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IMPACT ASSESSMENT REPORT

Accompanying the documents

Proposal for a
REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on multimodal booking and repealing Regulation (EC) No 80/2009

Proposal for a
REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on rail ticketing

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Glossary

Term or acronym	Meaning or definition
API	Application Programming Interface
B2B	Business-to-Business
B2C	Business-to-Consumer
CRS	Computerised Reservation Systems
DC system	Direct Connect system
DMA	Digital Markets Act
DSA	Digital Services Act
EC	European Commission
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
EEA	European Economic Area
FRAND	Fair, Reasonable and Non-Discriminatory
GDP	Gross Domestic Product
GDS	CRS is also known as Global Distribution System
LCC	Low-Cost Carrier
MaaS	Mobility as a Service
MIDT	Market Information Data Tapes (from airline booking systems)
MSE	Meta-Search Engine
MDMS	Multimodal Digital Mobility Services
MMTIS	Multimodal Travel Information Services
NAP	National Access Point
NEB	National Enforcement Body
NCA	New Content Aggregator
NDC	New Distribution Capability
OPC	Open Public Consultation
OTA	Online Travel Agent
PM	Policy Measure
PO	Policy Option
PSO	Public Service Obligation
RU	Railway Undertaking

SERA	Single European Rail Area
SMP	Significant Market Presence
SSMS	Sustainable and Smart Mobility Strategy
TMC	Travel Management Company

1. INTRODUCTION: POLITICAL AND LEGAL CONTEXT

This Impact Assessment (IA) accompanies two new legislative proposals seeking to improve the functioning of the online ticket distribution market for passenger transport in the EU and foster the availability of single tickets in rail.

The **Regulation on Multimodal Booking** (RMB) targets all ticketing platforms for passenger transport in **waterborne, air, rail, and road** and will set rules to establish a level playing field across all actors in the distribution chain, and to ensure fair cooperation with transport operators.

The **Rail Ticketing Regulation** (RTR) targets railway undertakings (RU) and will set rules on access to **rail** tickets as well as access for RUs to rail ticketing platforms.

The RMB proposal includes the repeal of **Regulation (EC) No 80/2009 on a Code of Conduct for Computerised Reservation Systems** ('CRS Code of Conduct'[1]) whilst updating and integrating the provisions that remain relevant.

These initiatives are needed because, as highlighted in the **political guidelines for the European Commission 2024–2029**[2], it is currently difficult for travellers to find, compare, combine and book tickets for regional and long-distance journeys in the EU[3]. This becomes significantly more difficult when combining offers from multiple operators and is particularly challenging in the case of cross-border train travel, which limits the attractiveness of rail for such journeys. A **2024 Eurobarometer survey on ticketing**[4] showed that a third of all respondents have never booked a multimodal journey (e.g. combining trains, planes or coaches), and over a third of respondents who booked such journeys reported difficulties in doing so. Barriers included the inability to find a suitable combination, lack of information on where to search for such offers and not being able to buy all the tickets in one place. According to the survey these barriers were higher for journeys involving multiple railway undertakings. Another major concern for rail passengers is that they often do not enjoy passenger rights when their journey involves different RUs. While the passenger rights dimension falls outside the scope of this IA, since it does not concern ticket distribution and is addressed through a targeted revision of the **Rail Passenger Rights Regulation**, which will ensure that tickets purchased in a single transaction on one platform are treated as "single tickets", thereby granting passengers full rights for the entire journey. This targeted revision is supported by an analytical Staff Working Document which updates the assessment of impacts from 2017 of the related policy measure. To maximise the effectiveness of both initiatives, SDBTR will ensure that RUs cannot withhold platforms from combining their tickets into "single tickets". These complementary initiatives are all expected to strengthen passenger confidence and help unlock the potential for a modal shift towards rail.

1.1. Political context

These initiatives aim to promote a more multimodal and sustainable transport system and contribute to **Sustainable Development Goals** SDG#3 ("Ensure healthy lives and promote wellbeing for all at all ages"), SDG#9 ("Make cities and human settlements inclusive, safe, resilient and sustainable"), SDG#13 ("Climate Action"). The **European Green Deal**[5] sets a goal of reducing transport-related greenhouse gas emissions by 90% by 2050, compared to 1990 levels, and the **Sustainable and Smart Mobility Strategy (SSMS)** refers

[1] OJ L 35, 4.2.2009, pp. 47–55.
[2] 'Europe's choice - Political guidelines for the next European Commission 2024–2029: '*Cross-border train travel is still too difficult for many citizens. People should be able to use open booking systems to purchase trans-European journeys with several providers, without losing their right to reimbursement or compensatory travel. To this end we will propose a Single Digital Booking and Ticketing Regulation, to ensure that Europeans can buy one single ticket on one single platform and get passengers' rights for their whole trip*'
[3] These initiatives do not apply to local or urban transport services.
[4] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024
[5] COM (2019)640 final

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to simpler multimodal ticketing and possible regulatory action on multimodal digital mobility services (MDMS), together with an initiative on ticketing, including rail ticketing (Action 37) as supporting actions to achieve this ambition[6].

After four legislative railway packages, the Single European Rail Area has been opened to competition, resulting in a more diverse, improved and more affordable offer to passengers[7]. In 2024, passenger rail km grew by 5.8%, driven by strong consumer demand and the launch of new services, including by new entrants. However, whilst significant progress has been made on other fundamental elements of the Single European Railway Area, such as common infrastructure development, improved interoperability and capacity management, rail ticketing remains a significant structural weakness. The digital revolution in retail, experienced in other sectors (hotels, flights) has not materialised for rail. Incumbent companies act as gatekeepers, who operate the vast majority of services while also owning the established ticket platforms. They can leverage incumbency to disadvantage competing platforms by sharing data and offers selectively and exclude competing operators by refusing to sell their tickets on the main platform. This situation limits price transparency and makes new operators commercially invisible, undermining the business case for new rail services that would drive affordability and induce a modal shift. For new operators, ticket distribution is key to reaching customers.

Directive 2012/34/EU[8] recognised the importance of market-developed common information and through-ticketing systems[9] , which should be interoperable and non-discriminatory and enable passengers to plan journeys and book tickets across the EU. Improving rail ticketing is also highlighted as a priority in the **Communication on connecting Europe through high-speed rail[10]** and the **Action plan to boost long-distance and cross-border passenger rail[11]**.

The Council also underlines digitalisation as a key driving force to EU transport competitiveness and stresses that multimodality depends on interoperable travel information, ticketing and payment systems[12]. The **Letta Report on the Future of the Single Market**[13] highlights that "*to facilitate new entrants' access to service facilities and ensure fair competition in the railway sector, especially in relation to ticket vending, there is a pressing need for an EU-wide, integrated, multimodal information, ticketing, and payment services framework. In that field, significant advancements in developing interoperable and non-discriminatory sector-led initiatives are still ongoing, while a conducive regulatory environment for such services is still lacking"*. The **Draghi Report on the Future of European Competitiveness**[14] also states that "*market barriers remain for new entrants who in some cases face high track access charges and difficulties in accessing equipment and ticketing systems. This weakens the ability of providers to scale up and operate across borders"*.

1.2. Legal context

Article 102 of the Treaty on the Functioning of the European Union (TFEU) prohibits abuse of

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[6] COM (2020)789 final

[7] European Commission: Directorate-General for Mobility and Transport and EY, *Study on passenger and freight rail transport services' prices to final customers – Final report*, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2832/403804

[8] OJ L 343, 14.12.2012, p. 32, as amended by OJ L 352, 23.12.2016, p. 1.

[9] Under the provisions of this Directive, Member States may require RUs operating domestic passenger services to participate in common information and integrated ticketing schemes for the supply of tickets, through-tickets and reservations, provided these schemes do not distort the market or discriminate between RUs. A through-ticket represents a transport contract covering multiple connected legs of a journey, entitling passengers to certain rights (re-routing or a refund, assistance, and potentially delay compensation based on the time of arrival at the final destination) in case of a missed connection between services covered by that ticket.

[10] COM (2025)903 final

[11] 2022/2022(INI)

[12] https://data.consilium.europa.eu/doc/document/ST-8824-2021-INIT/en/pdf

[13] Letta, Enrico. *Much More Than a Market*. Council of the European Union, 2024, p. 85

[14] Draghi, Mario - *The Future of European Competitiveness: In-Depth Analysis and Recommendations.* 2024, p. 213

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dominance. In line with this provision, the Commission, as well as national courts and competition authorities across the EU, have investigated online ticket distribution practices, in particular in the rail sector, such as restricting access to ticketing data, and imposing unreasonable fees and technical requirements to third-party platforms. The large number of cases shows that the issue is systemic and further outlines the necessity of an EU-wide regulatory intervention. Member States have also adopted legislation to support the development of MDMS.

In France, transport service operators[15] must grant access to their digital sales channels, to allow the distribution of their tickets[16]. In Finland, the 2018 "**Act on Transport Services**"[17] also requires transport authorities and operators to make their tickets available on MDMS platforms[18]. In 2017, the Dutch Ministry of Infrastructure and Water Management and the interested Regional Authorities launched **seven pilot projects for regional MDMS**[19] requiring compliance with common rules and transparent conditions. In Spain, the 2025 "**Sustainable Mobility law**"[20] establishes rules for distribution agreements between transport operators and multimodal ticketing platforms. In Sweden, regional authorities are progressively moving toward a **unified digital ticketing system**[21], with initiatives to integrate local and regional tickets into single platforms accessible via mobile apps or smart cards.

1.3. Synergies with other EU policy instruments

Digital Transport policies: The **ITS Directive**[22] establishes a framework for the deployment of Intelligent Transport Systems in the road sector and its interfaces with other modes of transport. Under the Delegated Regulation on **multimodal travel information services (MMTIS)**[23] Member States must establish national access points constituting a single point of access for data users to the static, historic, observed and dynamic travel and traffic data of different transport modes, for the purpose of providing multimodal travel information services. Developing MDMS platforms capable of reservations, bookings, or ticketing however requires additional data (e.g. real-time fares).

Under the rail interoperability Directive (EU) 2016/797[24], the Commission developed **functional and technical specifications for telematics applications (TEL TSI)**[25] supporting the interoperability of data sharing in rail transport.

Horizontal data policies: To complement the general principles of the **Digital Markets Act**[26] in relation to MDMS platforms, sectorial measures are considered in the RMB proposal. These ensure that they do not impose general conditions that would be unfair or lead to discrimination. They complement the rules of the DMA applying to gatekeepers as MDMS platforms fall below the DMA's thresholds. The RMB proposal is also complementary to the **Digital Services Act**[27] **(DSA)** provisions as it also supports a safe, predictable, and trusted online environment. **The Data Act**[28] **(DA)** has synergies with the RMB proposal, through harmonised

[15] Only public transport services organised by regions and privately run rail, road, and maritime services within regional/100 km limits are subject to that obligation.
[16] Law No. 2019-1428 of 24 December 2019 on Mobility Orientation, Article 28.
[17] Act on Transport Services (320/2017; amendments up to 731/2018 included).
[18] A mobility service provider in Finnish law is any company or operator that offers transport services or services connected to transport (trip information, ticketing/brokerage, dispatching, parking, or other supporting mobility services).
[19] 1900019 Brochure MaaS-pilots A4-EN.indd (dutchmobilityinnovations.com).
[20] Law 9/2025 of 3d December on Sustainable Mobility, Article 92.
[21] Samtrafiken's National Distribution System - Services | Samtrafiken
[22] OJ L, 2023/2661
[23] OJ L, 2024/490
[24] OJ L 138, 26.5.2016, p. 44–101.
[25] OJ L, 2026/253, 10.2.2026, p. 1.
[26] OJ L 265, 12.10.2022, p. 1–66.
[27] OJ L 2022/2065, 19.10.2022
[28] OJ L 2023/2854, 22.12.2023

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rules on data sharing including rules on Business to Government (B2G) data sharing and rules on unfair contractual agreement terms. In addition, the rules on Artificial Intelligence[29]complement the RMB proposal by establishing rules on AI systems used by MDMS platforms, ensuring safety, transparency, and respect of fundamental rights.

Commercial practices policies: The revised **Directive on Unfair Commercial Practices** prohibits undisclosed advertising and paid promotion for higher ranking of products within search results on MDMS[30]. The RMB proposal complements these acts with measures that ensure that search results on MDMS platforms are displayed in a neutral way (setting out a list of mandatory ranking criteria and indicating which criterion was used for display), prohibit self-preferencing and paid prominence, allowing advertised content only under certain conditions.

Passenger rights policy: The recast Regulation on rail passengers' rights and obligations[31] entered into force in June 2021 and applies from June 2023. It replaces the initial EU rules in the domain that applied since 2009. The Regulation improves real-time travel information, introduces data-sharing rules for operators and third parties (including ticket vendors and other RU) when they have an agreement, adds a self-rerouting right, and requires RU under the same ownership to offer through-tickets. A targeted revision of this Regulation is being undertaken in parallel to this initiative to increase rights for rail passengers holding a single ticket for a single journey with multiple RUs, booked on a single platform in a single transaction. SDBTR complements this revision by creating the conditions for rail travellers to book these single tickets. The Commission adopted a proposal in 2023 for passenger rights in the context of multimodal journeys[32] that puts forward rules to ensure the protection of passengers when switching between different transport modes. It proposes that passengers with single contracts for a multimodal journey should be assisted in the event of travel disruptions and suggests a specific liability regime for intermediaries who combine separate tickets into a multimodal journey that the passenger buys from them in a single transaction.

Other initiatives: The **CountEmissions EU[33]** and **Flight Emission Label[34]** initiatives set out a common framework to calculate and report transport-related greenhouse gas emissions. Transparent information applied across modes will enable passengers to choose the most sustainable options for their trips. The **Transition Pathway for Tourism[35]** sets up a common European data space for tourism with the objectives to facilitate stakeholder cooperation and to encourage the active sharing of tourism-related data including mobility data. The **Report from the Commission to the Council on the implementation of the European Tourism Agenda 2030**[36] mentions multimodality as a key enabler of competitiveness in the sector.

1.4. Evaluation of the Regulation on a Code of Conduct for CRS

A particular type of MDMS, active in the business-to-business (B2B) segment, are the Computerised Reservation Systems (CRSs)[37]. These were created by airlines in the 1960s, to grant travel agents access to air

[29] OJ L, 2024/1689, 12.7.2024.
[30] OJ L 328, 18.12.2019, p. 7–28.
[31] OJL 172, 17.5.2021, p. 1–52.
[32] COM (2023)752
[33] COM (2023) 441
[34] OJ L, 2024/3170.
[35] European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *Transition pathway for tourism*, Publications Office of the European Union, 2022
[36] COM (2025) 763 final
[37] CRS aggregate and provide information on travel options (inter alia schedules, availability and fares) of different airlines and rail operators to online and offline travel agents and Travel Management Companies. Unlike B2C MDMS they do not sell directly to consumers but enable travel agencies to book tickets on behalf of their clients (Sabre, Amadeus, Travelport).

offers. Specific rules were adopted in 1989[38] to avoid risks of anti-competitive behaviour by CRSs. These were later revised in 2009[39] to regulate the business-to-business transactions between the providers of CRSs and air and rail carriers, and travel agents. The **CRS Code of Conduct was evaluated in 2020[40]** to assess whether, in light of market and technological changes in air B2B ticket distribution, it is still relevant in achieving the objectives of (i) preventing distortion of competition between CRSs owned by parent carriers, and (ii) ensuring fair and effective competition between carriers; and, whether it remains fit for purpose given broader horizontal legislation. The evaluation concluded that **the Code has not fully ensured a level playing field for all participating carriers, as regards access to, and use of CRS services,** since it did not lead to better balancing of the bargaining power of different-sized air carriers vis-à-vis CRSs. Some carriers expressed concerns about specific clauses in their contracts with CRS providers, reducing the ability of airlines to use alternative booking systems or technology. Moreover**,** the evaluation concluded that **the transparency requirements, in the form of the neutral display, remain important,** since travel agents, both offline and online, and travel management companies still heavily rely on CRS data especially for business travel. The evaluation also concluded that **specific sectoral treatment of traditional CRS providers may no longer be justified in view of market and technological developments in air ticket distribution** (increased internet penetration, the rise of other channels and divestment of airlines from CRSs). More details on the evaluation, and its links with this impact assessment, are presented in Annex 10.

2. PROBLEM DEFINITION

2.1. What are the problems?

The problems, problem drivers and consequences identified are presented in Figure 1.

Figure 1: Problem tree

[38] Council Regulation (EEC) No 2299/89 of 24 July 1989 on a code of conduct for computerised reservation systems, OJ L 220, 29.07.1989, p. 1-7.
[39] Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems.
[40] SWD (2020)9

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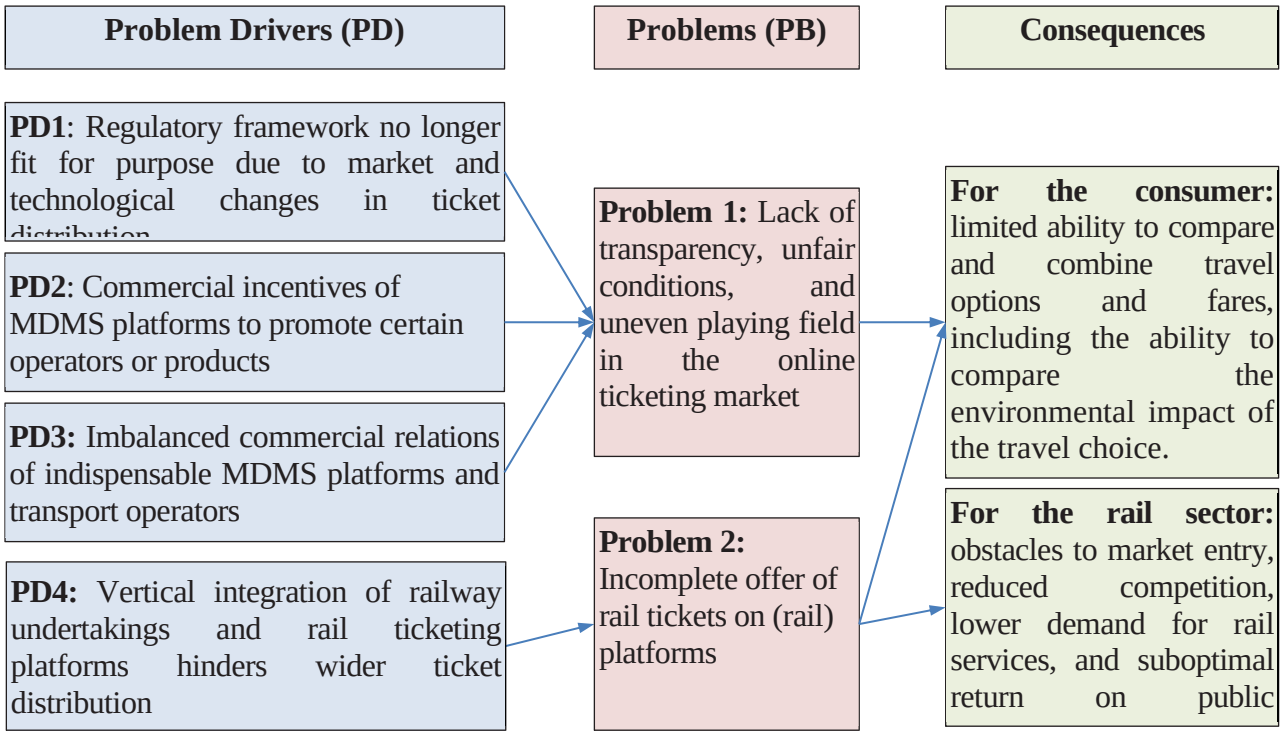

This initiative identifies 4 problem drivers and addresses two market failures in online ticket distribution, which are described in more detail in *Problem 1: Lack of transparency, unfair conditions, and uneven playing field in the online ticketing market* and *Problem 2: Incomplete offer of rail tickets on (rail) platforms*. These problems have consequences in the operational rail service market and means consumers do not find all travel choices on online platforms. The latter limits their ability to compare and combine travel options and fares, including on their environmental impact. To better understand the magnitude of the consequences on consumers, including the potential for behavioural change and their ability to make more sustainable travel choices, several questions must be considered:

1) Do alternative travel options exist?
2) Are travellers willing to changes their habits?
3) Is travellers' ability to make alternative choices impaired?

To answer the first question **an EU-wide analysis of 100 origin-destination routes** (performed in the context of the impact assessment support study[41]) assessed the level of completeness of information and tickets on B2C MDMS platforms across modes. The routes were selected to represent

Figure 2: 100 origin-destination pairs

[41] Ricardo et al. (2026), Study supporting the MDMS and SDBTR Impact assessment.

different levels of (1) attractiveness[42], (2) traffic intensity and (3) distance, and ensure (4) good geographical balance and (5) matching availability of transport modes with modal split data on EU passenger traffic from Eurostat. The analysis compared the options shown on Omio[43] with a fuller set of possibilities identified through Google Maps (for land and sea) and Google Flight (for air)[44], and found that multimodal options were available on 76% of the routes, yet today, even though some MDMS platforms show options in different modes, these are rarely combined. In fact, in the analysis 39% of possible rail or coach connections were not visible on the MDMS platform, let alone being combined. This is worse for rail options, which were entirely absent from the MDMS platform in 29% of cases, but visible on at least one rail platform. Looking at coach only 7% of routes had missing connections. Furthermore, for 17% of the routes faster connections existed on operators' platforms and in 34% of the routes, cheaper connections were available on operator websites, though the latter finding was not sufficiently robust to include in the quantitative analysis as a possible cost saving [45]. The 100 origin-destination analysis illustrates that alternative travel options, including multimodal ones, exist, yet these options are neither displayed nor combined by MDMS platforms. The problem is bigger when looking for options that include more than one RU.

"One concrete example is with the Polish operator PKP. To travel with PKP between Warsaw and Gdansk, you need to buy your ticket on PKP. Third party platforms (Trainline, Omio, RailEurope) don't have access to the data to provide those tickets to travellers." T&E

"To understand everything that is wrong with European train ticketing, the perfect test case is Nice to Milan. A route which should be competitive with road and air, but there are no through trains, no through tickets, no timetable co-ordination, you must buy a Nice-Ventimiglia ticket on the French Railways website then a Ventimiglia to Milan ticket on the Trenitalia website, two tickets mean zero passenger rights in the event of a missed connection. It can be sold as one journey, but still without passenger rights, at Raileurope.com or Thetrainline.com. If you know where to look, and only with an added booking fee." The Man in the Seat 61

"*When we look at independent platforms like Trainline, all railway companies are technically integrated, but not all services are fully accessible. For instance, there was a situation where Trainline users could book Deutsche Bahn tickets, but they couldn't use the Deutsche Bahn discount card on Trainline*." National (German) Consumer organization

The best way to answer the two remaining questions is to ask travellers directly: a **2024 Eurobarometer survey on Multimodal Digital Mobility Services** asked almost 26,000 citizens about their online booking experiences[46]. The Eurobarometer survey was designed to be representative for the EU population. More than three-quarters of respondents reply that environmental impact is important to them when planning a regional or long-distance journey. Nonetheless, while 21% of respondents report that this means they adapt their journey accordingly, 22% find it difficult to change their habits, and another 22% find it difficult to find

[42] The attractiveness of origin or destination nodes was assessed considering for each NUTS3 region the economic attractiveness (as indicated by the GDP by NUTS3 region from Eurostat), personal attractiveness (as indicated by the number of bed places for tourism per NUTS3 region from Eurostat), and its status as a capital city. The Nomenclature of territorial units for statistics (NUTS) is a geographical nomenclature subdividing the EU territory into regions at three different levels (NUTS1, NUTS2 and NUTS3 respectively, moving from larger to smaller territorial units). NUTS3 regions are those with population between 150,000 and 800,000. More details on the analysis of the 100 origin-destination routes are provided in Annex 4 (section 1.3.1).

[43] Whilst it only provides options for within-mode travel (e.g. bus-bus or rail-rail), Omio is used as a proxy for availability of travel options on MDMS as it is one of the most comprehensive independent MDMS platform for land travel in the market that allows to book travel options from different modes. Other platforms either lack multimodal booking (e.g. Rome2Rio only does re-linking) or have limited modal or geographic scope.

[44] Google Maps was used to list all possible within-mode and multimodal connections possible via land and sea and their associated journey times. Costs for these connections were collected by direct research on the websites of relevant operators. This was supplemented by additional information from Google Flights on possible direct air connections and their associated journey times/costs.

[45] A direct comparison of costs was only possible in 56 OD pairs, limiting the representativeness of the exercise, and the cost data collected directly via operator websites was for a point further in the future than the costs extracted from Omio.

[46] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024

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sustainable alternatives. More specifically, over a third of respondents who have experience with booking multimodal journeys (e.g. combining trains, planes or coaches), report that these journeys are difficult to book[47] and 31% of all respondents have never booked such journeys. The same holds for journeys combining different operators in one mode: more than a third of respondents who intended to book such journeys found them difficult to book[48] and 36% of all respondents have never booked such journeys. When asked why they had never or rarely booked combined journeys, 17% of respondents said they couldn't find a suitable combination, 5% lacked information, and another 5% could not buy all the tickets in one place. Confirming these results, in the open public consultation (OPC) for this impact assessment, 174 of the 226 respondents highlighted that they had difficulties booking and purchasing tickets combining different modes. The most common issue identified was that they had to visit multiple sites to find the information needed.

Concluding, travellers care about the environmental impact of their journeys and while one fifth already changes their habits today, another fifth finds it difficult to find, or buy, sustainable alternatives. So, what if travellers had the ability to see all (rail) offerings on MDMS platforms and could book all legs of their journeys on a single MDMS platform? Based on the answers from the Eurobarometer related to travellers' ability or difficulties in booking tickets, we can estimate the magnitude of the consequences for consumers. We start by looking only at respondents which, despite travelling by train in the last two years, indicated they rarely (13.2%) or never (16.9%) combined in one single journey two or more rail legs (connecting trains), operated by different rail operators. Next, we eliminate from that group (30.1% of citizens) all those that indicated they simply did not need to combine two operators on their journey(s), leaving us with 17.3% of citizens. Within that group we look at which reasons were given for not combining two rail operators and find that 8% of citizens either did not know it was possible, did not know where to search for such travel information, could not find a suitable combination or could not buy all tickets they needed in one place.

This means that up to 8% of people experience ticketing issues when trying to book multi-operator rail journeys in a single ticket. This however does not mean that if all ticketing issues were resolved and single tickets were widely available, all travellers experiencing those issues would change their habits and purchase those single tickets. They may still opt for other modes of transport, such as the car. Therefore, we only consider respondents that indicated they could not buy all tickets they needed in one place (1.7%). This group most clearly represents travellers who already knew which tickets they needed, and intended to buy them, but were prevented from doing so by ticketing barriers. Though not all of them would necessarily complete the purchase if the barriers were removed, it is also reasonable to assume that some respondents in the larger group of 8% which experienced ticketing barriers would also buy single tickets if these barriers were removed.

In conclusion, based on the Eurobarometer results, we estimate the magnitude of the consequences for consumers of limited ability to compare and combine travel options and fares, including the ability to compare the environmental impact of the travel choice, as the maximum potential increase in journeys using railway services, and a corresponding decrease in journeys using less sustainable modes[49] at 1.7%. This illustrates the dimension and size of the underlying problems 1 and 2.

2.1.1. Problem 1: Lack of transparency, unfair conditions, and uneven playing field in the online ticketing market

The growing digitalisation and broad access to internet has changed the online ticketing market for transport services, which is becoming increasingly diversified and includes a wider than ever range of stakeholders, in both the B2C and B2B domains (see Figure 3). Multimodal Digital Mobility Services **(MDMS)** are platforms providing traffic and travel information (e.g., schedules, tariffs and availability of services) and enabling the distribution of tickets, directly or via re-linking, for two or more transport operators, operating in one or more

[47] 5% selected the response 'very difficult' and 30% 'rather difficult'.
[48] 6% selected the response 'very difficult' and 30% 'rather difficult'.
[49] See section 1.3.2 of Annex 4.

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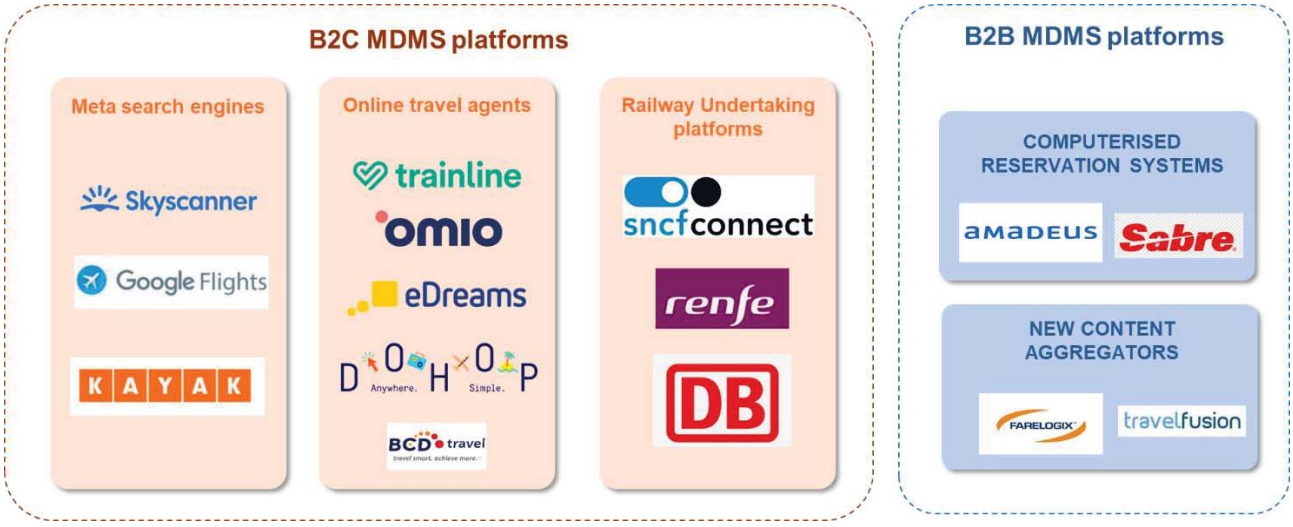
transport modes. Online distribution channels of transport operators – used exclusively for the distribution of their own transport services[50] without offering third party tickets – are not considered to be in the 'platform market' and do not qualify as MDMS within the meaning of this initiative, therefore falling out of its scope. Similarly, online search engines that direct end-users to different types of websites, including but not limited to websites where transport products are sold, do not qualify as MDMS, therefore also falling out of its scope. Finally, multimodal travel information services that provide journey planning to end users, but do not facilitate booking, whether directly or via re-linking (e.g. Google Maps, City Mappers), do not qualify as MDMS.

Figure 3: The online ticketing landscape[51]



This diversification creates opportunities to offer better and more tailored services to consumers but also raises issues when a level playing field between all actors is not ensured. The evaluation of the CRS Code of Conduct found that the rise of indirect distribution channels, such as New Content Aggregators (NCAs) that offer similar services as CRSs to travel agents, but without being subject to similar rules, presents a risk of distortion of competition between B2B MDMS platforms. In addition, the platform market has significantly changed and diversified over-time, with a wide range of new type of B2C platforms (see Figure above) that currently do not have to comply with neutral display requirements nor fair treatment of transport operators. These market developments, combined with the blurring boundaries between B2B and B2C distribution, drive the

[50] Including those of operators which they control, operators which control them or operators that are controlled by the same entity as the one controlling them and including those of operators that are part of the same economic undertaking (group). This includes Direct Connect systems, identified as a carrier system that does not provide aggregation and comparison service with other carriers which do not belong to their group and excludes code share and interlining agreements. Code share agreements allow an airline to market and sell flights operated by another airline under its own flight number. Interlining agreements enable airlines to issue tickets and manage passengers on journeys involving multiple airlines. These arrangements may also include cooperation with other transport operators (e.g. air-rail or air-coach). They are forms of operational cooperation, not ticket sales on behalf of other operators which ensure better connectivity, a wider range of travel options and may also be beneficial to consumers from the passenger rights perspective.

[51] Meta search engines (MSE) aggregate and present travel option(s) to users (schedules, availability and fares), redirecting them to other MDMS platforms (Online Travel Agents (OTAs)) or direct distribution channels (transport operator's website) to complete the booking for the selected option(s). Examples include Skyscanner and Google Flights. OTAs aggregate and offer travel option(s) from multiple operators and enable users to book tickets directly on the platform. This requires the MDMS platforms to have access to each operator's booking and reservation systems through standardised interfaces. Such platforms can be independent from transport operators (e.g., Trainline, Omio, eDreams) or be owned by an operator (e.g., SNCF Connect, DB Navigator). New Content Aggregators (NCAs) aggregate and present travel options (schedules, availability and fares) to online and offline travel agents. Examples include Travelfusion, Farelogix.

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need to (i) update the relevant provisions of the CRS Code of Conduct, and (ii) extend them to alternative business models in all modes.

In the interviews and targeted survey conducted in 2025 in the context of the impact assessment support study, one MDMS, four airlines / airline associations including A4E, one region and three CRS providers raised concerns about uneven regulatory treatment of B2B air ticket intermediation services and its potential risks of distortion of competition. Six airlines and the three CRSs, indicated that, while the Code is still relevant for traditional CRSs, it no longer reflects current market realities, including the growing role of other MDMS platforms (where transport tickets can be booked directly or via a re-linking feature), not subject to neutral display rules[52]. Across all stakeholder groups, 36 of 74 respondents to the targeted survey agreed with the problem as stated[53], whereas 7 disagreed. The remaining 31 neither agreed nor disagreed (7) or did not know (24). Among MDMS platforms, 13 of 19 respondents agreed (6 Online Travel Agents (OTAs), 2 CRSs, 2 NCAs and others MDMS providers), while 4 disagreed (2 OTAs, 1 rail platform and 1 Meta search engine (MSE)) and 4 did not know (rail platforms). CRS providers agreed, stressing that they face stricter rules despite handling a declining share of ticket sales, while views among NCAs were mixed[54]. Among transport operators, 11 of 31 agreed, while three partially disagreed. Four airlines, including airline associations, called for an update of the Code of Conduct, noting that it predates the rise of NCAs and airline websites and highlighting that OTAs, MSEs and other MDMS platforms playing a role in distribution are not subject to comparable rules. One operator suggested extending core principles – transparency, equal access and fairness – to all MDMS platforms. Among national authorities, 6 of 13 agreed, 1 disagreed, and 6 were neutral or did not know. Other responding stakeholders mostly agreed with the problem and A4E found that the regulation should reflect technological developments and ensure transparent, unbiased consumer access across all transport modes.

"*The Code of Conduct for Computer Reservation Systems (CRS) contributes to a distorted and outdated airline distribution system. This code mandates how air content (e.g., prices, schedules) must be displayed, but it only applies to regulated CRS platforms, not to many newer B2B and B2C digital solutions. As a result, significant portions of the distribution landscape operate outside its scope, leading to inconsistencies and reduced flexibility for airlines, particularly in Europe.*" a B2B MDMS in an interview

Indeed, MDMS platforms may design search algorithms to prioritise certain transport services and relegate competing services to less visible positions, display journey times or prices in a way that makes some services appear more attractive or exclude travel options to promote services for which they receive financial incentives, or which are sold by their parent company. During an interview, an association of airlines expressed concern that OTAs and MSEs (whose business consist of displaying travel information and price of several transport operators to end-users, re-linking them to the websites where they would be able to book their journey) tend to promote operators or products based on commercial interests rather than objective consumer value. Similarly, MDMS platforms (both OTAs and MSEs) do not always display available information on GHG emissions, which would allow users to compare the environmental impact of their travel choice.

In the targeted survey, two medium-sized airline operators raised concerns about major OTAs selectively promoting certain operators or adding non-transparent fees, which misleads consumers and distorts competition. The European Regions Airline Association mentioned that regional airlines in particular struggle

[52] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment.

[53] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers identified. This paragraph reflects answers from stakeholders on the following problem: Potential distortion of competition between regulated (CRS) and non-regulated B2B distribution channels performing similar functions to CRS.

[54] One saw no unfair competition, while another acknowledged the Code's benefits in preventing abusive practices such as biasing but supported its review to address technological developments and the extension of core principles to unregulated actors, including OTAs.

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to compete fairly due to limited economies of scale and the prioritisation of major carriers by gatekeeping platforms, reducing consumer choice especially for connectivity to peripheral areas in Europe. In this sense, eight stakeholders[55] called for stronger regulation to ensure neutral display obligations, prevent discrimination and mandate transparency in how content is presented on MDMS platforms. Conversely, MDMS platforms detailing their views in the survey pointed out to unfair practices from transport operators leading to distorted information on platforms. An OTA stated that certain airlines "limit the comparability, availability and attractiveness of their services on indirect distribution channels", which "harms consumer choice and competition." Another OTA reported that "some operators restrict the information that can be shown on MDMS platforms creating barriers to providing accurate and comprehensive content".

The Frankfurt am Main Higher Regional Court (Oberlandesgericht Frankfurt am Main) published a decision on 2 October 2023[56] prohibiting DB's ticketing platform DB Navigator to offer a "show fastest connection" search filter. This filter was found to mislead consumers by not displaying all possible connections that were fast. The filter, preset by default, prioritised DB's own services even if alternative options existed that were faster but had different departure or arrival times. This algorithm thus deprived competitors of the opportunity to compete fairly and influenced consumer choices towards DB products. The court deemed this practice to be a form of anti-competitive behaviour, as it manipulated search results in DB's favour. This competition case has been cited by three new entrant railway undertakings and one passenger organization during interviews, as a clear example of abuse of dominance of indispensable RU and the inability for new entrants to compete fairly.

Finally, MDMS platforms, can have such Significant Market Presence (SMP) or strategic position that they become essential gateways to consumers. Access to such platforms is thus crucial for transport operators. When two transport operators compete with similar services (e.g. connections between the same two airports / train stations) and one of them does not have access to the dominant platform for the distribution of such services, then its access to the service market is also restricted. Transport operators, and in particular different sized air carriers, enjoy uneven access to and use of CRSs. Despite the decline in the share of total tickets sold in the EU air ticket market through CRSs - selling approximately 22% of those tickets in 2024[57], CRSs still hold a strategic position in the air ticket distribution market thanks to the symbiotic relationship between CRSs and traditional travel agents and dynamics such as single homing[58] of travel agents. Partially compensating for the decline in market share from CRSs, sales through non-CRS B2B channels increased from 5% to 9% between 2019 and 2024. As a result, in 2024 B2B MDMS distribution remains relevant at approximately 31% of the overall air tickets sold in the EU. At the same time, 73% of all ticket selling channels are connected through a CRS[59], which thus continue to occupy a unique position, particularly for small and medium sized airlines which rely on CRSs to effectively reach large travel agents' networks and be visible for consumers. Between 2019 and 2024, the average CRS's booking fee reached around EUR 8.4 per flight segment[60] and airlines argue they should be able to withhold certain fares (notably cheapest fares) from these channels when distribution costs exceed the benefits[61]. However, the strategic position could allow CRSs to (i) impose highly

[55] Including Airlines for Europe, ALLRAIL, and ERA.
[56] Oberlandesgericht Frankfurt am Main, Decision of 2 October 2023, Case No
[57] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment.
[58] The practice of travel agents and OTAs to remain loyal to a single CRS, encouraged through financial incentives, IT equipment and free training.
[59] This 73% represents the heavy reliance of OTAs and travel agents on CRSs to distribute their tickets.
[60] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment, market report.
[61] One airline interviewed in the context of impact assessment support study indicated that every major European airline group utilises Amadeus CRS backend systems despite this charging 20 EUR per ticket sold.

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restrictive terms and conditions (such as full content parity clauses[62]) in exchange for lower fees[63]; (ii) and apply biased display practices, if the current legislation on CRSs were to be repealed**.** Small airlines are directly and most severely affected by the problem as they do not have the financial ability to develop Direct Connect systems[64] or set-up alternative distribution channels through new content aggregators. This ability, combined with the CRSs' need to provide a comprehensive offer to remain an attractive partner for travel agents, allows large airlines to negotiate better conditions. Despite that, CRSs hold a strong position in the business travel segment[65] and in the long-haul leisure travel segment in EU markets outside the operators' home market, as well as extra EU markets which makes all airlines still dependent from CRS in these segments.

In the targeted survey, the surveyed transport operators agreeing with *the potential distortion of competition between CRSs and non-regulated B2B platforms performing similar functions to CRSs* included 11 airlines / airline associations, alleging "the exploitative practices by dominant CRS providers"[66]. One airline's association and eight airlines argue that removing safeguard provisions such as fair treatment could expose airlines, in particular smaller ones, to discriminatory practices. One operator mentioned that regional airlines in particular struggle to compete fairly, due to the prioritisation of major carriers by MDMS, reducing consumer choice especially for connectivity to peripheral areas in Europe. One airline association, eight airlines out of 11 and BEUC (the European Consumer Organisation) raised concerns over full content parity clauses[67], which may reinforce the market power of established CRS and MDMS platforms. On the contrary, the three main CRS providers disagreed with Problem 1 outlining that they viewed access decisions as commercially rational rather than discriminatory[68], with difficulties arising from operator behaviour withholding content or market structure rather than MDMS practices. One MDMS provider added that if it costs too much to connect or there isn't enough customer demand, they may not add a transport offer. 9 out of 20 MDMS providers, including two associations, highlighted that the real challenge lies in gaining access to operator information.

2.1.2. Problem 2: Incomplete offer of rail tickets on (rail) platforms

All incumbent RUs (except in PL, see **Error! Not a valid bookmark self-reference.**) have Significant Market Presence (SMP) in the national transport service market, i.e. a market share above 50% in terms of

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[62] Full content parity clauses require airlines to provide the same flight content and prices to a CRS as to other distribution channels, preventing airlines from offering better or differentiated terms elsewhere.

[63] In an interview, an airline indicated that the big three CRSs account for 50% of the airline revenue and that, during the pandemics, they were about to exit contracts with two of the big three due to "unacceptable conditions". Two airlines' associations and three airlines highlighted the role of contractual provisions such as full content obligations and parity clauses in reinforcing the commercial position of dominant CRSs. They also argue that these mechanisms have limited flexibility and slowed the entry of new distribution models. One airline noted, such conditions "*placed commercial advantage with CRSs to maintain their incentive structures, locking agencies in*".

[64] Direct connects directly connect airlines to travel agents, bypassing CRSs and their fees.

[65] The corporate segment is lower in terms of volume but much more profitable than the leisure segment. One major airline interviewed indicated that the profitability of airlines is to a large extent dependent on corporate/business travel bookings that are managed by travel agents/ Travel Management Companies (TMCs) that in turn rely on CRSs to make the bookings.

[66] ERA highlighted the important role CRSs play in enabling fair competition between small and large carriers. One operator noted that access conditions vary widely across MDMS platforms, with high integration costs and selective policies disproportionately affecting smaller or regional operators. A large operator indicated that airlines may not have difficulties in accessing MDMS platforms but have difficulties with the costs associated with this access, noting that for some newer or smaller airlines, the cost may lead to a "negative business case".

[67] Two airlines and two airline associations in the interviews further argued that B2C platforms taking the feed from CRSs gain unrestricted access to content without the need to negotiate commercial terms with air carriers. They also argue that this dynamic, coupled with the limited bargaining power of smaller airlines, risks to further strengthen the market power of both B2B and B2C MDMS providers.

[68] One CRS mentioned that the inclusion of operators is based on "a positive business case driven by consumer demand," noting that factors such as API integration costs, commission levels, and maintenance fees determine feasibility. Another CRS disagreed with the problem while cautioning that mandating access on operator-owned platforms could "reinforce their dominant position" in distribution markets.

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passenger kilometres. All of them also have one or more digital ticket sales channels, 19 of which are MDMS platforms as they also sell tickets of other RUs or operators in other modes, while only 6 sell their own tickets and are greyed out in the chart. The platforms owned by incumbent RUs have a very large customer base and are the standard reference for rail ticket customers. National competition authorities and economic studies consistently show that the vast majority of consumer searches and online ticket sales are concentrated on the RUs with SMP's proprietary digital channels (websites and mobile applications), while third-party ticketing platforms account for only a limited share of transactions[69]. For example, the 2021 report of the Monopolkommission[70] shows that among major online platforms for long-distance rail tickets in Germany, about 90% of website visits go to Bahn.de, indicating DB's dominant position in online distribution markets[71]. This renders the incumbent platforms an indispensable distribution channel for any rail operator offering transport services in the respective national market. This is particularly the case of platforms that sell tickets of multiple RUs, as customers may not realise that their offer is incomplete and are thus less likely to make alternative searches. On the other hand, when it is clear for customers that they must look elsewhere to access tickets of competing RUs, they are more likely to use competitors' or independent platforms. Accordingly, in the rest of this document, the ticketing platforms owned by incumbent RUs (the 19 in blue in Figure 4) are referred to as 'indispensable RU platforms', but not when they do not sell third party tickets (the 6 in grey in Figure 4).

Figure 4: Incumbent market share (in terms of pkm) in the passenger service market per Member State (2022)

Source: Rail market monitoring (RMMS), July 2025

Indispensable RU platforms often display only the offer of certain train services, excluding competing offers despite those services being cheaper or more convenient for passengers. The exclusion of competing RUs or other transport operators may also arise due to stringent integration requirements or high service fees[72]. Evidence supports the concern of uneven access: the French transport authority (ART) found[73] that new entrants receive no visibility on incumbent rail platforms, which mainly display the incumbent's own services and those of its partners. For example, SNCF Connect does not display the offers of Trenitalia France. Similar

[69] A Commission investigation into Renfe found that in 2021 Renfe's own online direct channels accounted for 80-90% of its total online ticket revenues (a fair proxy of the total size of the potential market for online rail ticketing services in Spain), with third-party platforms representing only 10-20%. On this basis, the Commission took the initial view that Renfe, as a vertically integrated dominant RU, holds a dominant position in the potential downstream Spanish online rail ticketing market through its proprietary distribution solutions. However, the Commission recalled that Renfe's potential dominance in the Spanish online rail ticketing market had no bearing on the preliminary finding that Renfe's dominant position in the Spanish passenger rail market would likely be leveraged and lead to the elimination of effective competition in the ticketing market (see Annex 11). In France, a 2024 study by Compass Lexecon estimated SNCF Connect's market share in the online distribution of rail tickets to the general public at 80-90%. In Sweden, the Swedish Competition Authority found that alternative online channels represent only a marginal share of ticket sales and that the vast majority of ticket sales by SJ and other RUs occur via SJ's digital channels. A government public investigation further highlighted the limited competitive constraint exerted by the neutral platform Resrobot, which recorded around 10,000 bookings in 2019 compared to approximately 25 million bookings through SJ's digital channels (see Annex 11).

[70] Monopolkommission, Rail 2021: *Competition into the Timetable*!

[71] According to two industry associations and one NGO passengers primarily use indispensable RU websites for booking rail tickets. This statement has been outlined by T&E, ADN Mobilités and AllRail during interviews.

[72] As reported by All Rail and WestBahn in interviews.

[73] Autorité de régulation des transports, *Ouverture et utilisation des données de mobilité*, February 2025 p.25

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issues have been identified in Sweden in 2019, the Swedish Competition Authority examined allegations that Statens Järnvägar (SJ) abused its dominant position in ticketing by excluding competitors' tickets and altering search visibility (see Annex 11). The large customer base, incomplete offer and lack of transparency of indispensable RU platforms leads to many consumers not being aware of relevant offers: the 2025 FNAUT Opinion Way survey[74] shows that in France, despite over four years of operations, 55% of respondents have never heard of Trenitalia and only 15% of respondents know it well. Similarly, 68% of respondents have never heard of Renfe and just 11% know it well.

Example: On the ÖBB website, competing Westbahn services are only displayed in the trip planner, without price, and without the possibility to buy tickets (and not at all in the booking section).

The targeted survey conducted in 2025, in the context of the impact assessment support study, revealed opposing views between independent MDMS platforms and indispensable RU platforms, and other stakeholders on whether they agree with problem 2[75]. Most independent MDMS platforms that responded to the survey (14 of 20) disagreed with problem 2, as did most indispensable RU platforms that replied (4 of 5)[76], outlining that their business model relies on offering a broad range of content and that any absence of operators results from restrictive or economically unviable contractual terms imposed by those operators, or, in rare cases, concerns about service quality. By contrast, only 8 of 31 transport operators – of which 4 own an indispensable RU platform – disagreed with Problem 2[77] in the targeted survey, while 16 agreed[78]. In addition, 8 out of 13 national authorities that replied confirmed that some transport operators face uneven access to platforms. Similarly, 7 out of 11 NGOs and consumer organisations surveyed agreed, noting that platforms owned by railway incumbents dominate national markets and often restrict competitor access[79].

MDMS platforms willing to sell do not have access to all (rail) offers

Passengers struggle to find and compare alternatives offered by RUs and are often unable to book their entire journey through a single platform. The 2024 Eurobarometer survey on Multimodal Digital Mobility Services shows that ticketing barriers are higher for rail journeys involving multiple RUs: 23% of respondents could not find a suitable combination, 11% did not know how to find information and 9% could not buy all tickets in one place. The higher barriers to finding single ticket journeys involving different RUs makes rail less accessible and attractive for passengers and limits its potential to contribute to a more sustainable and

[74] 2025 Opinion Way survey for FNAUT
[75] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers identified. This paragraph summarises the views of stakeholders on the following problem: *Uneven access of operators to indispensable MDMS platforms.*
[76] *EUTT (an association representing independent* ticketing platforms) and the MDMS platform Dohop confirmed that operators are included based on commercial viability and that they have no incentive to discriminate. Indispensable RU platforms added that integrating third-party offers can be disproportionately costly when expected demand is low.
[77] 16 out of 31 agreed, 7 neither agreed nor disagreed/did not know and 8 disagreed (including 4 incumbent RU)
[78] Amongst those agreeing, AllRail stated that uneven access to indispensable RU platforms restricts competitor visibility and hampers market entry. In a follow-up interview, Flix stated that DB's ticketing platform reduces the visibility of competing services, including by omitting price information or placing them in less prominent positions, despite legal obligations on fair visibility, a practice also recognised by the Frankfurt am Main Higher Regional Court (see Annex 11).
[79] They pointed to a gatekeeper effect that limits competition and consumer choice and highlighted the high technical, financial, and commercial barriers faced by smaller operators when attempting to integrate with these dominant platforms.

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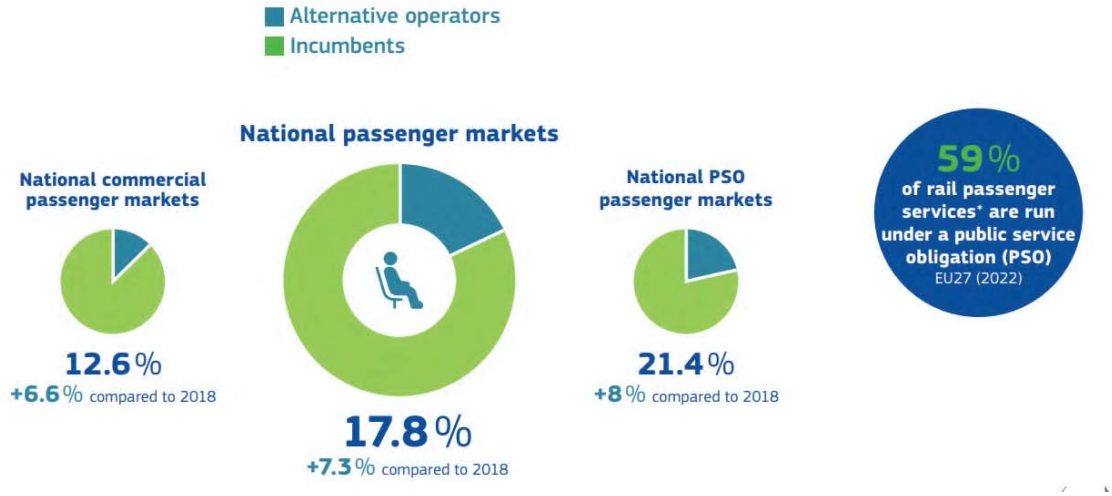
multimodal transport system. It is therefore essential that platforms have access to tickets that RUs might not have an interest in sharing, but that are necessary to establish a critical mass of travel offers, in view of the number and scope of these connections and/or the lack of alternatives. This is the case of rail tickets for services provided by a RU that has a very large market share in a geographical area (see Figure 5)[80] or under a Public Service Obligation (PSO) contract[81] as well as in the case of cross-border services[82]. Accordingly, in the rest of this document, operators of these services are referred to as "indispensable RUs".

Figure 5: Market share of rail operators in 2022



Source: Rail market monitoring (RMMS), July 2025

A 2021 study conducted by St. Pölten University of Applied Sciences[83] examined the bookability of international rail journeys and found that approximately one third of customers fail to successfully purchase international train tickets. The study involved 76 participants who attempted 46 European routes on 20 ticketing platforms. Rail bookings failed ten times more often than flights and generally took 15-30 minutes to complete, compared to 5-10 minutes for flights.

In 2024, UFC Que Choisir compared train ticket offers on seven booking platforms in France[84] and eleven RU platforms across the EU[85], analysing 24 routes[86]. No platform showed all available train options. Even the most complete platforms, such as SNCF Connect and Trainline, lacked key international alternatives such as Trenitalia and ÖBB night trains. Availability, prices, and key details such as class differences or discounts varied widely and were often unclear until late in the booking process. Price differences for the same journey could exceed 85%, and inconsistencies were also observed between platforms of partner RUs, such as SNCF and Deutsche Bahn on the Paris-Frankfurt line.

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[80] As reported in the 9th monitoring report on the development of the rail market (SWD (2025) 239 final), in 2022, state-owned rail incumbents held 87.4% of the overall EU commercial passenger rail service market and 79% share in public service obligation (PSO) passenger services market. However, 13 countries still have a monopoly or a share of domestic incumbent in PSO passenger-km over 99% in 2023.

[81] Transport services awarded and operated in accordance with Regulation (EC) No 1370/2007. PSO passenger services represented 59% of the total passenger kilometres in the EU in 2022 (SWD (2023) 288 final). A PSO contract provides the RU the right (and obligation) to operate services on an, in principle, exclusive basis (on a network or on a bundle of one or more railway lines) in most cases or at least on the biggest part of the network served.

[82] In most cases there are no alternatives whilst cross-border rail services are highly relevant for EU connectivity and to decarbonise intra-EU long-distance travel.

[83] Preslmayr, T., Stütz, T., Gerstenmayer, T., & Kadam, H. (2021). *International rail ticketing: stumbling block on modal shift*. Eisenbahntechnische Rundschau (ETR) Austria, No. 6, pp. 72–78.

[84] SNCF Connect, Trainline, Tictatrip, Kombo, Omio, Rome2Rio, Rail Europe.

[85] Trenitalia, Renfe, SNCB, Deutsche Bahn, NS International, ÖBB, ÖBB Nightjet, CFL, HZPP, CD and Eurostar.

[86] UFC Que Choisir, *Transport Ferroviaire 'L'information tarifaire et les droits des consommateurs déraillent',* 2024.

A T&E study from 2025 compared special rail fares offered by RUs platforms and those available on independent MDMS platforms in four Member States. It showed that operator-specific promotional fares are often not accessible on third-party platforms, resulting in significantly higher prices for passengers who book outside the operators' own websites. The analysis covered routes in the Netherlands, Belgium, Denmark and Italy and found substantial price differences. In the Netherlands and Belgium, tickets purchased via independent platforms were on average 1.7 to 1.9 times more expensive than the special fares available directly from the railway undertakings. In Denmark, the difference was even more pronounced, with platform prices reaching up to six times the operator's promotional fare. In Italy, where one special fare was partially available on some platforms, prices were still around 16% higher on platforms that did not provide access to the discounted offer.

A poll conducted by YouGov for the NGO Transport and Environment[87] outlines similar results. The study surveyed 10,514 adults across seven European countries[88]. Overall, 61% of long-distance rail users surveyed faced difficulties while booking tickets. In total, 42% of participants wish to access more travel options on booking platforms, and 45.6% of respondents wish to be able to book a trip easily and combine tickets of different RUs on a single website. In addition, 43% of long-distance rail passengers surveyed state that they would book more rail travel if ticket booking was easier.

In the targeted survey, there was a distinct split in views, with incumbent RUs participating in the survey mostly disagreeing with the above-mentioned problem while there was broad support from respondents in other stakeholder groups[89]. Only six transport operators out of 30 participating in the survey agreed with Problem 2, mostly new entrant RUs, while one large national RU argued that offers should be displayed only if they provide for a positive business case. On the other hand, all 20 independent MDMS platforms responding to the survey agreed with Problem 2 as did all 11 'other' stakeholders (including consumer organisations, NGOs, individual experts). Consumer groups BEUC and EPF (European Passengers' Federation) highlighted issues in international rail travel, as it involves multiple national RUs with different booking systems, data standards, ticketing rules, refund policies, and real-time information protocols. Among national authorities, 10 out of 13 responding to the survey agreed with the problem.

2.2. What are the problem drivers?

Four problem drivers were identified which are considered exhaustive – addressing them is expected to tackle problems related to competition in the online ticket distribution market and foster completeness of the rail offer on MDMS platforms. Nevertheless, it should be acknowledged that the objectives of promoting multimodality and modal shift are also linked to other challenges, particularly those concerning infrastructure use and development, interoperability, as well as passenger rights. These issues are being addressed through other initiatives, for example, the 2023 proposal on the use of railway infrastructure capacity in the SERA[90], and infrastructure development under TEN-T[91], while data exchange and standardisation have been addressed through the functional and technical specifications for telematics applications (TEL TSI)[92].

[87] Transport & Environment, *"Here's what Europeans from 7 countries think of rail booking processes",* 22 October 2025, url: Here's what Europeans from 7 countries think of rail booking… | T&E
[88] France, Germany, Italy, Spain, Poland, Romania and UK.
[89] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers identified. This paragraph summarises the views of stakeholders on the following problem*: Limited and distorted information and access to tickets for consumers on MDMS, in particular for rail.*
[90] 2023/0271 (COD)
[91] OJ L, 2024/1679, 28.6.2024
[92] OJ L, 2026/253, 10.2.2026, p. 1.

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2.2.1. Problem Driver 1: Regulatory framework no longer fit for purpose due to market and technological changes in air ticket distribution (PD1)

This problem driver links to Problem 1 and reflects market and technological developments in air ticket distribution since the 1980s, when the first Code of Conduct was adopted. At the time, air ticket distribution was dominated by CRSs, whereas today it is a multi-pronged sector. The rise of sales through direct distribution channels (by 4 percentage points from 2019 to 2024) is driven by increased internet penetration, enabling EU consumers to book more easily via airline websites[93] and indirectly through MSEs or OTAs. The rise of direct connect systems (DCs) and NCAs is due to other technological and market developments[94] (see Annex 9).

Concerns arising from airline ownership of CRS providers was the original driving force behind the first CRS Code of Conduct. In the current market situation, with no airlines having a controlling right in B2B MDMSs, provisions of the Code of Conduct relating to parent carriers are no longer relevant. The cross-sectoral EU acquis in other areas has also changed the legal landscape. New regulatory horizontal frameworks of the digital economy have been introduced across the EU rendering some of the provisions of the CRS Code of Conduct redundant and/or creating problems of coherence. These include Platform to Business Regulation (P2B)[95] (and related guidelines) and changes to EU competition law (e.g. the revision of Vertical Agreements Block Exemption Regulation and Vertical Guidelines[96]). As regards the processing, access and storage of personal data, the GDPR[97] is directly applicable and covers most of the issues currently regulated in Article 11 of the Code[98]. Beyond this, the legislation on P2B contains an obligation for OTAs to be transparent about the parameters they use to rank offers. This applies in all situations, whereas under the Code, travel agents are obliged to use a neutral display, which goes beyond the P2B transparency obligations[99].

At the same time, technological and market developments have led to the emergence of new and alternative business models both in B2B and B2C sectors. In the B2B sector, NCAs are taking an increasingly important place in the market. Their growth can be explained in part by the technology they use, which gives airlines greater flexibility compared to CRS[100] and by the restrictive nature of CRS arrangements (such as parity clauses)[101]. This has led to the emergence of platforms that perform similar functionalities but are not subject to the Code of Conduct, including on neutral display obligations and related rules and thus benefit from fewer compliance burdens. This uneven playing field may discourage investment in technological advancement

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[93] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment. Most of the legacy carriers responding to the targeted survey indicated an increase in direct "own" distribution channels while some indicated also an increase in the share of NDC-based distribution in the period 2015-2019

[94] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment. NDC technology allows linking carriers directly with TAs and cheaper distribution through NDC aggregators. The share of tickets distributed with NDC technology is expected to increase as a report (Accenture, 2021) highlighted that after the outbreak of the Covid-19 pandemic, airlines have increased their investments in Direct Connect systems.

[95] OJ L 186, 11.7.2019, p. 57–79.

[96] OJ L 134, 11.5.2022.

[97] OJ L 119, 4.5.2016, p. 1–88.

[98] According to the majority of stakeholders consulted during the evaluation, the GDPR is enough to guarantee data protection and therefore Article 11 of the Code of Conduct can be repealed.

[99] Art 5(2) of the Code of Conduct states that when information is provided by a CRS to the consumer, the travel agent (subscriber) shall use a neutral display, unless another display is required to meet a preference indicated by a consumer.

[100] Airlines increasingly value customisable bundle fares and the ability to offer different services, which is limited in CRS providers using Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) which is a more static standard, while allowed by NDC technology used by NCAs and not always fully implemented by CRS providers. This lack of adaptability is driving some airlines, to shift sales to NDC channels where they can retain control over pricing and product design.

[101] In the interviews a NCA explained that "A key concern is the dominance of three main CRSs in Western Europe, which impose restrictive "full content agreements" on airlines. These agreements force airlines to offer identical content across all sales channels, limiting their ability to tailor pricing or offers based on the channel's cost. This restriction, coupled with technical limitations of the CRSs - such as their inability to support fare brand displays - hampers innovation and reduces consumer choice".

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among CRS providers and hinder their ability to compete on equal terms. On the other hand, travel agents and Travel Management Company (TMCs) may be disincentivised from innovating their distribution tools if this would result in the loss of incentives. This diverging regulatory environment may reduce incentives to modernise distribution and delay the emergence of innovations.

In the targeted survey, in which stakeholders have been asked to indicate to which extent this problem driver sufficiently identifies the causes of Problem 1[102], 26 of 65 agreed, 11 stakeholders partially disagreed and 28 stakeholders neither agreed nor disagreed (3) or did not know (25). 13 of 18 MDMS platforms surveyed agreed, while 5 did not know. In relation to transport operators expressing a view, 11 out of 27 partially disagreed with problem driver 1 identifying the causes of Problem 1, while 2 out of 27 agreed. Moreover, 14 out of 27 transport operators surveyed neither agreed nor disagreed (1) or did not know (13). The large number of 'don't know' can be explained by many transport operators expressing a view not being in the air sector. 7 airlines and 3 airlines associations recognised the importance of the CRS Code of Conduct, stating this plays a vital role in protecting airlines from discriminatory practices by CRSs. Many stakeholders surveyed nonetheless stated that the Code of Conduct needs to be revised to extend it further to reflect recent technological developments in distribution[103].

"*Regarding the CRS regulation, [the air carrier organization] agrees it is a good framework but considers it outdated and too narrow in scope. They propose repealing and replacing it with a broader regulation that covers not only CRS but also new aggregators like Travelfusion and OTAs*." An air carrier organization in interviews

2.2.2. Problem Driver 2: Commercial incentives of MDMS platforms to promote certain operators or products (PD2)

This problem driver links to Problem 1. MDMS platforms do not always act as neutral intermediaries, and their display is often influenced by commercial agreements in which operators pay for prominence. This is the case not only for indispensable MDMS platforms but also for smaller ones like for NCAs and B2C MDMS platforms (such as OTAs and MSEs) which are not currently subject to the CRS Code of Conduct or to similar requirements to offers displaying in an unbiased manner.

Firstly, these platforms tend to favour high-volume operators, creating more profitable partnerships, reducing technical complexity and boosting revenues. As one-stop shops for searching, comparing, and booking travel (especially flights) they can influence consumer choices. With no rules governing how results are displayed, information may be incomplete or ranking algorithms biased, giving an advantage to operators who pay higher commissions or have preferential agreements, despite rules on unfair commercial practices (as outlined in section 1.2). Cheaper, more convenient, or complex options may be ranked lower or excluded, potentially misleading consumers into thinking the displayed options are the best available when alternatives exist. This risk has further developed with the increasing use of AI, as algorithmic bias could further skew results toward certain transport modes or operators, and the lack of transparency in AI-driven rankings may undermine consumer trust, particularly if commercial partnerships influence outcomes, with dynamic pricing and personalised offers that risk exploiting users through opaque or discriminatory fare structures. In the context

[102] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers identified. This paragraph summarises views of stakeholders on the following question: to what extent do you agree that this problem driver sufficiently identifies the causes of potential distortion of competition between regulated CRS and non-regulated B2B distribution channels performing similar functions to CRS

[103] 5 airlines and one other industry group advocated for the extension of the non-discrimination and neutrality provisions to all MDMS platforms, including unregulated actors like OTAs, and emphasise the need for effective enforcement through national authorities. These stakeholders also stated that the revision should reflect technological advancements and ensure robust compliance mechanisms.

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of the study supporting the evaluation of the CRS Code of Conduct[104], some stakeholders have reported concerns about MSE engaging in unfair competition and promoting options to certain websites and carriers to the detriment of others. A key issue is the perceived bias stemming from paid prominence or from their affiliation with controlling OTAs, which may distort fair market conditions[105].

Most stakeholders who participated in the targeted survey agreed problem driver 2 sufficiently identifies the causes linked to the problems identified[106], including 18 of 31 transport operators[107]. Surveyed MDMS platforms and RUs with SMP expressed stronger levels of disagreement[108]. 9 out of 11 national authorities and 8 out of 11 'other' stakeholders who participated in the survey also viewed problem driver 2 as significant. However, the consumer organisation EPF stressed that the real issue lies in operator SMP and the restrictions they impose in contractual agreements rather than in commercial bias of independent MDMS platforms. 13 MDMS platforms stated that problem driver 2 was an issue that mainly arises in the context of vertically integrated platforms, where there is a clear incentive for self-preferencing, linking back to problem driver 4[109].

The second aspect of the problem driver involves the difficulties associated with sharing data with public authorities and the display of GHG emissions on MDMS platforms. Many MDMS platforms consider that sharing data with public authorities is sensitive due to perceived competition (when public authorities have set up their own MDMS platforms), and data privacy issues. In addition, MDMS platforms may lack commercial incentives to show GHG emissions, as those might disadvantage higher-emission options of carriers with whom they have good commercial relationships. This represents a missed opportunity for transport planners and infrastructure management authorities to use already existing data to improve the overall performance of the transport system. In interviews, most stakeholders underscored the importance of raising passenger awareness regarding the environmental impact of their travel choices. MDMS platforms mostly highlighted barriers in displaying GHG emissions linked to barriers in obtaining accurate and homogenized data[110]. Counterbalancing this, rail operators have increasingly sought to demonstrate their environmental efficiency, yet CER stressed how this effectiveness is dependent on presenting emissions in a broader multimodal context,

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[104] European Commission: Directorate-General for Mobility and Transport, GA&P and Ricardo, *Support study for the ex-post evaluation of regulation 80/2009 on a code of conduct for computerised reservation systems – Final report*, Publications Office, 2020

[105] Reported in interviews in the context of the Support study for the ex-post evaluation of regulation 80/2009 on a code of conduct for computerised reservation systems by CRS providers, travel agents and a technology company.

[106] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers identified. This paragraph summarises views of stakeholders on the two following questions: to what extent do you agree that this problem driver sufficiently identifies the causes that lead to *uneven access of operators to indispensable MDMS* platforms and to *limited and distorted information and access to tickets for consumers on MDMS, in particular for rail.*

[107] Airlines' associations, including the European Regions Airline Association (ERA), shared concerns about rankings bias, prioritisation and limited transparency on major B2C MDMS platforms, fearing that transport operators paying higher commissions for prominence of their offer in the display may be favoured (reported by 1 MDMS industry association, ECTAA and Snälltåget). One airline criticised models where paid placement influences search results, arguing instead for neutral display and against default settings which can bias user choice. One transport operator specified that the Code of Conduct should be extended or updated to apply its core principles, such as transparency, equal access, and fairness, to all MDMSs. Another large airline reported that CRSs, OTAs and MSEs promote certain operators due to booking fees, incentives, or ranking manipulation. AllRail echoed those concerns in rail, noting discriminatory practices by incumbent RUs' platforms. They cited DB's willingness to sell tickets from other state incumbents (e.g. ÖBB), but not from independent RUs (like European Sleeper or Westbahn). Both WestBahn and AllRail pointed out that DB Navigator's default "fastest connection" setting favours DB's high-speed services and pushes competitors down the rankings (see Annex 11).

[108] 8 of 19 MDMS platforms disagreed that pd2 led to limited and distorted information on mdms platforms and 13 disagreed that it led to uneven access to indispensable MDMS platforms and 4 of 5 RUs with SMP 'fully' disagreed that problem driver 2 leads to both problems.

[109] A major MDMS provider and a travel agency said they have no incentive to favour specific operators, as their models depend on comprehensive, neutral content to serve consumer needs.

[110] Three interviewed MDMS providers highlighted a lack of collaboration among operators in supplying consistent greenhouse gas data, further impeding the effectiveness of any disclosure regime. Two other MDMS highlight the difficulties stemming from diverse calculation methodologies employed by operators, which complicate cross-border travel assessments and undermine the granularity and comparability of available data.

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thereby allowing passengers to weigh options appropriately.

"*Yes, some MDMS platforms might cherry-pick high-margin services and exclude others, and this is a significant issue. We advocate for regulations requiring platforms to display the full range of relevant services without discrimination, ensuring customer choices are based solely on their preferences, not commercial interests*". New entrant RU in an interview

"The SNCF Connect App and vending machines usually only propose high speed TGV services and 'forget' to mention alternative itineraries by intercity trains. One example is the trip from Nantes to Bordeaux: the SNCF systematically proposes a TGV ticket Nantes-Paris-Bordeaux, while there is a better alternative in terms of duration and price with the intercity line Nantes-Bordeaux". European Passenger Federation (EPF)

2.2.3. Problem Driver 3: Imbalanced commercial relationships between indispensable MDMS and transport operators (PD3)

This problem driver links to Problem 1. MDMS platforms with a strategic position or significant presence in a distribution market can impose restrictive commercial terms harming competition and limiting transport operators' ability to access and use indispensable MDMS platforms.

Among MDMS, CRSs are intermediaries connecting airlines with hundreds of thousands of travel agents, TMCs and OTAs worldwide. CRS providers offer financial incentives, proprietary technology, and free training to their subscribers (travel agents), which strongly encourages travel agents to remain loyal to the CRS (single homing). [111] Switching to another CRS would be costly, technically complex, and offer little benefit since all CRSs typically offer the same content due to parity clauses[112]. Switching to new content aggregators would be even more cumbersome as it would imply losing these benefits and incur the costs of switching to a new technical standard. This ecosystem makes CRSs an unavoidable commercial partner for all air carriers, travel agents and TMCs and in practice, airlines are often forced to conclude agreements with every major CRS to tap into their large networks (see Annex 9 for further details).

Between 2019 and 2024, travel agents (including OTAs) utilising CRS platforms accounted for 45% of the total revenues for air trips inside the European Economic Area (EEA), 70% for trips with one leg departing from or arriving in the EEA and 85% for trips outside the EEA, respectively[113]. While the limited integration of new B2B content aggregators, such as AirGateway, Duffel, Hitchhiker, Travelfusion, Verteil with TMC systems currently constrains their reach, they are already connecting more airlines using a new connectivity standard[114], are increasing their market share and are emerging as competitive alternatives to CRSs, which calls to extend to them the retained rules from the CRS Code of Conduct, despite their market share. These NCAs are the new gateways to travel agents and ultimately to consumers, thus creating a strategic market position that may allow them to restrict access to transport operators, in particular smaller transport operators.

In the B2C sector, MDMS platforms with SMP are also essential gateways to travellers. This is most obvious in the rail sector with indispensable RU platforms who have inherited quasi-monopolistic positions in the operational sector with strong brand recognition for distribution. Such practices lead to limited rail booking possibilities: the 2025 T&E study[115] shows that on the EU's 30 busiest aviation routes under 1500 km, the rail alternative is in 20% of cases not bookable at all and in 27% of cases bookable only on one RU platform.

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[111] According to the impact assessment support study, the average financial incentives to travel agents are approximately around 2-3 EUR per flight segment. Lufthansa highlighted that incentives are based on how much travel agents sell or which airline they sell, making it hard for new entrants and reducing competition, limiting innovation and keeping the market controlled by a few players. An airline industry association stated that this creates a dependency of airlines vis-à-vis CRSs.

[112] Contractual provisions requiring airlines to provide the same flight content and prices to a CRS as to other distribution channels, preventing airlines from offering better or differentiated terms elsewhere.

[113] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment, market report.

[114] A4E-intermediaries-study_FINAL-02.pdf on the impact of online intermediaries on consumers and carriers.

[115] Transport & Environment (2026). Bringing the EU's rail ticketing regulation out of the stone age

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During the targeted survey across stakeholders participating, 36 out of 72 agreed that problem driver 3 *leads to uneven access of operators on indispensable MDMS platforms*[116], 23 disagreed. Six were neutral and seven did not know. Most stakeholder groups surveyed agreed with problem driver 3, except MDMS platforms expressing a view, where 13 of 20 disagreed. Among transport operators surveyed, 17 out of 30 agreed and six disagreed. 9 out of 12 national authorities surveyed and 5 out of 10 'other' stakeholders surveyed agreed. MDMS platforms expressing a view tend to reject problem driver 3, expressing disagreement in both the survey and during interviews[117]. Nonetheless a majority of stakeholders from all stakeholder groups agreed that problem driver 3 leads *to limited and distorted information on MDMS platforms*[118]. Indeed, 13 of 19 MDMS agreed, as well as 16 of 31 transport operators, 9 of 11 national authorities and 8 of 11 'others'.

> *"It is important to bear in mind that regional airlines do not benefit from the economies of scale that major carriers enjoy, which makes it increasingly difficult for them to assert themselves in a distribution market dominated by the major OTAs and meta-search engines. Many of these platforms operate as gatekeepers, prioritising certain airlines based on commercial agreements and often to the detriment of smaller carriers. This limits consumer choice and creates an uneven playing field, where regional airlines struggle to gain visibility despite offering connectivity to peripheral, insular and remote regions across Europe".* ERA in the targeted survey

2.2.4. Problem Driver 4: Vertical integration of railway undertakings and rail ticketing platforms hinders wider ticket distribution (PD4)

This problem driver is specific to the rail sector and is the cause of Problem 2, that is the lack of a complete offer of rail tickets on rail platforms and on MDMS in general. Most incumbent RUs have inherited SMP in both the transport service and the ticket distribution market and can leverage their strength in one market to maintain a strong position in the other[119]. In other words, they can weaken the position of competing platforms by denying them access to their transport offer and can harm competitors in the transport market by denying them presence on their ticketing platform. With progressive market opening, new-entrant RUs are expanding their offer in the Union but lack fair access to indispensable RU platforms[120]. For the reasons explained above, the latter do not necessarily behave like independent platforms seeking to provide the broadest range of travel offers but often have an interest in not giving visibility to their direct competitors in the transport services market, thereby forcing new entrants to rely on alternative channels, incur higher entry costs and creating a significant barrier for smaller and new RUs[121]. The refusal of vertically integrated platforms to grant access to new RUs, coupled with the refusal of incumbent RUs to share their full offer with independent platforms, is thus the key driver limiting the development of the ticketing market in rail. The existence of this problem driver is evidenced by the competition cases listed in Annex 11.

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[116] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers identified. However, responses from stakeholders on whether they agree with problem driver 3 as a driver leading to the old problems are still relevant.

[117] Arguing that airlines use their market power to impose unfavourable terms, including low commissions for smaller MDMS and preferential treatment for high-volume platforms, content restrictions or surcharges leading to non-transparent pricing. Stated by 9 MDMS including ECTAA, EU Travel Tech, FTO, SRF, Skyscanner and Welcome Travel Group SpA. In addition, 2 CRSs and one MSE, explained in interviews that some air operators retain lighter fares or impose surcharges, resulting in non-transparent pricing and constrained consumer choice. In contrast, larger air carriers, which participated in the survey, argue that applying surcharges are intended to offset high CRS booking fees where full content agreements are not in place.

[118] Since the survey was carried out, the problem tree has evolved, reformulating the problems and drivers. Responses from stakeholders on whether they agree with problem driver 3 as a driver leading to the old problems are still relevant.

[119] See footnote 69.

[120] During the targeted survey, new rail entrants highlighted that access to indispensable RU platforms is essential for commercial success (statement from European Sleeper and another new entrant).

[121] Statement from All Rail in interviews.

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Limited willingness of indispensable RUs to provide their full offer on fair terms to MDMS platforms

In many cases, incumbent RUs have their own vertically integrated platform (e.g. DB Navigator and SNCF Connect) which already provides a very large customer base and competes with third-party platforms. For RUs with SMP, avoiding direct comparison with emerging competitors, on any platform, also helps them to retain a strong position in the transport market. As a result, incumbent RUs have little interest in providing their full offer to other distribution channels, since they have little to gain in terms of additional customer base and much to lose in strengthening a competing platform. For Public Service Obligation (PSO)[122] operators, who, depending on the contract structure, are less sensitive to market demands, there is also less incentive to have their tickets displayed and sold on third-party MDMS platforms. Finally, it is observed that some RUs running cross-border services (e.g. Paris – Brussels) share with third-party platforms only high-value tickets for those services, since passenger segments that are not reached through their own distribution channels, such as international travellers, are typically expected to generate only marginal additional sales.

This reluctance to share rail ticketing content, or to share it on fair terms, has triggered competition law enforcement at both EU and national level. In June 2023, the German competition authority found that Deutsche Bahn had abused its market power vis-à-vis mobility platforms and ordered it to provide platforms real-time passenger service data, remove restrictive contractual clauses, and ensure fair compensation for third-party ticket sales, subject to further legal proceedings.

The targeted survey confirmed the relevance of the limited willingness of incumbent RUs to provide their full offer on fair terms to MDMS platforms, as a majority of stakeholders surveyed agreed (39 of 74)[123]. By contrast, only 4 of 31 transport operators participating in the survey agreed, mainly new entrant RUs, while all large RUs with significant market presence 'fully' disagreed[124]. Of the respondents in the 'others' category (including consumer organisations, NGOs and independent experts) 10 of 11 agreed[125] as well as 8 of 12 national authorities. Among independent MDMS platforms, 17 of 20 respondents agreed. 13 independent MDMS platforms and their industry associations[126] stressed that dominant or incumbent transport operators often restrict access to full content or impose unfair terms, citing practices such as withholding low fares, applying penalties linked to look-to-book ratios, or offering very low commissions. In addition, five MDMS platforms and associations noted that both dominant RUs and major air carriers actively shape ticket distribution markets to favour direct sales.

A Court of Appeal case found that the latest SNCF agreements with ticket platforms for the 2023-2027 period established a progressively decreasing fee, beginning at 3% from January 2023, then decreasing to 2.9% until the end of 2024, 2.8% for 2025–2026, and 2.7% in 2027 for all SNCF products. This declining commission policy appears designed to favour large sales volumes and may advantage SNCF's own distribution subsidiary (SNCF Connect). Furthermore, distributors individually negotiate variable commissions and may receive discounts on the additional costs to access the SNCF offer portal; the access costs to the SNCF offer portal are likely not borne equally among travel agencies, with some benefiting from volume-based rebates.

In Spain, the European Commission opened a formal investigation on 28 April 2023 assessing whether Renfe abused its dominant position in the Spanish passenger rail transport market. The investigation found that Renfe's revenues from its tickets sold through Renfe's direct channels accounted for 80-90% of its total online sales, while revenues from the indirect online sales through Third-party Ticketing Platforms accounted for

[122] Transport services awarded and operated in accordance with Regulation (EC) No 1370/2007.
[123] Overall, 39 of the 74 respondents 'partially' (29) or 'fully' (10) agreed that problem driver contributes to problem 2.
[124] The SNCF Group stated that it does not see a lack of willingness to share information, attributing the issue instead to technical and financial barriers such as limited interoperability, high development costs and resource constraints.
[125] Consumer organisation EPF also highlighted interoperability as a key obstacle to seamless EU ticketing but recognised the limited willingness of indispensable RUs to provide their full offer on fair terms to MDMS platforms as a key issue, particularly concerning incumbent RUs.
[126] including ECTAA, EU Travel Tech, Federazione Turismo Organizzato (FTO), SRF, ADN Mobilités, Dohop, ECTAA, Skyscanner

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the remaining 10-20%[127]. In addition, the Commission expressed preliminary concerns that Renfe refuses to supply its full Content (e.g. special fares) and real-time data to third-party ticketing platforms and that such refusal to supply may constitute an abuse of Renfe's dominant position prohibited by Article 102 TFEU.

Limited willingness of incumbent RUs to host their competitors' offer on their platforms

Vertical integration also allows RUs to protect their position in the market for rail transport services by refusing competing RUs access to the indispensable ticketing platform they own. They may also choose to include only competitor's services they consider complementary to their own and exclude directly competing service offerings. This is evidenced by the competition cases quoted in Annex 11.

During interviews in the context of the impact assessment support study, independent MDMS providers, new entrant RUs, national authorities, consumer organisations and NGOS[128] largely agree with the limited willingness of indispensable RU platforms to host their competitors' offer. Two industry associations and one NGO[129] confirmed that this situation creates great barriers to entry for competitors on the rail market, and the EPF qualified in interview this behaviour as protectionist and anti-consumer. On the other hand, four of five RUs with SMP, including their industry association, disagreed with this driver, and stressed the importance of keeping their freedom to make their own commercial agreements, to help ensure good service on their platforms and clear responsibilities. Three RUs with SMP, including their industry association[130] denied limited willingness to fairly display competitors' offers and assured that they aim to show all options fairly. Overall, in the targeted survey, 38 of 70 stakeholders agreed that this driver leads to limited and distorted information. Transport operators are the only stakeholder group with a majority of respondents opposing this driver with 17 of 30 disagreeing, although all three new entrant RUs interviewed agreed, expressing concerns regarding their lack of access to indispensable RUs[131].

In 2019, the Swedish competition authority (Konkurrensverket) issued a decision and wrote a letter to the Swedish Ministry of Infrastructure in relation to the dominance in ticketing of Statens Järnvägar (SJ), the Swedish state-owned passenger incumbent RU. SJ was investigated by the Swedish Competition Authority (SCA) over allegations of abusing its market position, specifically by refusing to sell competitors' tickets on its platform. In the investigation, the SCA noted that SJ's strategy was not business neutral.

2.3. How likely is the problem to persist?

2.3.1. Problem 1: Lack of transparency, unfair conditions, and uneven playing field in the online ticketing market

An uneven playing field in the online ticketing market is expected to persist. This is also the view of 42 of 66 stakeholders surveyed, who believed problem 1 to either remain (16) or deteriorate (26) over time. While some Member States have introduced rules to regulate how transport operators integrate into MDMS platforms, these frameworks differ significantly, leading to regulatory fragmentation. As a result, inconsistent or missing national frameworks will continue to limit EU-wide service coverage and make it harder for MDMS providers to enter the market. Without specific safeguards against abuses of market power, particularly in the rail sector, access conditions to indispensable platforms are unlikely to improve. In B2B distribution, CRSs are expected to remain indispensable, especially in air transport, and uneven access is likely to continue. Despite growing use of alternative channels, airlines and travel agents still rely heavily on CRSs. Smaller carriers may continue

[127] Revenues from ticket sales through the Third-party Ticketing Platforms Omio, Trainline, Rail-Europe and El Corte Inglés accounted for 0-5%, 0-5%, 0-5% and 0-5%, respectively, of Renfe's total revenues from online sales.

[128] 9 of 16 independent MDMS platforms and their industry associations, 5 of 5 new entrant RU, 7 of 10 national authorities and 10 of 12 'other' have agreed to this problem driver.

[129] This statement has been outlined by T&E, ADN Mobilités and AllRail during interviews.

[130] CER, Czech Railways and another RU.

[131] During interviews, four new entrant RUs including their industry association (these include WestBahn, Snälltåget and AllRail) expressed concerns over the lack of fair access to indispensable RU platforms.

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to face competitive disadvantages with no clear indication that access conditions will improve for them without further regulatory action[132]. Without further EU level intervention, distortion of competition between regulated and non-regulated B2B channels is likely to persist. This view was shared by 29 of 66 stakeholders in the targeted survey, who either believe the problem to remain (7) or deteriorate (22) over time. There is no strong indication that the gradual shift toward non-CRS ticket distribution, including NCAs, will reverse. Large airline groups are expected to continue promoting direct bookings and non-CRS aggregators, potentially further reducing the share of bookings covered by the CRS Code of Conduct. Nonetheless, for smaller carriers, CRSs will remain an important tool to achieve visibility and compete with the larger carriers. For large airline groups, CRSs will remain important to reach the corporate segments and leisure travellers in markets where the airline's brand is not well known.

2.3.2. Problem 2: Incomplete offer of rail tickets on (rail) platforms

Without EU level action addressing the underlying drivers, the problem is expected to persist. Overall, in the targeted survey, 44 of 67 stakeholders expect Problem 2 to remain (20) or deteriorate (24) over time. Some MDMS platforms may expand their coverage, but only when clear business opportunities exist and if transport operators are willing to cooperate. RUs with SMP dominate operations and distribution and have little incentive to open their platforms to competing transport operators and supply their ticketing offer to competing platforms. This is unlikely to change in the medium term, given the observed pace of market development since the introduction of competition in domestic rail markets[133]. As a result, indispensable RU platforms are unlikely to provide consumers a comprehensive overview of rail journeys. While some long-distance rail services may gradually appear on independent MDMS platforms, this will not address Problem 2 until these platforms reach a significant market share, which is also unlikely in the medium term[134]. Until that happens, new entrants that rely on those platforms will face limited visibility and sales.

3. WHY SHOULD THE EU ACT?

3.1. Legal basis

Title VI (Articles 90-100) of the TFEU establishes the EU's prerogative to make provisions for the Common Transport Policy.

3.2. Subsidiarity: Necessity of EU action

Although some challenges in online ticket distribution and digital access to rail tickets are being addressed nationally or regionally, their cross-border impact on long-distance intra-EU travel requires an EU-wide approach to ensure the smooth operation of the European transport system. Discrepancies between Member States in implementing new rules for online ticket distribution could further fragment the market, raise costs and reduce benefits for MDMS platforms, authorities, operators and transport users. EU-level intervention is

[132] Transport operators are the stakeholder group that appeared the most concerned about the persistence of this problem over time, with 17 of 30 expecting deterioration. Non-incumbent RUs highlighted how the market will continue favouring incumbents and worsen discrimination while two airline industry association highlighted the growing influence of large OTAs and MSEs that will continue promoting certain operators or products based on their own commercial interests. On the contrary, five independent MDMS platforms/ industry associations highlighted that they do not believe this problem to reflect market reality and therefore do not foresee this problem to improve nor deteriorate.

[133] 11 of 16 MDMS platforms that replied to the targeted survey believe that Problem 2 will deteriorate. MDMS industry association ADN Mobilités believes that without legislative intervention, "independent vendors will continue to struggle and ultimately leave the European market" leading to reduced consumer choice, particularly for cross-border and multimodal travel.

[134] This analysis was not shared among incumbent rail and public transport operators, with 6 of 8 surveyed indicating that Problem 2 is not currently a major issue, largely because industry-led initiatives like the CER Ticketing Roadmap and OSDM implementation are already addressing cross-border ticketing and integration. In contrast, two new entrants highlighted their lack of visibility on key ticketing platforms as a key challenge likely to persist.

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needed to prevent divergent strategies with unintended effects.

3.3. Subsidiarity: Added value of EU action

This initiative will enable end users and, in the case of B2B services, subscribers to benefit from a greater choice of tickets, displayed in a fair and transparent way, across transport operators and modes, in particular for rail. This should in turn improve the functioning of the internal market, through a smoother and more coherent booking experience for passengers, and support the EU's objective of economic, social and territorial cohesion. Action at EU level with horizontal rules would support a better functioning of the online ticket distribution market, removing obstacles for operators and platforms, and enhancing the attractiveness of rail which in turn would support EU level objectives of greening the transport sector.

EU level action for B2B ticket distribution would continue to promote a level playing field in the sector. The 2020 ex-post evaluation of the CRS Code of Conduct concluded that the EU level is the right level for such intervention, compared to national and international intervention. This is due to the multi-national nature of both CRS providers and aviation services. If regulated at the national level, CRS providers would need to adapt to a multitude of regulatory regimes with negative impacts on efficiency. In addition, the risk of "rule shopping" would result in fragmentation of the EU single market. At the international level, the International Civil Aviation Organisation (ICAO) has adopted a non-binding CRS Code of Conduct. However, the EU CRS Code of Conduct is binding, making it more effective and adding value compared to the Member States adopting the ICAO code.

4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1. General objective

The first general objective is to enhance the attractiveness of rail, by making more of the existing offers easily available on online ticketing platforms and fostering combinations of those products, also for multi-operator journeys, into single tickets. This is expected to encourage modal shift and thereby contribute to the Green Deal objectives. The second general objective of these initiatives is to support a better functioning of the online ticket distribution market (both B2B and B2C), contributing to the competitiveness and functioning of the transport services market. This would in turn enhance the ability of passengers to compare, access, and book tickets within and across modes, promoting collective transport and promoting multimodal trips. The initiatives also support the two key priorities for the transport system described in the Sustainable and Smart Mobility Strategy: decarbonisation and digitalisation of the EU transport sector. They contribute towards SDG#3 ("Ensure healthy lives and promote wellbeing for all at all ages"), SDG#9 ("Make cities and human settlements inclusive, safe, resilient and sustainable") and SDG#13 ("Climate Action") by promoting a more multimodal and sustainable transport system.

4.2. Specific objectives

The two specific objectives (SOs) and their correspondence with the problem drivers, as well as the general objectives, are presented in Figure 6.

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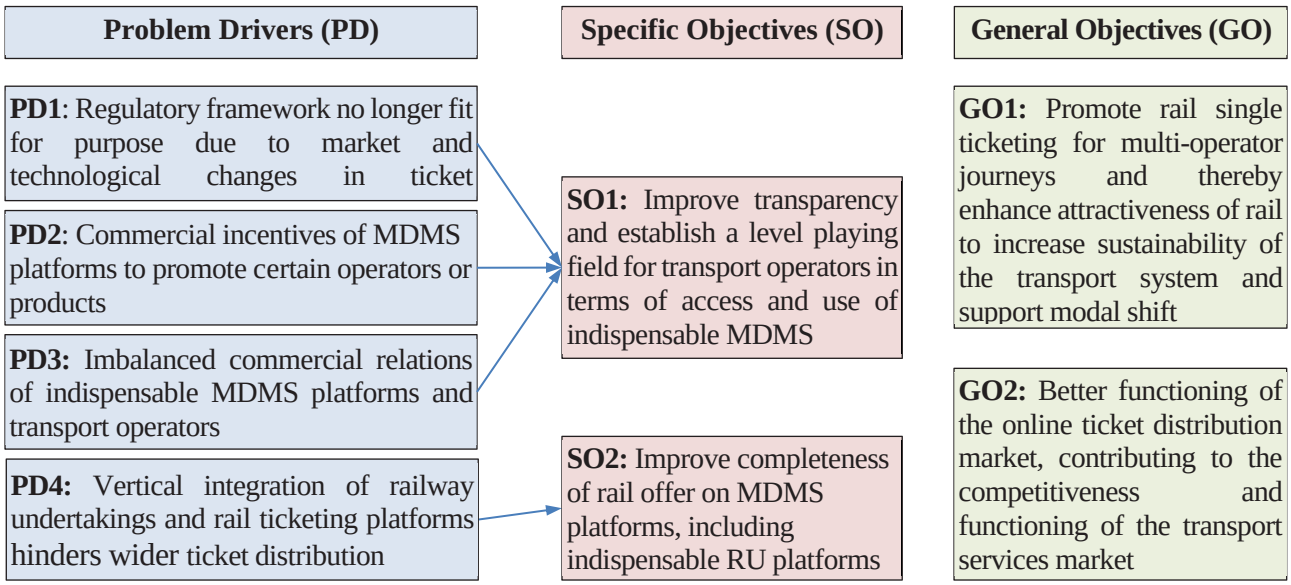
Figure 6: Correspondence between the specific objectives and the problem drivers



SO1: Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS. This specific objective links to problem drivers 1, 2 and 3. This initiative aims to ensure that indispensable MDMS, which serve as key gateways for ticket sale, do not create bias or restrict access to transport operators (in all modes) by imposing unfair conditions. In doing so, it seeks to create a level playing field where transport operators can compete fairly in the national, EU and international markets. Moreover, the objective is for MDMS platforms to offer clear, accurate, and unbiased information on available routes, fares, and ticketing conditions across the EU, enabling end-users to easily find and compare various travel options when planning and booking multimodal or multi-operator journeys. This objective is aligned with the SSMS goals to improve the competitiveness of the EU transport sector and on "making connected and automated multimodal mobility a reality". Success will be defined by a measurable increase in number of agreements between transport operators and MDMS platforms indicating a better functioning of the distribution markets (B2B and B2C). Moreover, success will also be defined as a decrease of the average expenditure per person for interurban mobility, due to an increase in competition resulting from better access and use of indispensable MDMS for transport operators.

SO2: Improve completeness of rail offer on MDMS platforms, including indispensable RU platforms. This specific objective links to problem driver 4. This initiative aims to ensure that rail offers are fully and fairly displayed on MDMS platforms, including on indispensable RU platforms. To achieve that, it aims to remove practices where indispensable RU platforms exclude, deprioritise or apply discriminatory conditions to rail services not operated by the RU that owns them, even when such alternatives may offer better prices, faster connections, or greater convenience for passengers. By doing so, the initiative intends to remove market distortion and enhance fair competition in the railway services market and thereby facilitating seamless access to multi-operator and cross-border rail journey options for end-users. The initiative also aims to ensure RU do not withhold their offer from MDMS platforms to maintain the dominant position of their in-house ticket distribution platform. Success will be defined by a measurable increase in the transport activity by rail due to better visibility and access to these services. This is a meaningful indicator of passengers' ability to find, compare, and purchase rail tickets.

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5. WHAT ARE THE AVAILABLE POLICY OPTIONS?

5.1. What is the baseline from which options are assessed?

In line with the Better Regulation toolbox (Tool #60), the baseline has been designed to include the initiatives of the 'Fit for 55' package[135] and the amendment of the European Climate Law to include a 2040 climate target for the EU[136], of reducing the EU's net greenhouse gas emissions by 90% by 2040 relative to 1990, with a limited contribution towards the 2040 target of high-quality international credits. It also reflects the CO_2 emission performance standards for heavy-duty vehicles[137], the Euro 7 standards[138], the revised TEN-T Regulation[139], as well as the initiatives part of the Greening Freight package[140] and Roadworthiness package[141]. It also reflects the National Energy and Climate Plans prepared by the Member States under the Regulation 2018/1999 on the Governance of the Energy Union and Climate Action and submitted to the Commission during 2024-2025. The baseline scenario assumes no further EU level intervention beyond the ITS Directive[142] and the Delegated Regulation on multimodal travel information services (MMTIS)[143]. The CRS Code of Conduct[144] would continue to apply. More details on the baseline scenario assumptions and results are provided in Annex 4 (section 2). The baseline also incorporates perspectives on potential future developments captured in the 2022 Strategic Foresight Report[145] and during a foresight workshop organised by DG MOVE and JRC on 10 February 2025, analysing the impacts of the megatrends and drivers of change on the EU transport sector[146]. In particular, the projected transport activity draws on the long-term population projections from Eurostat and GDP growth from the *Ageing Report 2024*[147]. An increasingly connected world with high levels of access to digital products and services and in which new services, business models, life and work patterns emerge is the background against which the initiative is assessed.

The total number of passengers in the EU travelling by air, coach (excluding local and suburban public transport), rail and waterborne transport is projected to grow from 12.9 billion in 2019 to 14 billion in 2028, 15.4 billion in 2030 and 17.8 billion in 2050 (19% increase for 2019-2030 and 38.1% increase for 2019-2050), following the recovery from the COVID pandemic. The number of multimodal passengers is projected to increase from 91 million in 2019 to 91.6 million in 2028, reaching 94.4 million in 2030 and 130.8 million in 2050 in the baseline scenario. The air-rail passengers represent over 60% of the total multimodal passengers, air-coach passengers above 30%, while the share of rail-coach passengers is limited to around 1% of the total number of multimodal passengers.

The growing digitalisation of transport services and the emergence of new business models for ticket distribution is expected to lead to an increase in the number of MDMS platforms over time. The number of MDMS platforms is projected to increase from 364 in 2025 to 369 in 2030, and 421 in 2050 in the baseline scenario. The number of agreements between MDMS platforms and transport operators is also expected to increase, from 48,624 in 2025 to 49,321 in 2030, and 56,295 in 2050. The total number of passenger tickets sold via MDMS platforms is projected to increase from 433 million in 2019 to 520 million in 2030 and 854 million by 2050. However, their share in the total number of tickets sold is projected to remain limited in the

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[135] Delivering the European Green Deal - European Commission
[136] COM(2025) 524 final
[137] Regulation (EU) 2024/1610
[138] https://eur-lex.europa.eu/eli/reg/2024/1257/oj/eng
[139] Regulation - EU - 2024/1679 - EN - EUR-Lex
[140] Green Deal: Greening freight for more economic gain with less environmental impact (europa.eu).
[141] Updated rules for safer roads, less air pollution and digital vehicle documents
[142] OJ L, 2023/2661
[143] OJ L, 2024/490
[144] OJ L 35, 4.2.2009, pp. 47–55.
[145] COM(2022) 289 final
[146] https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub_en#explore
[147] DG ECFIN, 2024 Ageing Report. Economic and Budgetary Projections for the EU Member States (2022-2070) - Economy and Finance

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baseline scenario (7.1% in 2030 and 10.1% in 2050). The share of rail tickets sold via independent MDMS platforms was estimated at around 3% of the total rail tickets sold in 2019 at EU level. In the baseline scenario, this is projected to go up to 4.1% in 2030 and 7.3% in 2050. This corresponds to around 65 million rail tickets sold via MDMS platforms in 2019, increasing to 111 million in 2030 and 230 million in 2050 due the increase in the MDMS market share and of the total number of rail tickets sold.

Building on evidence collected from stakeholders, different trends are identified for air tickets sold via B2B platforms and for those sold via B2C platforms. A larger share of tickets will be sold through B2C MDMS, and B2B new content aggregators and the market share of low-cost carriers, which rely less on CRSs, is expected to continue increasing. This is expected to further erode the share of CRSs in ticket distribution, despite the growing number of passengers travelling by air, decreasing from 30.1% in 2019 to 16.8% in 2030 and remaining stable at that level afterwards. This corresponds to 155 million air tickets sold via CRS platforms in 2019, going down to roughly 91 million in 2030 and increasing to 108 million in 2050 due to the growing number of passengers travelling by air.

The share of tickets sold through B2B new content aggregators is projected to increase from 5% in 2019 to 13.4% in 2030 and remaining stable at that level afterwards, partially offsetting the decrease in the share of tickets sold through CRSs. This corresponds to 26 million air tickets sold via non-CRS content aggregators in 2019, going up to 73 million in 2030 and 86 million in 2050. Thus, the total share of ticket sold through B2B platforms (CRSs and new content aggregators) is projected to decrease from 35.1% in 2019 to 31.1% in 2024 and 30.2% in 2030 and remaining stable afterwards. This corresponds to 181 million tickets sold via MDMS platforms in 2019, 164 million in 2030 and 194 million in 2050.

On the other hand, the share of air tickets sold via B2C platforms is projected to slightly increase from 18% in 2019 to 18.9% in 2030 of the total air tickets sold and remain stable over time. The number of air tickets sold via B2C platforms is projected to increase from around 93 million in 2019, to 103 million in 2030 and 122 million by 2050. The share of coach tickets sold via MDMS platforms was 2.5% in 2019 at EU level. The share is projected to go up to 3.5% in 2030 and 6.6% in 2050 indicating a somewhat slower ramp up compared to that of rail transport. The number of coach tickets sold via MDMS platforms in 2019 was estimated at around 84 million, increasing to 126 million in 2030 and 273 million in 2050 due the increase in the MDMS market share and of the total number of coach tickets sold. The share of waterborne tickets sold via MDMS platforms was about 2.5% in 2019, with a projected increase to 3.4% by 2030 and 6.7% in 2050 at EU level. This corresponds to around 11 million tickets sold via MDMS platforms in 2019, increasing to 16 million in 2030 and 35 million in 2050.

Road congestion costs in the baseline scenario would increase by about 18% by 2030 and 34% by 2050, relative to 2015. On the inter-urban network this would be the result of growing transport activity along specific corridors, in particular where these corridors cross urban areas with heavy local traffic. On the other hand, driven by policy in place and the assumed implementation of the Roadworthiness package, the number of fatalities is expected to decrease by 25% by 2030, relative to 2015 (36% decrease by 2050) and the number of injuries by 23% by 2030 (32% reduction for 2015-2050). CO_2 emissions from passenger transport are projected to be 27% lower by 2030 compared to 2015, and 96% lower by 2050. The baseline scenario shows that the emission reductions from the passenger transport sector would contribute towards the ambition of at least 55% emission reductions by 2030 and climate neutrality by 2050, while relying to a significant extent on technological solutions (i.e., the uptake of low- and zero-emission vehicles and of renewable and low carbon fuels) and carbon pricing. NOx emissions are projected to go down by 56% between 2015 and 2030 (94% by 2050), mainly driven by the electrification of the road transport. The decline in particulate matter (PM2.5) would be slightly lower by 2030 at 34% relative to 2015 (89% by 2050).

5.2. Description of the policy measures and policy options

A comprehensive list of policy measures was established after extensive consultations with stakeholders, expert meetings, independent research and the Commission's own analysis. This list was screened based on

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the likely effectiveness, efficiency and proportionality of the proposed measures in relation to the objectives, as well as their legal and technical feasibility.

5.2.1. Discarded policy measures

Several policy measures that were considered during the IA process were discarded. More details on the discarded policy measures and the reasons for discarding them are set out in Annex 7.

5.2.2. Retained policy measures

To understand the scope of the most stringent policy measures, the identification of indispensable MDMS platforms and indispensable RUs is described below.

Indispensable RUs are RUs that operate: 1) PSO services, 2) cross-border services, or 3) more than 50% of total rail services in a Member State, measured in annual passenger-kilometres, including both domestic and cross-border services. In Commission's practice on assessment of significant market power for the purposes of *ex ante* regulation[148], and by analogy with the case law concerning dominance[149], it has been considered that a very large market share held by an undertaking for some time – more than 50% – is in itself, save in exceptional circumstances, evidence of the existence of a dominant position. The higher the market share and the longer the period over which it is held, the more likely it is that it constitutes an important preliminary indication of significant market presence (SMP)[150].

> *Indispensable RU platforms* are the main sales channel for most rail customers and account for a large share of rail ticket distribution. A RU platform is considered indispensable if it is owned by a RU which (i) operates more than 50% of total rail services in a Member State, as a structural link exists between the RU's strong positions in passenger rail transport and its ability to leverage this position into the downstream market for online rail ticket distribution, making the platform an essential gateway for consumers and other RUs and (ii) it already distributes tickets of at least one other RU (as explained in 2.1.2 and illustrated in All incumbent RUs (except in PL, see ***Error! Not a valid bookmark self-reference.***) have Significant Market Presence (SMP) in the national transport service market, i.e. a market share above 50% in terms of passenger kilometres. All of them also have one or more digital ticket sales channels, 19 of which are MDMS platforms as they also sell tickets of other RUs or operators in other modes, while only 6 sell their own tickets and are greyed out in the chart. The platforms owned by incumbent RUs have a very large customer base and are the standard reference for rail ticket customers. National competition authorities and economic studies consistently show that the vast majority of consumer searches and online ticket sales are concentrated on the RUs with SMP's proprietary digital channels (websites and mobile applications), while third-party ticketing platforms account for only a limited share of transactions. For example, the 2021 report of the Monopolkommission shows that among major online platforms for long-distance rail tickets in Germany, about 90% of website visits go to Bahn.de, indicating DB's dominant position in online distribution markets. This renders the incumbent platforms an indispensable distribution channel for any rail operator offering transport services in the respective national market. This is particularly the case of platforms that sell tickets of multiple RUs, as customers may not realise that their offer is incomplete and are thus less likely to make alternative searches. On the other hand, when it is clear for customers that they must look elsewhere to access tickets of competing RUs, they are more likely to use competitors' or independent platforms. Accordingly, in the rest of this

[148] Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services, C(2018) 2374 final.
[149] Judgment of 13 February 1979, *Hoffmann-La Roche v Commission*, Case 85/76, EU:C:1979:36, paragraph 41; Judgment of 3 July 1991, *Akzo v Commission*, C-62/86, EU:C:1991:286, paragraph 60.
[150] C/2018/2374

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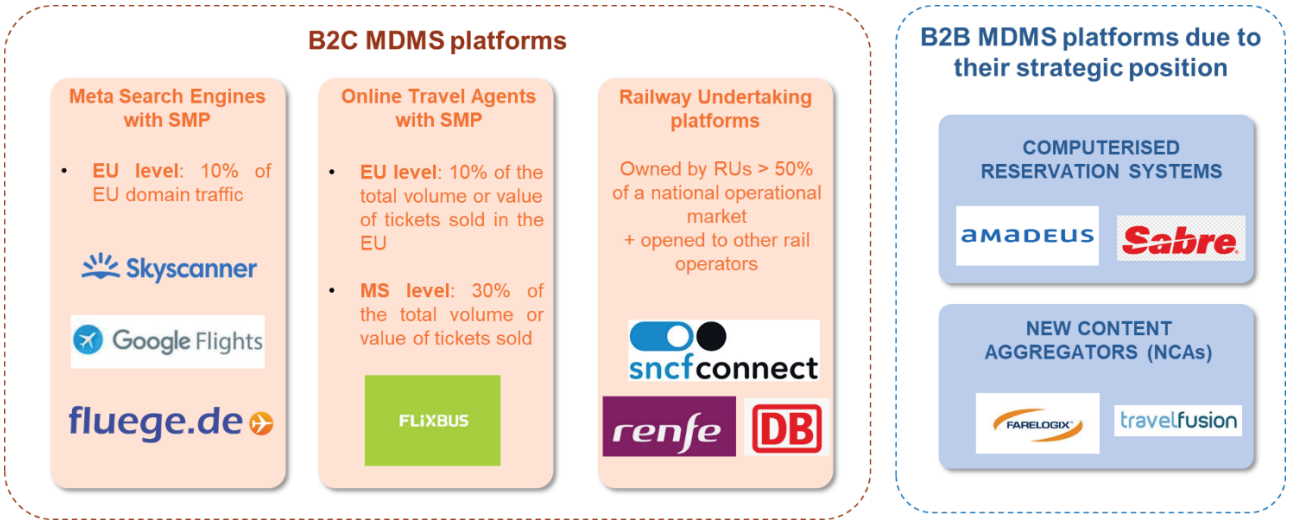
document, the ticketing platforms owned by incumbent RUs (the 19 in blue in Figure 4) are referred to as 'indispensable RU platforms', but not when they do not sell third party tickets (the 6 in grey in Figure 4).

Figure 4). Indispensable RU platforms are thus a sub-category of indispensable MDMS platforms. Given their vertical integration with a RU with SMP, their identification can be simplified, reducing administrative burden on RUs. As they are also subject to specific obligations, they are presented as a separate category.

Figure 7: Overview of indispensable MDMS platforms



Indispensable MDMS platforms include (i) B2C MDMS with Significant Market Presence (SMP) and (ii) B2B MDMS, including CRSs and NCAs, which are all essential gateways to (travel agents and ultimately to) consumers. In the B2C distribution market, an MDMS platform is considered as having SMP if it controls at least 10% of the EU market or 30% of a national market, based on either the total value or volume of tickets sold in any one transport mode. For MSE, they are considered as having SMP if they have a share of 10% or more of EU traffic. In selecting the thresholds, an assessment identified which platforms might be affected by different policy options. The EU-level threshold measures a platform's influence across various Member States, reflecting national market diversity. This is complemented by national thresholds which reflects significant influence within a single Member State, indicating a capacity to impact consumer choice in that country. Finally, the application of thresholds based on the total value and number of tickets sold enables the identification of platforms with varying market dynamics, capturing both platforms selling large volumes of tickets and generating substantial revenues. Overall, this method ensures a balanced assessment of platforms' influence, aligning with regulatory standards and facilitating targeted policy measures across diverse transport modes. It also allows for an objective and easy measurement of indispensability.

A more detailed description of the policy measures in Table 1 is provided in Annex 8. SMEs are not subject to any of the policy measures listed below.

Table 1: Retained policy measures

PM*	PD**	POLICY MEASURE
PM1	PD2	Obligation for **all MDMS platforms** to apply neutral display obligations and **for transport operators (in all modes)** to ensure that the data they submit are accurate
PM2	PD2	Obligation for **all MDMS platforms** to load and process data of operators with equal care and timeliness
PM3	PD3	Obligation for **all MDMS platforms** to share marketing and booking data in a fair way, when requested by transport operators and authorities

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PM*	PD**	POLICY MEASURE
PM4	PD1	Obligation for **all B2B MDMS platforms to treat subscribers fairly and** clearly identify in their display banned airlines. Obligation for third countries B2B MDMS to ensure equal treatment of EU air carriers
PM5	PD1	Remove provisions on data protection from CRS Code of Conduct
PM6	PD3 PD4	Obligation for **Member States** to appoint a national authority to settle disputes between parties, and establish an EU enforcement network for coordination of enforcement and implementation work, ensuring consistency throughout the EU.
PM7	PD2	Obligation for **all B2C MDMS platforms** to share data for mobility management
PM8	PD2	Obligation for **all B2B and B2C MDMS platforms** to display information on GHG or CO2 emissions of trips (when these data are provided by the operators in line with and Count Emissions EU and Flight Emission Label)
PM9	PD3 PD4	Thresholds to identify B2C MDMS platforms and RUs with SMP: - **for RUs with SMP**: within one calendar year, 50% or more of the total passenger rail services operated in a Member State (including domestic and EU cross-border services to/from that Member State), expressed in yearly passenger kilometres - **for B2C MDMS with SMP**: for OTAs and TMCs evaluated at EU and national level, via two proxies: total number of ticket sold and/or the total value of tickets; for MSE evaluated at EU level based on traffic
PM10	PD3 PD4	**B2C MDMS platforms with SMP:** must notify national authorities or the EC about their market presence. National authorities designate B2C MDMS platform, RUs with SMP and indispensable RU platforms at national level, while the EC designates B2C MDMS platforms with SMP at EU level. The EC publishes a list of MDMS platforms (including indispensable RU platforms) and RUs with SMP at both national and EU level.
PM11	PD3	**B2C MDMS platforms with SMP, indispensable RU platforms and B2B MDMS**: must respect principles on distribution fees and cannot impose highly restrictive clauses (exclusivity clauses, unfair and unjustified conditions, marketing clauses and other technical restrictions) when entering into commercial agreements with transport operators
PM12	PD4	**Indispensable RUs (with SMP and operating PSO and cross- border services)**: must respect principles on distribution fees without imposing restrictive clauses (exclusivity clauses, marketing clauses and other technical restrictions) when entering into commercial agreements with MDMS platforms
PM13	PD4	**Indispensable RUs** (**with SMP and operating PSO and cross- border services**): must enter into commercial agreements with requesting MDMS platforms to enable the re-linking, resale and/or distribution of their tickets via those platforms for the specified services (‘sharing obligation’)
PM14	PD4	**Indispensable RU platforms:** must enter into commercial agreements with requesting RUs (operating within the same geographical area in which the RU owning the indispensable RU platform has SMP) to enable the distribution of their tickets (‘hosting obligation’)
PM15	PD4	**Indispensable RU platforms:** must unbundle its distribution system from the systems of its parent operator

*Note: * PM stands for the number of the policy measure; ** PD stands for the problem driver that the policy measure addresses.*

5.2.3. Description of the policy options

The 15 **policy measures were grouped into four policy options**. PM1 to PM12 are common to all options and focus on requirements ensuring fair treatment of information and data on MDMS platforms, alongside rules for commercial agreements between indispensable MDMS and transport operators. The more stringent rules, notably the obligation to share, host or unbundle drive the ambition level of the policy options and set them apart (see Table 2).

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Table 2: Overview of the policy options and their links with the specific objectives

	SO	PO1	PO2	PO3	PO4
Update and extension of the CRS Code of Conduct's rules (PM1 to PM5) Promotion of sustainable modes of transport (PM7-PM8)	SO1	✓	✓	✓	✓
Enforcement (PM6) Identification and designation of indispensable MDMS & RU (PM9-PM10) Commercial agreement rules (PM11-PM12)	SO1/SO2	✓	✓	✓	✓
Obligation to share (PM13)	SO2		✓	✓	✓
Obligation to host (PM14)	SO2			✓	
Obligation to unbundle (PM15)	SO1/SO2				✓

Policy option 1 – Facilitating integration

PO1 is a minimalistic approach that targets both specific objectives. A first set of policy measures that are common to all four policy options (PM1 to PM8), includes measures that establish minimal requirements ensuring fair treatment of information and data on MDMS platforms. It also sets out key principles framing all commercial agreements between *indispensable MDMS platforms* and transport operators, as well as between *indispensable RUs* and MDMS platforms.

This option fully addresses SO1, by establishing a level playing field for MDMS and transport operators through the extension of the CRS Code of Conduct's rules to all MDMS providers (PM1, PM2, PM3, PM4 and PM5). With all MDMS platforms (from both B2B and B2C sectors) subject to these rules, the initiative ensures that transport operators can compete fairly on all platforms and protects their data from being misused. PM9 sets thresholds to identify MDMS platforms and RUs with SMP, which would be designated by national enforcement bodies or the European Commission (EC) depending on the market in which they have SMP (PM10). These are needed for PM11, which sets rules that protects transport operators in their commercial agreements with indispensable MDMS platforms, including provisions that (1) safeguard commercially sensitive data of operators, (2) prohibit the inclusion of unjustified or unnecessary contract conditions that could prevent the conclusion of the agreement, and (3) ensure remuneration of platforms is based on objective and transparent criteria (such as quality and level of services, annual volume of transport products distributed, look-to-book ratios, etc). These criteria should be transparently shared with the operator or the National Enforcement Body (NEB) upon request. Member States would be required to appoint a national authority to settle disputes that could arise between parties (PM6) and an EU enforcement network of such authorities would convene each year to ensure consistent enforcement across the EU. Specifically, this EU enforcement network will allow NEBs to exchange information on their (i) monitoring, enforcement and implementation work, (ii) decision-making principles, and (iii) administrative practices. The Commission will participate in discussions, coordinate and support cooperation on matters of common interest and exchange of best practice. PM8 would oblige MDMS platforms to display information on greenhouse gas emissions, when that information is shared by the transport operator, and PM7 obliges B2C MDMS platforms to share data for mobility management with public authorities.

To address SO2, PM12 protects MDMS providers in their commercial agreements with indispensable RU by setting rules on distribution fees and prohibiting restrictive clauses in contracts (exclusivity clauses, unfair and unjustified conditions, marketing clauses and other technical restrictions) allowing to address the imbalances in bargaining power when negotiating commercial agreements.

Feedback was received on stakeholder's positions on all policy measures and views on PMs common to all policy options (PM1 to PM12) are only presented under PO1. In the targeted survey, stakeholders had mixed views, expecting measures linked to neutral display and fair processing of data as mostly positive / neutral. MDMS platforms surveyed appeared to be the most sceptical group, while most national authorities and the 'other' category participating in the survey find those measures effective. Transport operators surveyed did not provide homogenous answers for those PMs. Stakeholders participating in the targeted survey commented

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mostly on the requirements regarding neutral display (PM1)[151] and on the requirements on GHG emissions (PM8)[152]. These measures were strongly supported by national authorities and the 'other' category surveyed, perceived as effective in promoting fair competition, enhancing consumer choice, and improving transparency within the transport sector while sometimes advocating for more stringent rules (the NGO T&E called for mandatory display of GHG emissions on platforms, even when data is not shared by operators). RUs and MDMS platforms active in rail, taking part in the survey and interviews, also supported the introduction of GHG requirements[153], provided that the data are easily comparable[154]. Three MDMS platforms added that, to be effective, the data must be shared by operators consistently, which remains a challenge. Three national authorities also believed consumers might show limited interest in GHG emissions when making booking decision.

In addition, participants of the OPC for MDMS were asked how important different measures are in their opinion to ensure fair access for all operators to relevant multimodal digital mobility services platforms. The outcome is far more favourable than the stakeholder survey results, especially regarding neutral display with 149 out of 169 respondents indicating that this policy measure is important to ensure fair access for operators. Only 13 respondents found it not important. Moreover, 70 out of 80 respondents from industry indicated it to be important versus only 7 who found it not important. During interviews, the update of the Code of Conduct neutral display rules has been positively perceived by a majority of airlines interviewed, Westbahn and EPF, who viewed it as an effective way to ensure a level playing field and avoid the distortion of information on platforms[155]. By contrast, one airline and one OTA raised in interviews concerns about the relevance and enforceability for B2C platforms, and that imposing neutral display requirements could paradoxically reduce competition by homogenising offerings and eroding the ability of such platforms to differentiate. The prospect of establishing a neutral body to oversee aspects of the MDMS ecosystem (the national body to be appointed under PM6) was supported by stakeholders surveyed, with 36 of 71 finding PM6 effective[156] in the targeted survey. Transport operators appeared to be the most supportive group, with 19 of 29 finding it effective and none finding it ineffective. During interviews, some stakeholders from all stakeholder groups supported the creation of such an entity emphasizing its potential to ensure market fairness, resolve disputes efficiently, and foster cross-border consistency in enforcement and governance[157]. More critically, some indispensable

[151] 8 of 20 MDMS platforms saw downsides to PM1, questioning the relevance and enforceability of neutral display requirements and emphasizing that not leaving the choice of selection criteria with the user could result in negative effects on platforms' business models (mentioned in interviews by Skyscanner and the industry association ADN Mobilités). 11 of 30 transport operators expected it to be very or somewhat effective while 2 of 30 stakeholders expected it to be very or somewhat ineffective. Moreover, 17 of 30 stakeholders were neutral (14) or did not know (3). 1 out of 3 of new entrant rail operators considered it somewhat effective while 2 out of 3 replied don't know or did not answer.

[152] Nine of 20 found PM8 very ineffective, and four respondents, including EU Travel Tech and Skyscanner, supported PM8 while emphasizing the need for standardised methods of GHG data reporting and calculation to ensure consistency with the existing EU framework, thereby simplifying compliance and reducing confusion for consumers. 11 of 29 transport operators expected it to be very or somewhat effective (7 very effective, 4 somewhat effective). Furthermore, 10 of 29 transport operators expected it to be very ineffective.

[153] Explicitly supported in interviews by CER, SNCF, rail entrant Snalltaget, the MDMS industry association ADN Mobilités and one other MDMS platform.

[154] Mentioned in interviews by two MDMS providers, two RUs - one incumbent - and an airline.

[155] During interviews, one airline considered it as "the best approach to avoid situations of distorted information" while another airline noted that the extension of CRS CoC neutral display obligation and fair treatment of transport operators to dominant B2C MDMS is "mandatory" for the fair treatment of offers. Another airline criticised business models as applied by Edreams, and their display policies.

[156] These are views on PM6 in tackling limited and distorted information on platforms. In relation to tackling uneven access of operators' platforms, 36 of 71 found it effective, 14 ineffective and 21 were neutral/did not know. As in relation to the former problem, transport operators appeared the most supportive of this measure.

[157] Statement supported in interview by two new content aggregators, two airlines, two rail new entrant – WestBahn and Snälltåget, a national authority, together with two from the 'others' category, including BEUC.

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RUs and MDMS platforms questioned the effectiveness or practical utility of such an institution[158].

Finally, 31 out of 69 stakeholders surveyed expected PM11 to be effective and 36 expected PM12 have a neutral effect. Overall, MDMS platforms surveyed appeared more sceptical towards PM11[159] whereas transport operators expressing a view questioned rather PM12[160]. Indeed, MDMS platforms participating in the survey tend to question the effectiveness of imposing principles on distribution fees and rules forbidding highly restrictive clauses on them, as they argue they would have no incentive to block access to their platform. However, they stressed their main concerns is big operators' unwillingness to share information with them on fair terms[161]. On PM11, 15 of 27 of transport operators surveyed expected the measure to be effective in addressing Problem 1, while 2 of 29 expected PM12 to be ineffective. A majority (21 of 29) were neutral/did not know the effect of PM12. In the survey several RUs with SMP[162] including CER members expressed concerns over the introduction of enhanced FRAND principles, especially regarding the regulation of distribution fees. They emphasize that imposing levels of fees defined by regulation could distort the true value of services rendered and overlook the internal costs borne by providers. While these views are acknowledged, it is important to note that PM11 and PM12 do not impose directly levels of fees but rather ensure that the level of fees agreed upon in a commercial agreement are justified and transparent. Eight MDMS platforms/ MDMS industry association and 14 transport operators participated in 2022 to the Multimodal Passenger Mobility Forum (MPMF) to support the Commission in its preparatory work for this initiative. In the MPMF final report, the need to "feature FRAND as a core standard [163]" for the contractual provisions between MDMS platforms and transport operators is outlined. In particular, the use of FRAND is mentioned as a principle that could "guide points to calculate compensation (…), access to data, (…) look-to-book ratio and marketing restrictions; transparency on terms and conditions[164]."

Policy option 2 (PO2) – empowering requesting MDMS platforms to offer single tickets in rail

PO2 addresses SO1 in the same manner as PO1 but further addresses SO2 by mandating that indispensable RUs enter into commercial agreements with requesting ticketing platforms to enable the sale of all their tickets, provided that those platforms fulfil minimum requirements (PM13). The scope of this 'sharing obligation' is all rail tickets and fares for: i) rail services provided by operators with SMP in the Member State in which they hold significant market presence, ii) rail services provided under public service contract (PSO services); and iii) cross-border rail services. The commercial agreements between indispensable RUs and MDMS platforms would have to follow fair and reasonable conditions, as laid down in PM12. In particular, indispensable RUs cannot prevent their tickets from being combined with tickets from other operators, allowing platforms to sell them as single tickets. Under PO2, MDMS platforms (in particular independent ones) would be capable of expanding their offers and ultimately provide a complete offer.

In the targeted survey, the sharing obligation (PM13) introduced in PO2 gathered support from national authorities and the stakeholders surveyed in 'other' category[165], moderate support from MDMS platforms[166],

[158] An MDMS provider recognised the theoretical benefit of a neutral body but noted that disputes rarely escalate to a level that would need its involvement, implying that practical utility may be limited. More critically, CER and the Czech authority questioned both the need and effectiveness of such an institution. CER and the Czech authority, for example, argued that existing judicial and administrative bodies are sufficient for handling market disputes. The Czech authority argued that a neutral body would add little value, given the competitiveness of the national ticketing market and the availability of redress through existing legal mechanisms.
[159] 13 out of 20 MDMS platforms found PM11 ineffective.
[160] Only 2 of 29 transport operators found PM13 effective, 6 ineffective and 21 were neutral/did not know.
[161] During interviews, six MDMS B2C platforms and a trade association argued that the main issue is the unwillingness from large operators to share their offer on fair terms.
[162] Expressed by the industry association CER, DB, SNCF and UITP.
[163] MPMF final report (2022), p.32
[164] Ibid p.26
[165] 7 of 11 national authorities and 6 of 10 stakeholders under the category 'other' found it effective.
[166] 7 of 20 found it effective, 7 were neutral, 4 found it ineffective and 2 did not know.

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and very limited support from transport operators surveyed[167]. Especially, incumbent RUs participating in the targeted survey argued that mutual commercial interest should guide collaboration in distribution rather than mandated access[168]. DB and SJ AB went further, arguing that this measure might create administrative burden and potentially increase ticket prices. On the other hand, ALL Rail argued that a fair market requires both sides to be regulated: RUs must share their data, and ticket vendors must sell all RUs' tickets. Air France-KLM and Finnair stressed that this measure should not be applied to the air sector, as the air market is already competitive and well-functioning. Finally, 2 MDMS platforms (Skyscanner and EUTT) outlined the need to extend the sharing obligation to air carriers as well.

Policy option 3 (PO3) – empowering requesting RU to be offered on indispensable RU platforms

PO3 addresses SO1 in the same manner as PO1 and PO2, but it further addresses SO2 by mandating that indispensable RU platforms shall enter into agreements with requesting RUs in order to distribute tickets, offered within the same geographical area in which the indispensable RU platform is active, including cross-border services to and from the Member State (PM14). They must apply non-discriminatory and reasonable contract conditions as described in PM11. PO3 would thus foster the completeness of the offer on both independent MDMS and indispensable RU platforms, providing the traveller ample choice on all platforms, including the ones he uses most. This is expected to address SO2 quicker than other policy options. This obligation would not apply to incumbents' sales channels that only sell tickets of services that they operate directly, as these sales channels do not raise the same user expectations (see section 2.1.2). Requiring such operators to make the necessary IT investments and enter the MDMS market would be unnecessary and disproportionate.

The additional obligation for indispensable RU platforms to host requesting competitors (PM14), as added in PO3, is not consensual amongst stakeholders. In interviews, 12 of 15 stakeholders who provided their views on PM14 viewed that a more cooperative, commercially driven approach is preferable to outright regulatory imposition[169]. Two incumbents and their industry association, alongside an MDMS express fear that PM14 would increase market concentration[170], and the MDMS industry association ADN Mobilités stated in an interview that full integration of competitors on those platforms would "take years". On the contrary, the new entrant industry association All Rail views PM14 as a "game changer" to improve effectiveness and enhance the visibility of new entrant RUs in the EU and potentially "doubling the modal shift of rail for long-distance travels". Air France-KLM and Finnair stressed that this measure should not be applied to the air sector, as the air market is already competitive and well-functioning. In the targeted survey, stakeholders also expressed diverging views. In total, 22 out of 68 stakeholders surveyed expected it to be very (10) or somewhat effective (12). Furthermore, 20 stakeholders surveyed expected it to be very ineffective (19) or somewhat ineffective (1). Finally, 26 stakeholders surveyed expressed a neutral view (17) or did not know (9). 15 out of 27 transport operators surveyed believed this obligation would be very ineffective while the MDMS platforms surveyed thought the effect of PM14 would be either neutral (7 out of 20) or 'very' ineffective (5 out of 20, of which 2 vertically integrated MDMS). By contrast, 6 out of 11 national authorities surveyed and 6 out of 10 'other' stakeholders surveyed found PM14 to be effective, therefore counterbalancing the position of vertically integrated platforms and operators. OPC participants were asked whether they support an obligation for the integration, on the basis of reasonable terms, of operators willing to be part of an MDMS platform. This corresponds to PM14, but the OPC question was not restricted to indispensable rail platforms and referred to all types of MDMS platforms. In the OPC, 152 out of 168 respondents who expressed an opinion found it important while 6 did not. 77 out of 80 stakeholders from industry expressing a view found it important versus

[167] 8 of 30 found it ineffective, two found it effective, 2 were neutral and 17 did not know.
[168] Mentioned in interviews by the industry association for RUs CER, SJ AB, DB, and UITP.
[169] This included 3 MDMS providers/associations (including 1 new content aggregator, 1CRS and ADN Mobilités), 3 RUs (1 incumbents and their industry association CER, and 1 new entrant), 2 national authorities, 2 airlines/airline association, ECTAA and UITP.
[170] Stated by CER, 2 incumbents and ECTAA during interviews.

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2 who did not.

Policy option 4 (PO4) – unbundling indispensable RU operators and platforms

PO4 addresses SO1 in the same way as PO2 but further addresses SO2 by mandating indispensable RU platforms to unbundle their distribution services from the parent company's transport activities (i.e. divesting) (PM15). Removing the vertical integration of the service and ticketing branches would also remove their mutual incentive to protect the strong position of incumbent RUs in the upstream passenger rail market.

Stakeholders participating in the targeted survey appeared to be divided regarding the benefits of unbundling, as 22 out of 69 expected it to be effective[171], 20 ineffective[172] and 26 were neutral/did not know[173]. Half of transport operators surveyed (15 out of 28) found the measure to be very ineffective, with the notable exception of new entrant RUs. RUs with SMP responding (DB and CER) claimed that unbundling is disruptive and would not bring added value to consumers and would harm functioning of rail services as ticket revenues directly fund them. On the contrary, new entrant RUs surveyed expressed support for this PM, seen as an effective way to ensure that passengers can see all rail options for their journeys, citing positive examples of countries were unbundling in rail is already mandatory. A new entrant also outlined that while unbundling is in theory a very effective measure, it might be complex to implement. Independent MDMS platforms expressed a more nuanced view, 6 out of 20 finding the measure effective, 10 to have a neutral effect/ or did not know[174] and 4 ineffective[175].

6. WHAT ARE THE IMPACTS OF THE POLICY OPTIONS?

This section summarises the main expected economic, social and environmental impacts of each policy option. The assessment of impacts draws on multiple data sources, including the targeted stakeholders' consultation and open public consultation, findings from desk research, a **2024 Eurobarometer survey on ticketing**[176]**,** and the impact assessment support study (including an **in-depth analysis of 100 origin-destination (OD) routes**)[177]. It builds on the ASTRA model and a Cost Benefit Analysis (CBA) module that is used to calculate the costs and/or benefits of policy measures, aggregate them into options, and compare the costs and benefits of the policy options. The ASTRA model is a well-established model that has been used for numerous impact assessments in the energy, transport and climate action fields for the past 15 years[178]. The ASTRA model is used to estimate the impacts of the policy options on transport activity, CO_2 emissions, air pollutant emissions and other external costs of transport, as well as the impacts on user costs[179].

The policy measures included in all policy options are expected to improve both the completeness and ability to book alternative transport offerings displayed on MDMS platforms. In all policy options, platforms will be required to present available transport options in a fair, transparent, and unbiased manner and incorporate information on GHG emissions for trips where such data are available. Moreover, the range of transport services displayed on MDMS platforms is expected to expand as transport operators will benefit from fairer contractual conditions when negotiating with indispensable MDMS platforms. The availability of rail offers is expected to expand more significantly in PO2, PO3 and PO4, as indispensable RUs that previously shared

[171] 10 'very' and 12 'somewhat effective'.
[172] 19 'very' and 1 'somewhat' ineffective'.
[173] 17 neutral and 9 did not know.
[174] 7 neutral and 3 did not know.
[175] 2 'very' and 2 'somewhat ineffective'.
[176] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024
[177] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment
[178] For example, Register of Commission Documents - SWD(2023)351; Register of Commission Documents - SWD(2023)443; Register of Commission Documents - SWD(2021)472; Register of Commission Documents - SWD(2021)474
[179] To monetise the external costs savings, the unit values from the 2019 Handbook on the external costs of transport have been used (Handbook on the external costs of transport - Publications Office of the EU).

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their services almost exclusively through their platforms will now be visible on third-party platforms. The visibility and comparability of rail services are expected to improve further with PO3, as additional RUs will acquire a better access to indispensable RUs platforms, considered as key intermediaries for RUs in expanding their consumer reach. Similar to PO3, PO4 will enhance citizens ability to find and book rail offers, as indispensable RUs platforms' newly acquired independence will allow new entrant RUs to get better access to key rail platforms. As a result, the policy options are expected to enhance the completeness and the ability to book alternative transport offerings displayed on MDMS platforms to varying degrees.

The completeness and the ability to book service offerings is expected in turn to have an impact on modal shift and journey time. In the first step, the maximum potential modal shift and maximum reduction in the journey time that can be achieved due to the completeness and the ability to book service offerings has been determined based on the 2024 Eurobarometer survey on ticketing and the in-depth analysis of 100 origin-destination (OD) routes and have been discussed in an expert workshop and an additional stakeholders' workshop organised in the context of the impact assessment support study. In particular, the maximum potential modal shift was derived from answers to Q11 of the Eurobarometer survey, capturing stated preferences on change in behaviour among a very large and representative sample of citizens who currently never or rarely combine different operators/ modes of transport due to their inability to purchase all tickets in one place. Since the Eurobarometer was conducted on a statistically representative sample, its results are valid for the whole EU population and therefore is a relatively robust basis. Assumptions based on stated preferences represent a scientifically sound method to capture expected modal shift, especially when no real-life evidence is available based on historical data. The maximum potential modal shift is considered to be a conservative estimate, as it does not capture stated preferences on change in behaviour among individuals who already book such journeys but might do so more frequently in the future, due to the improvement of the ticketing system. In addition, the modal shift linked to the introduction of full passenger rights for rail single tickets is not accounted for in this IA. As a result, the actual impact on modal shift of the proposed measure may outperform what is currently estimated.

In the second step, a suite of ad-hoc tools have been developed in the context of the impact assessment support study, as explained in Annex 4 (section 1.3), to translate the degree to which the policy options are expected to contribute towards the maximum potential modal shift and maximum potential reduction in travel time due to the enhanced completeness and the ability to book alternative transport offerings displayed on MDMS platforms. Both these inputs are further feed into the ASTRA model to derive the overall impacts of the policy options on transport activity, CO_2 emissions, air pollutant emissions and other external costs of transport, as well as the impacts on user costs. The stakeholders' workshop was used to validate the inputs used for the policy options in the ASTRA model. Detailed explanations on all the steps of the approach used are provided in Annex 4 (section 1.3).

It should however be acknowledged that during the expert workshop and the stakeholders' workshop, participants indicated the difficulty to derive a modal shift potential linked to the ability to see all offerings on an MDMS platform and the ability to book all visible travel options on an MDMS platform, since there have been little relevant applications of similar initiatives that could allow to deduct lessons. Acknowledging the uncertainty, sensitivity analysis has been performed with regard to the maximum modal shift potential due to the completeness and the ability to book service offerings, which is presented in section 7.6.

The changes in transport activity estimated in the policy options are driven by the completeness and the ability to book service offerings displayed on MDMS platforms. The passenger rights dimension falls outside the scope of the analysis, but it is acknowledged that strengthened passenger confidence could support the modal shift towards rail. The targeted revision of rail passenger rights is supported by an analytical Staff Working Document which updates the assessment of impacts of the related policy measure.

The proposed options are assumed to be implemented from 2028 onwards, so the assessment has been undertaken for the 2028-2050 period and covers the EU Member States. Costs and benefits are expressed as

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present value over the 2028- 2050 period, using a 3% discount rate. All costs and benefits are expressed in 2024 prices. Further details on the methodological approach, together with costs and costs savings results by stakeholder group for specific years and by Member State (where relevant), are provided in Annex 4.

6.1. Economic impacts

This section provides the economic impacts of the policy options on MDMS platforms, transport operators, national authorities and the European Commission. It also provides an assessment of impacts on small and medium enterprises (SMEs), user costs and congestion, competitiveness, functioning of the internal market and competition, innovation, digital by default, tourism and territorial impacts. Details on the calculation of costs by policy measure and policy option, by stakeholder group and Member State[180] are provided in Annex 4 (section 3).

6.1.1. Impacts on MDMS platforms

One-off and recurrent adjustment costs for MDMS platforms. All four policy options are expected to lead to one-off and recurrent adjustment costs for MDMS platforms relative to the baseline (see Table 3 and Table 4 below). PM1 (neutral display), PM2 (equal care for data), PM3 (marketing and booking data sharing), PM7 (data for mobility management) and PM8 (GHG emission data) are common to all POs. Their costs are driven by the number of projected MDMS platforms in each PO (see Table 5), the one-off cost per platform for IT development (in PM1 to PM3 and PM8) and for setting up an Application Programming Interface (API) (in PM7), and the recurrent cost per platform for maintaining the IT system, including display criteria and the API.

Among the common measures the biggest costs stem from the obligation for B2C MDMS to share non-personal data for mobility management with public authorities (PM7) and come from the set-up and maintenance of an API[181]. The total one-off and recurrent costs for PM7 are estimated to be highest in PO2 (EUR 72.6 million, expressed as present value over 2028-2050 relative to the baseline, of which EUR 30 million one-off costs) due to the highest number of platforms projected in this PO, followed by PO4 (EUR 70.8 million, of which EUR 29.1 million one-off costs), PO3 (EUR 69.4 million, of which EUR 28.3 million one-off costs) and PO1 (EUR 52.9 million, of which EUR 20.8 million one-off costs). Other important adjustment costs common to all POs are linked to the neutral display obligations (PM1) and the obligation to display GHG/CO2 emissions when provided by transport operators (PM8). Each of the two measures will result in one-off and recurrent adjustment costs for MDMS platforms, related to the IT development to adjust display criteria and their maintenance, of around EUR 16 to 17 million in PO2, PO3 and PO4 (of which EUR 6.4 to 6.9 million one-off costs), and EUR 12 million in PO1 (of which close to EUR 5 million one-off costs). The costs associated with PM1 are lower for CRS than other MDMS as they must already comply with similar neutral display requirements from the Code of Conduct in the baseline[182].

PO3 additionally includes one-off adjustment costs for indispensable RU platforms to enter into commercial agreements with willing RUs (PM14), to enable the distribution of tickets, estimated at EUR 0.4 million expressed as present value over 2028-2050 relative to the baseline. These cover the costs of negotiating new

[180] Most B2B MDMS platforms operate EU-wide, and it is not possible to split the costs arising from obligations on these platforms by Member State. On the other hand, many B2C platforms are more localised and based on desk research in the context of the impact assessment support study it was possible to ascertain in which Member States they offer services. Thus, for policy measures that affect B2C platforms the associated costs are also provided by Member State, while for B2B platforms costs are provided at EU-level only in Annex 4.

[181] Drawing on stakeholder feedback, the one-off adjustment cost per B2C platform for setting up an API is estimated at EUR 117,719 in 2024 prices. The maintenance of the API is estimated at 10% of the initial setup cost (i.e. EUR 11,772).

[182] In PM1 the one-off cost per MDMS platform (excluding CRS) is estimated at EUR 23,125 and the one-off cost per CRS at EUR 7,708. Part of PM1 requirements is already met in the baseline by CRSs. In PM8 the one-off cost is the same for CRSs and other MDMS platforms (EUR 23,125). The maintenance cost per platform is estimated at 10% of the one-off cost.

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agreements[183]. PO4 leads to significantly higher one-off adjustment costs due to the unbundling obligation (PM15), requiring 19 indispensable RU platforms to undertake an important legal and administrative reorganisation estimated at EUR 157.7 million.

The total one-off and recurrent adjustment costs, expressed as present value over 2028-2050 relative to the baseline, are thus estimated to be highest in PO4 (EUR 282.3 million), followed by PO2 (EUR 127.7 million), PO3 (EUR 122.3 million) and PO1 (EUR 92.9 million). The one-off adjustment costs due to the unbundling obligation (PM15) represent 56% of the total adjustment costs in PO4, while the one-off and recurrent adjustment costs for the set-up and maintenance of the API to share non-personal data for mobility management with public authorities (PM7) represent 57% of the total adjustment costs in PO1, PO2 and PO3 and 25% of the total adjustment costs in PO4.

One-off administrative costs for MDMS platforms. In all POs, MDMS platforms need to notify national authorities and/or the Commission upon reaching the SMP thresholds (PM10). This results in one-off administrative costs borne by MDMS platforms reaching the SMP thresholds. Building on the Impact Assessment of the DMA[184], the assumption retained for calculating the cost incurred on MDMS platforms is that only two full time equivalents (FTEs) would be needed to comply with the requirement. This is because only one quantitative indicator is requested, and no further qualitative information is asked to support the decision. The administrative burden is kept to the minimum since the designation process leverages on information already submitted through the Rail Market Monitoring Scheme. In this context, RUs must provide information that can support the designation process as MDMS platforms with SMP. Four MDMS platforms are expected to reach the SMP thresholds in 2028 (the assumed year of implementation) and the one-off cost per platform is estimated at EUR 113,053. Thus, *for the purpose of 'one in, one out' approach and the Calculator of Administrative Costs (AC) & Administrative Burdens (AB)*, the total one-off administrative costs for MDMS platforms are estimated at EUR 0.5 million relative to the baseline.

Adjustment costs savings for MDMS platforms. In all POs, the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties is expected to result in recurrent adjustment cost savings for MDMS platforms as these measures are expected to streamline the negotiation processes[185]. Although PM11 and PM12 are included in all policy options, the cost savings vary significantly between options since they are calculated based on the changes in the number of new and renegotiated commercial agreements compared to the baseline. The number of new and renegotiated commercial agreements in each PO depends in turn on other policy measures included in each option. For PO1 cost savings are estimated at EUR 13 million (EUR 12 million due to PM11 and EUR 1 million due to PM12), expressed as present value over 2028-2050 relative to the baseline, as this PO does not introduce strong incentives for the conclusion of new agreements or for the renegotiation of agreements relative to the baseline. Conversely, PO2 introduces a sharing obligation (PM13), significantly increasing the number of commercial agreements between indispensable RUs and MDMS platforms, resulting in the highest costs savings for MDMS platforms, projected at EUR 149 million (EUR 136.1 million due to PM11 and EUR 12.9 million due to PM12) relative to the baseline. PO3, which additionally includes a hosting obligation (PM14) result in adjustment cost savings of EUR 134 million (EUR 122.3 million due to PM11 and EUR 11.7 million due to PM12) relative to the baseline. The lower costs savings in PO3 are due to the lower number of new and renegotiated agreements relative to PO2. Finally, while the unbundling requirement (PM15) in PO4 does not mandate commercial agreements, the neutrality it fosters on indispensable rail platforms facilitates additional agreements relative to PO3, with cost savings projected to reach EUR 142.7 million

[183] The one-off cost per new agreement negotiated by indispensable RU platforms is estimated at EUR 29,772.
[184] SWD(2020) 363 final. The Digital Market Act assumed 20 FTEs per 'Gatekeeper' for submission of relevant data to authorities. In this case, the entities are much smaller than those regulated under the DMA (Apple, Google, etc.) and the process is expected to be much lighter (platforms only need to notify that they have reached a threshold).
[185] The cost saving per new agreement is assumed at EUR 2,000 and per renegotiated agreement at EUR 1,183, based on input from stakeholders.

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(EUR 130.4 million due to PM11 and EUR 12.3 million due to PM12) relative to the baseline.

Net costs/benefits for MDMS platforms. Overall, PO1 and PO4 are expected to lead to net costs, although at varying degrees, while PO2 and PO3 are expected to deliver net benefits. PO4 shows the highest net costs, amounting to EUR 140 million, expressed as present value over 2028-2050 relative to the baseline, primarily due to the significant adjustment costs linked to the unbundling requirement, as outlined previously. In PO1, the adjustment cost savings are not sufficient to offset the adjustment and administrative costs, leading to net costs of EUR 80.4 million relative to the baseline. In PO2, the introduction of a sharing obligation (PM13) leads to the highest adjustment cost savings related to streamlined negotiation processes (PM11 and PM12), resulting in net benefits of EUR 20.9 million relative to the baseline. PO3 also results in net benefits, estimated at EUR 11.3 million relative to the baseline.

Table 3: One-off and recurrent costs, and costs savings for MDMS platforms in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment costs	**92.9**	**127.7**	**122.3**	**282.3**
PM1 (Neutral display)	12.0	16.5	15.8	16.1
PM2 (Equal care for data)	9.0	12.4	11.8	12.1
PM3 (Marketing and booking data sharing)	6.9	9.5	9.1	9.3
PM7 (Data for mobility management)	52.9	72.6	69.4	70.8
PM8 (GHG emission data)	12.1	16.7	15.9	16.3
PM14 (Obligation to host)	0.0	0.0	0.4	0.0
PM15 (Obligation to unbundle)	0.0	0.0	0.0	157.7
Administrative costs	**0.5**	**0.5**	**0.5**	**0.5**
PM10 (Designation of indispensable MDMS and RUs)	0.5	0.5	0.5	0.5
Adjustment cost savings	**13.0**	**149.0**	**134.0**	**142.7**
PM11 (Commercial agreement rules indispensable MDMS)	12.0	136.1	122.3	130.4
PM12 (Commercial agreement rules indispensable RUs)	1.0	12.9	11.7	12.3
Net costs (-) or net benefits (+)	**-80.4**	**20.9**	**11.3**	**-140.0**

Source: Ricardo et al. (2026), Impact assessment support study

Table 4: One-off costs for MDMS platforms in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment costs	**36.5**	**52.8**	**50.1**	**208.9**
PM1 (Neutral display)	4.7	6.9	6.4	6.6
PM2 (Equal care for data)	3.5	5.1	4.8	5.0
PM3 (Marketing and booking data sharing)	2.7	3.9	3.7	3.8
PM7 (Data for mobility management)	20.8	30.0	28.3	29.1
PM8 (GHG emission data)	4.8	6.9	6.5	6.7
PM14 (Obligation to host)	0.0	0.0	0.4	0.0
PM15 (Obligation to unbundle)	0.0	0.0	0.0	157.7
Administrative costs	**0.5**	**0.5**	**0.5**	**0.5**
PM10 (Designation of indispensable MDMS and RUs)	0.5	0.5	0.5	0.5
Total one-off costs	**37.0**	**53.3**	**50.6**	**209.3**

Source: Ricardo et al. (2026), Impact assessment support study

A change in the number of MDMS platforms is not a policy objective. However, the projected number of platforms in each policy option, as well as the number of agreements between the MDMS platforms and the

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transport operators, are provided below to facilitate the understanding of the costs. The number of platforms is projected to increase in all policy options relative to the baseline due to the enhanced ability of MDMS platforms to display more travel options, promoting competition in the online ticketing market. This is assumed to imply an increase in the number of MDMS platforms although it should be acknowledged that existing platforms could also improve their offerings, which could lead to a consolidation towards a lower number of platforms. Such consolidation is assumed to take place towards 2050 in the projections. However, it should be acknowledged that the consolidation could also take place earlier. Thus, the costs for the MDMS platforms should be regarded as the upper bound.

PO1 is projected to result in the lowest number of additional MDMS platforms relative to the baseline (10 in 2030, 45 in 2040 and 19 in 2050) for all time horizon under assessment. In 2030, the sharing obligation (PM13) provides more opportunities for new platforms than in PO1. The effect is the highest in PO2 relative to the baseline (29 additional platforms in 2030), since in PO3 some platforms would anticipate a broader offer by the incumbents due to the hosting obligation (PM14) and see less margin for an alternative offer and thus new platforms (26 additional platforms relative to the baseline in 2030). The effect in PO4 is between that of PO2 and PO3 (27 additional platforms relative to the baseline in 2030) because the new platforms are expected to perceive the unbundled platform as a less strong competitor, once it is no longer tied to the incumbent rail operators. In 2040, in PO2 the incumbent platforms are expected to continue to show a limited offer, and new platforms would exploit the opportunities that this creates. PO2 thus results in 282 additional platforms relative to the baseline in 2040. In PO3, incumbent platforms provide a full offer, and customers have no reason to switch. The number of new additional platforms is thus expected to be lower than in PO2 (235 additional platforms relative to the baseline in 2040). PO4 sits between PO2 and PO3, since the unbundled platforms are not as strong as the vertically integrated ones and leave more space for the new platform (258 additional platforms relative to the baseline in 2040). By 2050, the market is expected to converge towards the same number of platforms in PO2, PO3 and PO4 (209 additional platforms relative to the baseline). In PO2, the strong competition between platforms is expected to erode the legacy advantage of the incumbents. This creates an intense competition leading to a consolidation of the sector. In PO3 no change is expected relative to 2040, while in PO4 some consolidation also takes place but to a lesser extent than in PO2.

Table 5: Projected number of MDMS platforms across EU27 in the baseline and policy options in 2028, 2030, 2040 and 2050

	2028	2030	2040	2050
Baseline				
B2B platforms	98	99	106	113
B2C platforms	266	270	289	308
Total	**364**	**369**	**395**	**421**
PO1				
B2B platforms	98	102	118	118
B2C platforms	266	277	322	322
Total	**364**	**379**	**440**	**440**
PO2				
B2B platforms	98	107	182	169
B2C platforms	266	291	495	461
Total	**364**	**398**	**677**	**630**
PO3				
B2B platforms	98	106	169	169
B2C platforms	266	289	461	461
Total	**364**	**395**	**630**	**630**
PO4				
B2B platforms	98	106	175	169
B2C platforms	266	290	478	461
Total	**364**	**396**	**653**	**630**

Source: Ricardo et al. (2026), Impact assessment support study

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Similarly, the number of agreements between MDMS platforms and transport operators is projected to increase in all policy options relative to the baseline. As shown in the table below, this increase is expected to be significantly higher in PO2, PO3 and PO4 compared to PO1 (around 5% increase relative to the baseline in 2050 in PO1 against 97% in PO2, PO3 and PO4 – all compared to the baseline). PO2 shows the highest impact in 2030 and 2040 with respectively 20,511 and 66,241 additional agreements relative to the baseline due to the highest number of additional platforms in this policy option relative to the baseline.

Table 6: Projected number of agreements between MDMS platforms and transport operators across EU in the baseline and policy options in 2028, 2030, 2040 and 2050

	2028	2030	2040	2050
Baseline	48,624	49,321	52,808	56,295
PO1	48,624	50,671	58,862	58,862
difference to baseline	0	1,350	6,054	2,567
% difference to baseline	0%	3%	11%	5%
PO2	63,870	69,832	119,049	110,673
difference to baseline	15,246	20,511	66,241	54,378
% difference to baseline	31%	42%	125%	97%
PO3	63,883	69,248	110,686	110,686
difference to baseline	15,259	19,927	57,878	54,391
% difference to baseline	31%	40%	110%	97%
PO4	64,402	69,519	114,842	110,673
difference to baseline	15,778	20,198	62,034	54,378
% difference to baseline	32%	41%	117%	97%

Source: Ricardo et al. (2026), Impact assessment support study

6.1.2. Impacts on transport operators

The number of transport operators in the scope of this initiative is provided in Annex 4 (section 2.2.3) and is assumed to remain constant over time in the baseline scenario and across policy options.

One-off adjustment costs for transport operators. PO2, PO3 and PO4 are expected to lead to one-off adjustment costs for transport operators relative to the baseline (see Table 7). These costs are driven by the requirement for RUs to allow the distribution of their tickets (PM13) and calculated based on the projected number of new commercial agreements between MDMS platforms and RUs[186]. PO2 is expected to show the highest number of new agreements and thus also the highest one-off costs expressed as present value over 2028-2050 relative to the baseline (EUR 48.2 million), followed by PO4 (EUR 45.2 million) and PO3 (EUR 42.2 million).

One-off administrative costs for transport operators. In all policy options, *for the purpose of 'one in, one out' approach and the Calculator of Administrative Costs (AC) & Administrative Burdens (AB),* low one-off administrative costs of EUR 1,356 at EU level are expected for RUs with SMP (see Table 8)[187]. These costs relate to informing national authorities about their parent platforms (opened to other RUs) in view of considering them as indispensable RU platforms (PM10).

Adjustment costs savings for transport operators. In all policy options, the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties

[186] The one-off adjustment costs for indispensable RUs due to PM13 cover two elements: (i) the cost of negotiating the agreement; and (ii) the cost of facilitating data exchange for distribution. These two elements translate into a one-off cost of onboarding a new third-party platform estimated at EUR 29,772 per agreement.

[187] It is assumed that 2 hours are needed per RU with SMP for this task. The cost per RU is estimated at EUR 71.4, considering the hourly rates for the ISCO3 category (technicians and associate professionals) from the 'Eurostat Structure of earnings survey. The total one-off administrative costs at EU level are estimated at EUR 1,356 in 2028 taking into account the 19 RUs in scope of PM10.

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is expected to result in cost savings for transport operators (see Table 7) as these measures are expected to streamline negotiation processes[188]. Although PM11 and PM12 are included in all policy options, the cost savings vary significantly between options since they are calculated based on the projected number of new and renegotiated commercial agreements compared to the baseline. As explained in section 6.1.1, the number of new and renegotiated commercial agreements in each PO depends in turn on other policy measures included in each option. For PO1 cost savings are estimated at EUR 13 million (EUR 12 million due to PM11 and EUR 1 million due to PM12), expressed as present value over 2028-2050 relative to the baseline, as this PO does not introduce strong incentives for the conclusion of new agreements or for the renegotiation of agreements. Conversely, PO2 introduces a sharing obligation (PM13), significantly increasing the number of commercial agreements between indispensable RUs and MDMS platforms, resulting in the highest cost savings for transport operators, projected at EUR 149 million (EUR 136.1 million due to PM11 and EUR 12.9 million due to PM12) expressed as present value over 2028-2050 relative to the baseline. PO3 additionally incorporates a hosting obligation (PM14) leading however to lower adjustment cost savings of EUR 134 million (EUR 122.3 million due to PM11 and EUR 11.7 million due to PM12) relative to the baseline. This is because of the lower number of new and renegotiated agreements projected in PO3 relative to PO2. Finally, while the unbundling requirement (PM15) in PO4 does not mandate commercial agreements, the neutrality it fosters on indispensable RU platforms facilitates a higher number of agreements relative PO3, with cost savings projected to reach EUR 142.7 million (EUR 130.4 million due to PM11 and EUR 12.3 million due to PM12) relative to the baseline.

Net benefits for transport operators. All policy options are expected to result in net benefits for transport operators, although to varying degrees (see Table 8). PO2 shows the highest net benefits (EUR 100.9 million), expressed as present value over 2028-2050 relative to the baseline, followed by PO4 (EUR 97.6 million) and PO3 (EUR 91.8 million). The highest net benefits in PO2 are because the introduction of a sharing obligation (PM13) considerably increases the adjustment cost savings related to the commercial agreement rules (PM11 and PM12). PO1 results in considerably lower net benefits for transport operators, estimated at EUR 13 million relative to the baseline.

Table 7: One-off costs and costs savings for transport operators in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment costs	**0.0**	**48.2**	**42.2**	**45.2**
PM13 (Obligation to share)	0.0	48.2	42.2	45.2
Administrative costs	**0.001**	**0.001**	**0.001**	**0.001**
PM10 (Designation of indispensable MDMS and RUs)	0.001	0.001	0.001	0.001
Adjustment cost savings	**13.0**	**149.0**	**134.0**	**142.7**
PM11 (Commercial agreement rules indispensable MDMS)	12.0	136.1	122.3	130.4
PM12 (Commercial agreement rules indispensable RUs)	1.0	12.9	11.7	12.3
Net costs (-) or net benefit (+)	**13.0**	**100.9**	**91.8**	**97.6**

Source: Ricardo et al. (2026), Impact assessment support study

Table 8: One-off costs for transport operators in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment costs	**0.0**	**48.2**	**42.2**	**45.2**
PM13 (Obligation to share)	0.0	48.2	42.2	45.2
Administrative costs	**0.001**	**0.001**	**0.001**	**0.001**
PM10 (Designation of indispensable MDMS and RUs)	0.001	0.001	0.001	0.001

[188] The cost saving per new agreement is assumed at EUR 2,000 and per renegotiated agreement at EUR 1,183, based on input from stakeholders.

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Total one-off costs	**0.0**	**48.2**	**42.2**	**45.2**

Source: Ricardo et al. (2026), Impact assessment support study

6.1.3. Impacts on national authorities

Recurrent enforcement costs for national authorities. All policy options are expected to lead to recurrent enforcement costs for national authorities, estimated at EUR 106.5 million, expressed as present value over 2028-2050 relative to the baseline. These costs are driven by PM6 which requires national authorities to monitor the online ticketing market for potential entities with SMP as well as the correct implementation of the legislation (see Table 9)[189].

One-off and recurrent administrative costs for national authorities. All policy options are expected to lead to recurrent administrative costs for national authorities for settling disputes (PM6). Based on feedback from stakeholders, one FTE is assumed to be needed per national authority. *For the purpose of the Calculator of Administrative Costs (AC) & Administrative Burdens (AB),* recurrent administrative costs are estimated at EUR 1.53 million per year from 2028 onwards[190] (or EUR 25.8 million expressed as present value over 2028-2050 relative to the baseline). In addition, one-off administrative costs for national authorities are expected in relation to the obligation to process notifications from platforms with SMP and submit this information to the Commission in 2028 (PM10) (see Table 10). The one-off effort required is estimated at 2 FTEs per Member State in 2028. The one off-costs *for the purpose of the Calculator of Administrative Costs (AC) & Administrative Burdens (AB)* are estimated at EUR 3.1 million[191]. Efforts have been made to keep these costs as low as possible, but they remain unavoidable, as they are essential to ensure settling disputes, the processing of notifications from platforms with SMP and the submission of this information to the Commission.

Net costs for national authorities. All policy options include a similar designation and enforcement process and result in net costs of EUR 135.4 million for national authorities, expressed as present value over 2028-2050 relative to the baseline (see Table 9). Enforcement costs represent 79% of the total costs in all policy options.

Table 9: One-off and recurrent costs for national authorities in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	**PO2**	**PO3**	**PO4**
Enforcement cost	**106.5**	**106.5**	**106.5**	**106.5**
PM6 (Enforcement authority)	106.5	106.5	106.5	106.5
Administrative costs	**28.9**	**28.9**	**28.9**	**28.9**
PM6 (Enforcement authority)	25.8	25.8	25.8	25.8
PM10 (Designation of indispensable MDMS and RUs)	3.1	3.1	3.1	3.1
Net costs	**135.4**	**135.4**	**135.4**	**135.4**

Source: Ricardo et al. (2026), Impact assessment support study

Table 10: One-off costs for national authorities in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	**PO2**	**PO3**	**PO4**
Administrative costs	**3.1**	**3.1**	**3.1**	**3.1**

[189] Based on stakeholder feedback this is expected to require maximum 4 full time equivalents (FTEs) per Member State. For monetising the labour costs, the hourly rates for the ISCO3 category (technicians and associate professionals) from the 'Eurostat Structure of earnings survey, Labour Force Survey data' have been used. In addition, the number of working hours per day is assumed at 7.2 hours, and the number of working days per year at 220.

[190] One full time equivalent (FTE) is assumed to be needed per national authority, with recurrent administrative costs estimated at EUR 56,527 per national authority. 27 national authorities are considered for calculating the total recurrent costs.

[191] The one-off administrative costs per Member State are estimated at EUR 113,053.

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	Difference to baseline			
	PO1	PO2	PO3	PO4
PM10 (Designation of indispensable MDMS and RUs)	3.1	3.1	3.1	3.1
Total one-off costs	**3.1**	**3.1**	**3.1**	**3.1**

Source: Ricardo et al. (2026), Impact assessment support study

6.1.4. Impacts on the European Commission

Recurrent adjustment costs for the European Commission. All policy options lead to recurrent adjustment costs for the European Commission, estimated in total at EUR 5.3 million, expressed as present value over 2028-2050 relative to the baseline (see Table 11). These are due to the obligation for the European Commission to designate B2C MDMS platforms with SMP at European level and deal with potential complaints (PM10)[192], estimated at EUR 4 million, and due to the support for the coordination of enforcement with an EU-wide enforcement network and monitoring of the market (PM6)[193], estimated at EUR 1.3 million.

Table 11: Recurrent adjustment costs for the European Commission in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment costs	**5.3**	**5.3**	**5.3**	**5.3**
PM6 (Enforcement authority)	1.3	1.3	1.3	1.3
PM10 (Designation of indispensable MDMS and RUs)	4.0	4.0	4.0	4.0
Net costs	**5.3**	**5.3**	**5.3**	**5.3**

Source: Ricardo et al. (2026), Impact assessment support study

6.1.5. Impacts on SMEs

The SME check has been performed and is presented in Annex 6. SMEs are not directly affected by any of the policy options and do not incur any cost. However, SME MDMS platforms and SME transport operators are expected to benefit from the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) in all policy options. These rules will streamline negotiation processes through a more harmonized approach that reduces commercial negotiation efforts and guarantees a fairer access to key offers and platforms. Thus, adjustment costs savings are expected for both SME MDMS platforms and SME transport operators in all policy options.

Adjustment costs savings for SME MDMS platforms. SME MDMS platforms will benefit from adjustment cost savings linked to the introduction of commercial agreement rules (PM11 and PM12)[194]. As explained in section 6.1.1, although PM11 and PM12 are included in all policy options, the cost savings vary between them, since they are calculated based on the projected number of new and renegotiated commercial agreements relative to the baseline. The highest adjustment costs savings, expressed as present value over 2028-2050 relative to the baseline, would be achieved in PO2 (EUR 101 million) due to the synergies with PM13 (obligation to share) that leads to a significantly higher number of new and renegotiated commercial agreements relative to the baseline. PO4 and PO3 also result in significant adjustment costs savings for SME MDMS platforms (EUR 95.7 million in PO4 and EUR 90.5 million in PO3), while PO1 is expected to result

[192] This is assumed to require 2 full time equivalents (FTE) per year from 2028 onwards. The cost per FTE was assumed at EUR 118,326 at AD5 level, including overheads.

[193] The European Commission is assumed to organise one meeting of the EU-wide enforcement network per year from 2028 onwards, to exchange best practices. The average cost for a two-day in-person meeting hosted by EC, where participants are reimbursed by the EC, is around EUR 30,000. In addition, each two years from 2030 onwards, a Eurobarometer survey is assumed to be conducted. The costs for the Eurobarometer survey, are assumed at EUR 100,000 per year based on the costs of the Eurobarometer survey conducted in 2024.

[194] The cost saving per new agreement is assumed at EUR 2,000 and per renegotiated agreement at EUR 1,183, based on input from stakeholders.

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in lower costs savings (EUR 9.2 million).

Table 12: Recurrent adjustment costs savings for SME MDMS platforms in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment cost savings	**9.2**	**101.0**	**90.5**	**95.7**
PM11 (Commercial agreement rules indispensable MDMS)	8.6	93.7	83.9	88.8
PM12 (Commercial agreement rules indispensable RUs)	0.5	7.3	6.6	6.9
Net benefit	**9.2**	**101.0**	**90.5**	**95.7**

Source: Ricardo et al. (2026), Impact assessment support study

Adjustment costs savings for SME transport operators. As for SME MDMS platforms, in all policy options, SME transport operators will also benefit from the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12). As for SME MDMS platforms, adjustment costs savings for SME transport operators, expressed as present value over 2028-2050 relative to the baseline, are estimates to be the highest in PO2 (EUR 107 million), followed by PO4 (EUR 102.5 million), PO3 (EUR 96.1 million) and PO1 (EUR 9.4 million).

Table 13: Recurrent adjustment costs savings for SME transport operators in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Adjustment cost savings	**9.4**	**107.0**	**96.1**	**102.5**
PM11 (Commercial agreement rules indispensable MDMS)	9.4	106.2	95.4	101.8
PM12 (Commercial agreement rules indispensable RUs)	0.1	0.8	0.7	0.7
Net benefits	**9.4**	**107.0**	**96.1**	**102.5**

Source: Ricardo et al. (2026), Impact assessment support study

Net benefits for SMEs. Total net benefits for SMEs (MDMS platforms and transport operators) are estimated at EUR 208 million in PO2, EUR 198.2 million in PO4, EUR 186.6 million in PO3, and EUR 18.6 million in PO1 expressed as present value over 2028-2050 relative to the baseline. As explain above, the obligations included in the policy options do not apply to SMEs and SMEs are only expected to indirectly benefit from them.

SMEs views were considered via stakeholder consultation activities, including the targeted survey and interviews conducted in the context of the impact assessment support study, and the OPC. Overall, SMEs expressed favourable views on the policy options, with strong support for the introduction of binding rules and the introduction of commercial agreement rules. An overview of SMEs' views is provided in the SME check, in Annex 6.

6.1.6. Impacts on user costs and congestion

The proposed policy options are expected to benefit transport users through three channels: (i) a reduction of search costs for travellers; (ii) an increase in competition in the platform market; (iii) an increase in competition in the transport market.

The reduction of search costs for travellers. The most direct effect would be the reduction in search cost, as travellers would be able to find, compare and purchase tickets in a single place without having to perform longer searches and visit multiple platforms. In the baseline scenario, travellers must dedicate time and effort to search for the most convenient offer in terms of fares, comfort and travel time, with no guarantee that they will manage to find the offer that best matches their preferences. Under the various policy options, and to the extent that the measures included in each option will provide customers with a complete ticketing offer in a single place, travellers will most certainly save time on searches, but possibly also gain in terms of travel time

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and more convenient fares. The assessment below considers them jointly as 'reduction of search costs'.

This effect would be present in PO1, thanks to neutral display requirements that would make convenient offers more visible to potential customers. However, the impact would be limited, since there are no provisions in this option that have the effect of widening the offer of platforms and guaranteeing that a complete ticketing offer becomes available on single platforms. In PO2, the addition of the 'sharing obligation' (PM13) would enable a complete ticketing offer on willing platforms. The effect would thus be stronger than PO1 but still be limited to the customer base of independent platforms, since indispensable RU platforms have shown no willingness to host the full offer of competitors. In PO3, the further addition of the 'hosting obligation' (PM14) would make a substantial difference, since now the possibility to access a complete ticketing offer would be extended to the customers of indispensable RU platforms that have by far the largest reach. The reduction in search cost would be highest in this case. In PO4, the unbundling of vertically integrated platforms would remove the perverse incentives to limit their ticketing offer. Accordingly, the magnitude of the reduction in search cost for consumers would be similar to PO3 but it is likely to be achieved with a certain delay due to the need for restructuring processes.

Implications for consumers of increased competition in the platform market. Increased competition in the platform market would lead to greater innovation efforts, widening of services available on platforms, improvements in the overall ticketing experience, and possibly reduction of transaction costs for users. PO1 would not substantially affect competition in the platform market, since, broadly speaking, it will neither affect the content, nor the incentives of platforms, but only the presentation of existing offers. PO2 would have an impact on the content of independent platforms, making them a more attractive distribution channel for consumers. This will improve their position vis à vis the indispensable platforms and increase overall competition in the platform market. The inertia in consumer behaviour might however dampen the effect as many consumers would remain loyal to indispensable platforms. PO3 would oblige indispensable RU platforms to host a complete ticketing offer (PM14). This is likely to reinforce their appeal in the market, but at the same time would deprive them of any possibility of abusing behaviour (by virtue of the common measures included in all options, PM1 to PM12) or denying access to competitors (PM14). This would change the incentives for indispensable platforms, inducing a behaviour that is closer to that of 'normal' platforms that seek to maximise market intermediation. This, in turn, might elicit even stronger innovation efforts from competing independent platforms. Indeed, in the baseline, PO1 and, partly, PO2, platforms have near 'captive' customers (incumbent operators for the incumbent platforms and new entrants for the independent platforms[195]) and competition is affected by access limitations to both content and distribution channels. Under PO3, the sharing and hosting obligation provide all operators with full access to tickets and platforms. This is likely to push platforms to compete more strongly on innovation, user experience, customer care and additional services, since they can no longer rely on exclusive content. Similar considerations can be made for PO4, although the impact might take longer to manifest. Altogether, it is expected that PO3 would produce greater benefits for consumers from competition in the platform market, followed by PO4.

Implications for consumers of increased competition in the transport market. Greater competition in the transport market would tend to lower prices and increase the quality and frequency of transport services. The amount of pressure exercised by competition would be proportional to the number of customers being able to easily find, compare and purchase the most convenient travel offers. PO1 would improve visibility and fair representation of existing offers on online platforms, but it would not broaden their ticketing offer. This would promote competition in the transport market, but not as substantially as the other policy options. PO2 would affect the content of independent platforms, giving them access to indispensable tickets. Customers of independent platforms would therefore be able to compare the offers of different transport operators and opt for the most convenient. Initially, the competitive pressure on the transport market would only be exercised through the customers of independent platforms. However, the effect would become stronger if consumers

[195] Independent platforms might be the only available sale channel for new entrant rail operators, since, as already indicated, many indispensable RU platforms are not willing to sell tickets of new entrants.

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begin switching to independent platforms attracted by their broader offer. PO3 would oblige indispensable platforms to host a complete ticketing offer (PM14). In this case, nearly all consumers would be able to compare directly the offers of transport operators and buy the most convenient one. As argued in Section 6.1.8 on the functioning of the internal market and on competition, this is likely to lead to stronger price competition between RUs. Accordingly, PO3 would have the largest effect on consumers through competition in the transport market. PO4 is likely to lead to a situation similar to that of PO3, meaning a situation in which indispensable platforms host a complete ticketing offer. However, this outcome is likely to materialise with a certain delay with respect to PO3, due to the necessary restructuring processes.

Overall assessment of impacts on user costs. The policy options are expected to generate significant benefits for consumers by reducing search costs and fostering greater competition in both the platform and transport markets. While the resulting enhanced "trust" in rail as an easy, accessible, modern and reliable user-friendly mode of transport is difficult to the quantify, the most immediate and tangible effect across all options is the reduction of search costs. By enabling travellers to find, compare, and purchase tickets in a single location, the policy options would eliminate the need to conduct lengthy searches across multiple platforms. This simplification of the purchasing process enhances convenience, transparency, and efficiency for consumers.

The overall impact on consumers' costs would be the strongest, as well as the quickest to materialise, in the case of PO3. PO4 would come second in terms of overall impact and but its effects would unfold more gradually, due to the need to restructure the business of indispensable platforms following unbundling. PO2 would have a more moderate impact, since the cost reduction would be generated by the action of independent platforms that have a smaller customer base, although this would grow in time. Finally, only a negligeable impact on transport cost can be expected to result from PO1, which would change the presentation, but not the scope of the ticketing offer on the platforms.

The table below presents the impacts on average expenditure per person for interurban mobility in the policy options relative to the baseline. It shows that the impacts are highest in PO3 (0.27% reduction in 2040 and 0.34% reduction in 2050 relative to the baseline), followed by PO4 and PO2, while the impacts of PO1 are negligible. These impacts do not consider the reduced search costs for the most convenient offer in terms of fares, comfort and travel time, which are difficult to quantify and thus only assessed qualitatively.

Table 14: Impacts on average expenditure per person for interurban mobility, at EU27 level (% change relative to the baseline)

Average expenditure per person for interurban mobility (% change to the baseline)	2030	2040	2050
PO1	-0.01%	-0.03%	-0.05%
PO2	-0.03%	-0.16%	-0.24%
PO3	-0.06%	-0.27%	-0.34%
PO4	-0.04%	-0.19%	-0.28%

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

The reduction of congestion associated with modal shift. By improving the completeness and accuracy of service information, the ability to book service offerings and travel time, as well as reducing user costs of railway transport, the policy options would also generate, to varying degree, modal shift away from road and aviation. In turn, this would reduce congestion costs associated with road traffic relative to the baseline. The impact on congestion costs of the various policy options mirrors the impact on modal shift, with PO3 having the strongest effect (EUR 6.4 billion congestion costs savings, expressed as present value over 2028-2050 relative to the baseline), followed by PO4 (EUR 4.8 billion congestion costs savings), PO2 (EUR 4.4 billion

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congestion costs savings) and PO1 (EUR 1.8 billion congestion costs savings)[196].

Table 15: Impacts on external costs of road congestion in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Savings in external costs of road congestion	1,758	4,352	6,438	4,833

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

6.1.7. Impacts on competitiveness

This proposal is a key enabler of Europe's green competitiveness agenda, directly reinforcing the European Green Deal and the Commission's 2024-2029 priorities by accelerating a shift towards sustainable transport modes, rail in particular, while strengthening the EU's economic resilience in an increasingly digital mobility landscape. All policy options deliver improved operational efficiency and increase in the transport activity by rail and coach due to better visibility and access to these services. In particular, PO2, PO3 and PO4, introduce the obligation to share tickets for indispensable RUs (PM13), unlocking new competitive services and sustainable travel alternatives for passengers, directly addressing the market barriers highlighted in the Draghi Report[197]. When coupled with the obligation to neutrally display offers (PM1), these measures will support fairer competition of operators on all MDMS platforms, and especially indispensable RU platforms – a necessity underlined by the Letta Report[198]'s call for an EU-wide, integrated framework to prevent discriminatory practices in ticket distribution.

Cost competitiveness. The policy options have different impacts on the cost competitiveness of affected businesses. Across all policy options, the common measures increase regulatory clarity and transparency. By extending the CRS Code of Conduct rules, requiring neutral display, ensuring fair data processing and establishing enforcement mechanisms, the initiative reduces legal uncertainty and dispute risk. Streamlined negotiation processes (PM11 and PM12) reduce contractual transaction costs for both MDMS platforms and transport operators in all policy options. Under PO1, the introduction of fair principles improve predictability in commercial negotiations. While agreements remain voluntary, a harmonised framework can reduce inefficient negotiation cycles and lower compliance risks, particularly in cross-border contexts. Under PO2, PO3 and PO4, stronger regulatory obligations increase compliance costs for regulated entities. However, these obligations are expected to improve the completeness and efficiency of integration between operators and platforms. The net effect depends on the balance between compliance costs and efficiency gains (i.e. costs savings).

For MDMS platforms, as explained in section 6.1.1, all policy options are expected to lead to adjustment costs and some limited administrative costs. Total costs, expressed as present value over 2028-2050 relative to the baseline, are estimated to be highest in PO4 (EUR 282.7 million) primarily due to the significant adjustment costs linked to the unbundling requirement, followed by PO2 (EUR 128.1 million), PO3 (EUR 122.7 million) and PO1 (EUR 93.4 million). At the same time, the streamlined negotiation processes (PM11 and PM12) deliver significant adjustment costs savings in PO3, PO4 and PO2 in synergy with other measures included in these options that increase the number of new and renegotiated commercial agreements that benefit of the streamlined processes. Overall, PO2 and PO3 lead to net benefits of EUR 20.9 million and EUR 11.3 million, respectively, expressed as present value over 2028-2050 relative to the baseline. On the other hand, PO4 and PO1 result in net costs (EUR 140 million in PO4 and EUR 80.4 million in PO1).

For transport operators, as explained in section 6.1.2, PO2, PO3 and PO4 are expected to lead to adjustment

[196] The 2019 Handbook on external costs of transport (Handbook on the external costs of transport - Publications Office of the EU (europa.eu)) has been used to monetise the external costs savings.
[197] Draghi, Mario - *The Future of European Competitiveness: In-Depth Analysis and Recommendations.* 2024, p. 213
[198] Letta, Enrico. *Much More Than a Market*. Council of the European Union, 2024, p. 85

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costs related to the obligation to share and all options are expected to require very limited administrative costs for the designation of indispensable RUs. Total costs, expressed as present value over 2028-2050 relative to the baseline, are estimated to be highest in PO2 (EUR 48.2 million), followed by PO4 (EUR 45.2 million), PO3 (EUR 42.2 million) and PO1 with negligible costs. The streamlined negotiation processes (PM11 and PM12) deliver adjustment costs savings in all policy options that outweigh the costs. Net benefits for transport operators, expressed as present value over 2028-2050 relative to the baseline, are estimated at EUR 100.9 million in PO2, EUR 97.6 million in PO4, EUR 91.8 million in PO3 and are more limited in PO1 (EUR 13 million).

By reducing search and booking frictions and improving the visibility of transport offers, the policy options enhance the efficiency of the rail and multimodal transport sectors, strengthening the competitive position of rail and coach services within the multimodal passenger transport market. Improved integration of rail services in MDMS platforms can increase the attractiveness of rail-based itineraries relative to car-only or aviation trips.

As regards SMEs competitiveness, they would also benefit from better market conditions: creating a level playing field for all stakeholders could be particularly beneficial for small businesses or start-ups. New entrant SMEs in the rail transport market would particularly benefit from the obligation for indispensable RU platforms to enter into commercial agreement with willing RUs (PM14). New entrant RUs face the problem of how to establish their brand and typically must resort to costly advertising campaigns, which can be prohibitive for SMEs. PM14 would allow them to benefit from indispensable RU platforms' brand visibility and reach immediately the very high share of customers that use those platforms. In PO4, the obligation for indispensable RUs to unbundle their distribution and operation services (PM15) will also provide better visibility and consumer reach to new entrant RUs, albeit to a lesser extent than PM14. Indeed, the complete unbundling process is expected to be complex and would likely require an extended adjustment period. These newly independent platforms would also not be obliged to negotiate with new rail entrants, therefore decreasing slightly the positive impact on SME competitiveness compared to PM14. Finally, the prohibition of restrictive contractual clauses by indispensable RUs and indispensable MDMS platforms and the introduction of fairer distribution fee principles (PM11 and PM12) in all POs would facilitate agreements between platforms and operators, directly targeting gatekeeping behaviour, curbing anti-competitive practices, and enhancing transparency and fairness. This would therefore greatly support smaller MDMSs and operators in concluding contractual agreements with players benefiting from a strategic position in the market.

The analysis shows that all policy options lead to increases in rail and coach activity relative to the baseline (see section 6.1.8), reflecting improved supply-demand matching and reduced transaction costs. The relative magnitude of these increases in activity differs across options, being highest in PO3, followed by PO4 and PO2.

The entire economy is likely to benefit from these developments since transport represents a significant share of household expenditure and is a critical input for many economic sectors, notably tourism. A better functioning of the transport sector would free resources for additional consumption and investment. This might result in knock-on effects throughout the entire economy in the long term, leveraging the initial impact on the transport sector.

International competitiveness. All policy options apply equally to EU and non-EU platforms when operating within the EU market and do not differentiate by nationality. They therefore do not introduce trade distortions. The impact on international competitiveness is expected to be neutral. The economic effects are confined to improving efficiency and performance within the EU passenger transport market.

6.1.8. Impacts on the functioning of the internal market and on competition

All policy options enhance the functioning of the internal market compared to the baseline. They do so by reducing regulatory fragmentation across the EU and promoting a level playing field for ticket distribution in

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both B2C and B2B markets.

PO1 extends neutral display rules to all B2B actors and introduces rules governing commercial agreements with indispensable B2B and B2C platforms and railway undertakings (RUs), but it does not require any structural changes. Indispensable RUs and platforms would not be obliged to share ticket content or host other RUs, meaning the current market structure would largely remain unchanged. As a result, while PO1 is expected to have a positive impact in promoting a level playing field in B2B distribution, its overall effect would be limited. By focusing on fairness without mandating access, it is unlikely to significantly enhance competition or expand consumer choice. Overall, the measures included in PO1 are projected to lead to 1% increase in rail activity in 2030 and 1.8% increase by 2050 relative to the baseline.

Building on PO1, PO2 introduces a 'sharing obligation', requiring indispensable RUs to share their tickets for distribution on willing platforms. Most RUs already sell their tickets through third party platforms, although they do not always provide a complete offer in terms of connections and fares, especially when they reserve some offers for the clients of their vertically integrated platform. The 'sharing obligation' would fill this gap by requiring that RUs share their complete offer. This would not alter the business model, whereby RUs normally pay a distribution fee to platforms that sell their tickets, but PO2 would ensure that distribution agreements are concluded on the basis of fair, reasonable and non-discriminatory (FRAND) conditions. It should be noted that RUs would inevitably incur distribution costs whether the service is provided in-house or by a third party. Thanks to greater competition in the platform market, streamlined negotiation processes, and application of FRAND conditions, distribution costs may even decrease for RUs in PO2 relative to the baseline. Accordingly, the sharing obligation would not imply any structural change in business models or market structure, but, by ensuring broader access to the ticket offer, it improves the level playing field in the distribution market. However, a key limitation in PO2 is that indispensable RUs (those covering most rail operations in a Member State) retain significant influence on rail ticket distribution in the short to medium term. They could still restrict other RUs' access to their own popular distribution channels, undermining competition. The expected impact is stronger than in PO1 as this option directly influences supply, demand, pricing, and competitive dynamics. Overall, the measures included in PO2 are projected to lead to 1.7% increase in rail activity in 2030 and 3.7% increase by 2050 relative to the baseline.

PO3 takes a bolder step by adding a 'hosting obligation', compelling indispensable RU platforms to sell tickets of requesting RUs. The result is a guaranteed pathway for new RUs to reach customers through established, high traffic platforms, removing a major barrier to entry. Increased competition, in turn, drives innovation and better pricing. Also in this case, there would not be a change in business models of operators. Indispensable RUs platforms would only be caught by the 'hosting obligation' when they have already hosted third party offers, which shows that they have the means, technical expertise and contractual experience to provide such service: the hosting obligation would just ensure that this service is provided on non-discriminatory basis to all requesting RUs, but would not require engaging in a new activity.

There is a hypothetical risk that vertically integrated platforms would seek to avoid regulation by withdrawing from the 'platform' market and halting the sale of any other companies' tickets. This would present the wide customer base of that platform with an even reduced offer. To avoid this, the criterion that will be used to establish whether the platform of a railway undertaking with significant market presence falls under the hosting obligation in PO3 is whether it has sold tickets of other companies in the past five years. There is also a risk that railway undertakings would use cooperation agreements between RUs to evade regulation, claiming that selling these tickets constitutes sale of only their own tickets. To avoid this risk, the sale of tickets for services that are offered in cooperation between two or more RUs (e.g. cross-border services, which are often operated under different RU licenses in different Member States) is considered as sale of tickets of another operator.

While PO3 would not require vertically integrated platforms to provide services to third parties that they had not already offered in the past, the changes in market dynamics would nevertheless be more substantial in PO3

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than in PO2. The joint application of the sharing and hosting obligation will potentially provide all platforms with a complete ticketing offer, and as platforms can no longer rely on preferential access to ticket offers, they are expected to compete more vigorously on aspects like journey planning, ease of search and user experience, customer care, and additional services. The railway service market will be impacted to a much greater extent in PO3 than in PO2, since new railway entrants will have access to a much broader set of potential customers. Indeed, the initial impact of the hosting and sharing obligation would be broadly proportional to the respective size of the customer base of the incumbent and independent platforms. PO3 will thus me more effective in strengthening competition in the railway services market and attract more passenger to this mode of transport, providing a net benefit to the whole sector, although some operators may lose the rents that they still profit from in non-competitive markets.

By fundamentally reshaping market dynamics, this approach ensures fair access to indispensable RU platforms, fostering a more open and competitive railway ecosystem and leading to 2.5% increase in rail activity in 2030 and 4.8% increase by 2050 in PO3 relative to the baseline.

PO4 obligates vertically integrated distribution RU platforms to unbundle from their operators, eliminating inherent conflicts of interest. While it does not impose a hosting obligation, breaking these ties aligns incentives with independent platforms, reducing market distortions caused by dominant players favouring their own services. However, the complexity of implementation (including legal, operational, and transitional challenges) could undermine its efficiency. The expected impact is comparable to that of PO3 (it achieves a fairer, more neutral market) but may do so less efficiently due to the practical difficulties of restructuring established systems. Overall, the measures included in PO4 are projected to lead to 1.9% increase in rail activity in 2030 and 4% increase by 2050 relative to the baseline.

A more detailed assessment of the impacts of the policy options on competition is included in Annex 13.

Table 16: Impact on transport activity in passenger-kilometres at EU level (percentage change relative to the baseline)

		Percentage change to baseline			
		PO1	**PO2**	**PO3**	**PO4**
Car	2030	-0.2%	-0.3%	-0.4%	-0.3%
	2040	-0.3%	-0.7%	-1.0%	-0.7%
	2050	-0.3%	-0.8%	-1.1%	-0.8%
Coach	2030	0.6%	0.9%	1.3%	1.0%
	2040	1.4%	2.1%	2.7%	2.2%
	2050	1.3%	2.1%	2.8%	2.3%
Rail	2030	1.0%	1.7%	2.5%	1.9%
	2040	1.7%	3.4%	4.7%	3.7%
	2050	1.8%	3.7%	4.8%	4.0%
Air	2030	-0.1%	-0.2%	-0.2%	-0.2%
	2040	-0.2%	-0.5%	-0.7%	-0.6%
	2050	-0.4%	-0.9%	-1.0%	-1.0%
Waterborne	2030	0.0%	0.0%	0.01%	0.0%
	2040	0.0%	0.01%	0.01%	0.01%
	2050	0.0%	0.01%	0.01%	0.01%

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

6.1.9. Impacts on innovation

By addressing key barriers in ticket distribution, all policy options create an environment where MDMS platforms and transport operators can develop more integrated, user-friendly, and competitive solutions. PO3

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is expected to have the biggest impact, as it best addresses the key barriers of access to platforms and access to tickets. A major driver of innovation stems from greater transparency and equitable conditions on MDMS platforms, combined with improved access for platforms to indispensable transport offers and to indispensable platforms for RUs. Measures enhancing transparency and fairness on MDMS platforms, including indispensable ones (PM1, PM2, PM3, PM4, PM11 and PM14) incentivise new entrants and smaller operators to innovate, as they gain equal visibility alongside established players. The neutral display obligations (PM1) retain flexibility, allowing MDMS platforms to offer alternative display criteria as long as the end user retains choice. The principles for commercial agreements (PM11) protect smaller operators from unfair bargaining power, enabling them to compete on service quality rather than market clout. Likewise, the possibility for MDMS platforms to integrate indispensable RUs (PM13) and ensure that these do not impose unfair contract terms (PM12) reduce entry barriers, encouraging start-ups and SMEs MDMS to develop new services.

PO1 shares PM1 till PM12 with PO3 and thus also benefits from their positive impact on innovation. This is however limited by the fact that it does not rebalance the market dynamics in the same manner; the lack of access to ticket offers means there is (a lot) less to innovate with. PO2 is better in this regard as it does address this issue through PM13, though still not as effectively as PO3 (which adds PM14). PO3 is expected to particularly boost innovation in the platform market for the reasons explained in Section 6.1.6: PO3 would oblige indispensable RU platforms to host a complete ticketing offer, which is likely to reinforce their appeal in the market, but at the same time would deprive them of any possibility of discrimination. This is likely to induce a behaviour that is closer to that of 'normal' platforms that seek to maximise market intermediation. This, in turn, might elicit even stronger innovation efforts from competing independent platforms. Indeed, in the baseline, PO1 and, partly, PO2, there is a duality in the platform market, where both incumbent and independent platforms have near 'captive' customers (incumbent operators for the incumbent platforms and new entrants for the independent platforms) and competition is affected by access limitations to both content and distribution channels. Under PO3, the sharing and hosting obligation provide all operators with full access to tickets and platforms. This is likely to push platforms to compete more strongly on innovation, user experience, customer care and additional services, since they can no longer rely on exclusive content. PO4 has a similar potential to innovation as PO2; its more fundamental rebalancing potential offset by the time delay associated with restructuring the market though unbundling.

6.1.10. Digital by default

All policy options are fundamentally aligned with the 'digital by default' principle, aiming to foster a robust digital ecosystem within the transport sector. Key measures include the obligations to load and process data with equal care and timeliness (PM2), and to uphold fair principles in commercial agreements (PM11 and PM12). These provisions are included in all options and are designed to encourage fairer and more efficient data exchanges between involved parties, thereby streamlining digital operations and enhancing user experience. The initiative's digital focus is further reinforced by the obligations to share non-personal data with public transport authorities (PM7), present in all four policy options. This will substantially increase the availability and utilisation of mobility data by public authorities, leading to enriched data-driven decision-making and improved service delivery within the transport system. Additionally, the requirement to respect the rules on marketing and booking data (PM3) is instrumental in promoting fair and efficient data sharing practices. By mandating non-discriminatory sharing of marketing, booking, and sales data, all policy options ensure that MDMS platforms facilitate the anonymisation and responsible use of data, fostering a more equitable digital marketplace for all transport operators. Overall, these measures aim to eliminate barriers in acquiring, sharing, combining, and reusing data assets, while maintaining coherent data governance and continuous data management. This approach is thoroughly aligned with the horizontal legal framework established at EU level through the Data Act[199]. Enhanced data sharing plays a key role in enabling the development of innovative multimodal services, ultimately contributing to the establishment of a common European Mobility Data Space and a common European Tourism Data Space. By prioritising digital

[199] OJ L 2023/2854, 22.12.2023

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integration and data accessibility, all policy options pave the way for technological advancements that streamline operations, elevate service standards, and drive sustainable growth across the European transport network.

6.1.11. Impact on tourism

All policy options support the transformation of the tourism sector by unlocking seamless travel experiences for tourists across Europe. Central to this are several measures designed to promote smooth and integrated travel planning and execution. In all policy options, the sharing of non-personal data (PM7) with public transport authorities will facilitate improved management of transport services, allowing tourists to easily connect between various modes of transport. This harmonisation is essential for creating an interconnected transport network that enhances fluid transfers between travel modes. In PO2, PO3 and PO4, the introduction of a sharing obligation (PM13) will empower MDMS platforms to offer broader access to diverse transport services, enabling tourists to book integrated and greener travel itineraries with ease. In PO3, the hosting obligation (PM14) further strengthens service integration by ensuring that indispensable RU platforms foster rail services, facilitating a seamless booking experience for travellers wishing to undertake rail journeys. PM14 enhances the ability of the most popular rail platforms to present tourists with unified travel solutions that cater for their specific needs. Therefore, PO3 contributes most to the development of a user-centric travel ecosystem that enhances accessibility, convenience, and efficiency for tourists.

6.1.12. Territorial impacts

All policy options are expected to strengthen territorial cohesion by creating a more inclusive and integrated multimodal transport system across all EU regions. Central to this are measures designed to ensure fair access and visibility for transport operators of all sizes. In all policy options, the obligation for MDMS platforms to ensure neutral display of transport offers (PM1) guarantees that all operators, including those in peripheral or less-connected areas, receive equal visibility alongside larger providers. In PO2 and PO3, additional measures significantly enhance territorial cohesion. The obligation to share tickets for indispensable RUs (including cross-border and PSO services) is expected to improve the connectivity (PM13). Most importantly, the access to indispensable RU platforms (PM14) in PO3 guarantees that even smaller regional providers can be integrated into major booking platforms. PO3 is therefore expected to have the highest impact on territorial cohesion and create a transport system where all regions, from major cities to remote areas, have equal opportunity to participate in the digital mobility market. This balanced approach supports economic development across all territories while preventing the concentration of mobility services in already well-connected areas.

6.2. Social impacts

6.2.1. Impacts on health

All policy options are projected to have a positive impact on health, relative to the baseline, due to the higher use of more sustainable transport options. This is expected to result in reduced air pollutant emissions and subsequent positive impacts on health. These impacts are higher in PO2, PO3 and PO4, since the measures included in these policy options are specifically supporting access to rail offers. The savings in external costs of air pollutants, expressed as present value over 2028-2050 relative to the baseline, are estimated at EUR 455 million in PO2, EUR 670 million in PO3 and EUR 502 million in PO4. On the other hand, PO1 shows more limited savings in external costs of air pollutant emissions, estimated at EUR 218 million expressed as present

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value over 2028-2050 relative to the baseline[200].

Table 17: Impacts on external costs of air pollution emissions in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Savings in external costs of air pollutant emissions	218	455	670	502

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

6.2.2. Impacts on employment

All policy options are anticipated to positively affect employment, primarily by promoting the use of collective transport means, such as trains and coaches. This is expected to indirectly foster job creation within the transport sector. Notably, the impacts of PO2, PO3 and PO4 are expected to be higher than those of PO1, due to the higher increase in the use of collective transport means in these options relative to the baseline. The limited changes in the air transport activity relative to the baseline suggests that the overall employment in the air transport sector is likely to remain unchanged relative to the baseline. Moreover, the development and deployment of additional MDMS platforms will likely create further employment opportunities within the EU, as these new platforms will require skilled professionals for their implementation, maintenance, and management. Overall, all policy options have the potential to stimulate investment in innovation, as competition between MDMS platforms increases. This is expected to have a knock-on effect of potentially increasing employment levels as sectors adapt and evolve to incorporate new technological and service-based innovations. Increased investment in innovation often translates into the need for skilled professionals and personnel to understand, implement, and support these advancements.

6.2.3. Impacts on safety

In all policy options, the reduction in the passenger car transport activity induced by more offers and information available to users to make more sustainable choices, is expected to result in a decrease in the number of fatalities and injuries relative to the baseline. The decrease in the number of fatalities and injuries relative to the baseline is a direct result of the reduction in the passenger car transport activity and not affected by any other drivers in the assessment. Cumulatively over 2028-2050, PO1 is estimated to lead to 731 lives saved and 49 thousand injuries avoided, while PO2, PO3 and PO4 would have significantly higher positive impact (1,480 lives saved and close to 95 thousand injuries avoided in PO2, 2,113 lives saved and close to 137 thousand injuries avoided in PO3 and 1,616 lives saved and 107 thousand injuries avoided in PO4) with PO3 showing the highest positive impact. All policy options contribute towards **Sustainable Development Goal** SDG#9 ("Make cities and human settlements inclusive, safe, resilient and sustainable").

Table 18: Expected reduction in the number of fatalities and injuries in the POs relative to the baseline, in 2030, 2040 and 2050, and cumulative reduction over the period 2028-2050

	2030	2040	2050	Cumulative over 2028-2050	% change to baseline
Fatalities					
PO1	18	38	39	731	0.2%
PO2	33	76	84	1,480	0.4%
PO3	49	109	117	2,113	0.5%
PO4	36	83	92	1,616	0.4%
Injuries					
PO1	1,313	2,465	2,489	49,421	0.2%

[200] The impacts on air pollution emissions have been quantified with the help of the ASTRA model. The unit costs from the 2019 Handbook on external costs of transport (Handbook on the external costs of transport - Publications Office of the EU) have been used to monetise the external costs.

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	2030	2040	2050	Cumulative over 2028-2050	% change to baseline
PO2	2,211	4,748	5,232	94,945	0.5%
PO3	3,270	6,913	7,341	136,909	0.7%
PO4	2,484	5,367	5,929	107,317	0.5%

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

The reduction in external costs of accidents, expressed as present value over 2028-2050 relative to the baseline, is estimated to be the highest in PO3 (EUR 21.3 billion), followed by PO4 (EUR 16.5 billion), PO2 (EUR 14.8 billion) and PO1 (EUR 7.6 billion)[201].

Table 19: Impacts on external costs of accidents in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Savings in external costs of accidents	7,606	14,807	21,297	16,470

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

6.2.4. Impacts on fundamental rights

The level of data protection for businesses and consumers is a key element when considering the impacts of the policy options on fundamental rights. Data protection for B2C MDMS platform users is provided by the GDPR, which allows for harmonised protection of individuals. Also, for B2B MDMS, the entry into application of the GDPR is a key consideration prompting the revision and repeal of the CRS Code of Conduct´s rules on data protection in all policy options (PM5). As a result of this regulatory simplification, the duplication of rules will be removed and there would thus be no more room for potential inconsistencies. The intervention would not have any negative material impact on fundamental rights, and data protection specifically.

6.2.5. Impacts on youth

All policy options support the transformation of the transport systems in ways that resonate strongly with young Europeans, who are increasingly demanding sustainable, connected, and affordable mobility solutions. Central to this shift are key measures designed to align with youth needs, and in particular seamless travel experiences as reflected by POLIS in the targeted survey conducted in 2025[202]. A Eurobarometer conducted in 2024 shows youths give more importance to the environmental impact of their trips and adapt their journey more frequently but also indicate they cannot always afford more sustainable options. Youths more often search for information on multimodal or multi-operator trips and more often find suitable combinations, but they also indicate more often that they did not book the journey because they could not book all tickets in one place.[203] By ensuring access to all RU offers (PM13), PO2, PO3 and PO4 eliminate fragmented booking systems and can directly impact younger people[204]. Moreover, PO2, PO3 and PO4 expand access to multimodal and low-carbon options, directly addressing youth demand, as the Eurobarometer shows that use of trains and coaches is highest among respondents aged 15-24, used respectively by 68% and 48% of this age group. PO2, PO3 and PO4 particularly foster a transport system that mirrors youth values: digital-first, climate-

[201] The impacts on fatalities and injuries have been quantified with the help of the ASTRA model. The 2019 Handbook on the external costs of transport (Handbook on the external costs of transport - Publications Office of the EU) has been used to monetise the costs.

[202] POLIS underlined that younger groups use digital services more frequently and would therefore benefit the most from having better information and accessibility to tickets in a digital way.

[203] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024

[204] In the targeted survey, ALL RAIL underlined that the impact would likely be more immediate for younger passengers, who are more familiar with using MDMS platforms to search and book their trips. This group is particularly sensitive to fragmented offers and tends to compare options across operators. Making all services visible and bookable on the same platforms would improve their access to better prices and combinations, especially for regional and cross-border travel.

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conscious, and user-centric.

6.3. Environmental impacts

The analysis of environmental impacts covers tank-to-wheel CO_2 emissions, air pollutant emissions (particulate matter (PM2.5) and nitrogen oxides (NOx)) and noise emissions. The ASTRA model has been used to quantify the impact of the policy options on emissions, based on the modal shift each option is expected to achieve.

Impacts on CO_2 emissions. The use of more sustainable transport means, especially trains, is expected to reduce CO_2 emissions relative to the baseline. PO2, PO3 and PO4 are projected to achieve higher reductions in CO_2 emissions than PO1, with PO3 anticipated to deliver the highest decrease. PO1 results in relatively limited modal shift when compared to the other POs. Thus, the reduction in CO_2 emissions for PO1 is more limited and estimated at 8.3 million tonnes cumulatively over 2028-2050 relative to the baseline. PO3 results in the highest impact among the options, cumulatively over 2028-2050 relative to the baseline, estimated at 23.8 million tonnes, followed by PO4 (18.1 million tonnes) and PO2 (16.5 million tonnes). Cumulatively over 2028-2050, PO3 is expected to result in 0.5% reduction in CO_2 emissions relative to the baseline, PO4 and PO2 in 0.3% reduction and PO1 in 0.2% reduction. As shown in the table below, the reduction in CO_2 emissions relative to the baseline is projected to reduce over time in all policy options. This is because of the decarbonisation of the transport sector over time in the baseline. The savings in external costs of CO_2 emissions, expressed as present value over 2028-2050 relative to the baseline, are estimated to be highest in PO3 (EUR 6.8 billion), followed by PO4 (EUR 5.2 billion), PO2 (EUR 4.7 billion) and PO1 (EUR 2.4 billion)[205].

Impacts on air pollutant emissions. Similarly to CO_2 emissions, the reduction in air pollutant emissions is mainly driven by the higher use of more sustainable transport means and optimised trips. Cumulatively over 2028-2050, the highest reduction in NOx emissions relative to the baseline is projected in PO3 (23.9 thousand tonnes), followed by PO4 (17.9 thousand tonnes), PO2 (16.2 thousand tonnes) and PO1 (7.7 thousand tonnes). This represents a decrease by 0.2% relative to the baseline in PO3 and around 0.1% in PO4, PO2 and PO1. As for CO_2 emissions and NOx emissions, the highest reduction in particulate matter (PM2.5) emissions, cumulatively over 2028-2050, is estimated for PO3 (1.5 thousand tonnes), followed by PO4 (1.1 thousand tonnes), PO2 (1 thousand tonnes) and PO1 (0.4 thousand tonnes). Thus, the savings in external costs of air pollution emissions, expressed as present value over 2028-2050 relative to the baseline, are projected at EUR 218 million in PO1, EUR 455 million in PO2, EUR 670 million in PO3 and EUR 502 million in PO4[206].

Table 20: Impact on CO_2 emissions and air pollutant emissions (thousand tonnes of CO_2 emissions avoided and tonnes of NOx and PM2.5 avoided relative to the baseline in 2030, 2040 and 2050, and cumulative over 2028-2050; % change in cumulative CO_2 emissions and air pollution emissions relative to the baseline)

	2030	2040	2050	Cumulative over 2028-2050	% change to baseline
CO2 emissions (thousand tonnes of CO2 avoided)					
PO1	541	370	17	8,319	0.2%
PO2	992	761	37	16,468	0.3%
PO3	1,458	1,106	52	23,794	0.5%
PO4	1,091	838	41	18,148	0.3%
NOx emissions (tonnes of NOx avoided)					
PO1	485	377	93	7,727	0.1%
PO2	986	749	194	16,221	0.1%

[205] The unit costs from the 2019 Handbook on external costs of transport (Handbook on the external costs of transport - Publications Office of the EU (europa.eu)) have been used to monetise the external costs.
[206] The unit costs from the 2019 Handbook on external costs of transport (Handbook on the external costs of transport - Publications Office of the EU (europa.eu)) have been used to monetise the external costs.

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	2030	2040	2050	Cumulative over 2028-2050	% change to baseline
PO3	1,532	1,142	271	23,929	0.2%
PO4	1,097	833	212	17,911	0.1%
PM2.5 emissions (tonnes of PM avoided)					
PO1	27	19	4	437	0.1%
PO2	57	43	12	980	0.2%
PO3	89	65	19	1,498	0.2%
PO4	63	47	13	1,080	0.2%

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

Impacts on external costs of noise emissions. The savings in external costs of noise emissions, expressed as present value over 2028-2050 relative to the baseline, are also estimated to be highest in PO3 (EUR 2.1 billion), followed by PO4 (EUR 1.7 billion), PO2 (EUR 1.5 billion) and PO1 (EUR 0.7 billion)[207].

Table 21: Impacts on external costs of CO2 emissions, air pollution emissions and noise emissions in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Savings in external costs of CO_2 emissions	2,367	4,696	6,778	5,176
Savings in external costs of air pollution emissions	218	455	670	502
Savings in external costs of noise emissions	735	1,509	2,146	1,663

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model

All policy options are consistent with the environmental objectives of the **European Green Deal** and the **European Climate Law**[208]. All policy options contribute towards **Sustainable Development Goal** SDG#13 ("Climate Action") and SDG#3 ("Ensure healthy lives and promote wellbeing for all at all ages", including target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.). **No significant harm** is expected on the environment in any of the policy options.

6.4. Summary of the economic, social and environmental impacts

The table below provides a summary of the comparison of the options against the baseline scenario in terms of economic, social and environmental impacts. The following ranking symbols have been used: from '0' (no impact relative to the baseline), to '+' (more positive than the baseline) and '+++' (much more positive than the baseline).

Table 22: Comparison of options in terms of economic, social and environmental impacts relative to the baseline

	PO1	PO2	PO3	PO4
Economic impacts	+	++	++/+++	++
MDMS platforms (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	-	+	+	--
Adjustment costs	92.9	127.7	122.3	282.3
Administrative costs	0.5	0.5	0.5	0.5
Adjustment cost savings	13.0	149.0	134.0	142.7
Net costs (-) or net benefits (+) for MDMS platforms	-80.4	20.9	11.3	-140.0
Transport operators (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	+	++	++	++

[207] The unit costs from the 2019 Handbook on external costs of transport (Handbook on the external costs of transport - Publications Office of the EU (europa.eu)) have been used to monetise the external costs.
[208] Regulation (EU) 2021/1119 establishing the framework for achieving climate neutrality.

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	PO1	PO2	PO3	PO4
Adjustment costs	0.0	48.2	42.2	45.2
Administrative costs	0.001	0.001	0.001	0.001
Adjustment cost savings	13.0	149.0	134.0	142.7
Net benefits for transport operators	13.0	100.9	91.8	97.6
National authorities in EUR million, expressed as present value over 2028-2050 relative to the baseline)	--	--	--	--
Enforcement costs	106.5	106.5	106.5	106.5
Administrative costs	28.9	28.9	28.9	28.9
Net costs for national authorities	135.4	135.4	135.4	135.4
European Commission (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	-	-	-	-
Adjustment costs	5.3	5.3	5.3	5.3
Net costs for European Commission	5.3	5.3	5.3	5.3
Impacts on SMEs* (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	+	++	++	++
Adjustment cost savings for SME MDMS platforms	9.2	101.0	90.5	95.7
Net benefits for SME MDMS platforms	9.2	101.0	90.5	95.7
Adjustment cost savings for SME transport operators	9.4	107.0	96.1	102.5
Net benefits for SME transport operators	9.4	107.0	96.1	102.5
Impacts on user costs and congestion (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	++	++	+++	+++
Savings in external costs of road congestion	1,758	4,352	6,438	4,833
Impacts on competitiveness	+	++	++	++
Impact on the functioning of the internal market and competition	+	++	++	++
Impact on innovation	+	++	+++	++
Digital by default	++	++	++	++
Impact on tourism	+	++	+++	++
Territorial impacts	+	++	+++	++
Social impacts	+	++	++/+++	++
Impacts on health (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	+	++	+++	++
Savings in external costs of air pollutant emissions	218	455	670	502
Impacts on employment	+	++	++	++
Impact on safety	+	++	+++	++
Fatalities reduction (number of lives saved, cumulative over 2028-2050 relative to the baseline)	731	1,480	2,113	1,616
Injuries reduction (number of injuries avoided, cumulative over 2028-2050 relative to the baseline)	49,421	94,945	136,909	107,317
Impacts on fundamental rights	+	+	+	+
Impacts on youth	+	++	++	++
Environmental impacts	+	++	++/+++	++
CO2 emissions saved (in million tonnes, cumulative over 2028-2050 relative to the baseline)	8.3	16.5	23.8	18.1
Air pollutant emissions saved (in thousand tonnes, cumulative over 2028-2050 relative to the baseline)	7.7 (NOx) 0.4 (PM2.5)	16.2 (NOx) 1 (PM2.5)	23.9 (NOx) 1.5 (PM2.5)	17.9 (NOx) 1.1 (PM2.5)
Savings in external costs of noise emissions (in EUR million, expressed as present value over 2028-2050 relative to the baseline)	735	1,509	2,146	1,663

*Note: *Impacts on SMEs overlap with impacts on MDMS platforms and transport operators. This is because part of MDMS platforms and transport operators are SMEs.*

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7. HOW DO THE OPTIONS COMPARE?

7.1. Effectiveness

The assessment of effectiveness looks at the extent to which the policy options meet the general and specific objectives (SO) of the intervention. Table 23 presents the link between the policy objectives and the assessment criteria.

Table 23: Link between objectives and assessment criteria

General objectives	Specific objectives	Assessment criteria
GO1 – Promote rail single ticketing for multi-operator journeys and thereby enhance attractiveness of rail to increase sustainability of the transport system and support modal shift **GO2** – Better functioning of the ticket distribution market, contributing to the competitiveness and the functioning of the transport services market	**SO1** – Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS	- Increase in the number of agreements between platforms and transport operators indicating a better functioning of the distribution markets (B2B and B2C) - Decrease in average expenditure per person for interurban mobility, due to increase in competition resulting from better access and use of indispensable MDMS for transport operators
	SO2 – Improve completeness of rail offer on MDMS platforms, including indispensable RU platforms	- Increase in the transport activity by rail due to better visibility and access to these services

Overall, all policy options are expected to contribute to the general objectives of **promoting rail single ticketing for multi-operator journeys** and **better functioning of the online ticket distribution market** although to various degrees.

Concerning SO1 (*Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS)*, the number of agreements between MDMS platforms and transport operators compared to the baseline can provide a relevant indication of the extent to which operators are integrated on indispensable MDMS platforms (both B2B and B2C). All policy options show an increase in the number of agreements between platforms and transport operators in the period 2030-2050. PO2 shows the highest increase relative to the baseline in 2030 and 2040 (42% increase in 2030 and 125% in 2040), followed by PO4 (41% increase in 2030 and 117% increase in 2040) and PO3 (40% increase in 2030 and 110% increase in 2040). In 2050, PO2, PO3 and PO4 show similar increase in the number of agreements relative to the baseline (97% increase). The contribution of PO1 towards SO1 is much more limited (3% increase in 2030, 11% increase in 2040 and 5% in 2050). In addition, the decrease in the average expenditure per person for interurban mobility can reflect an increase in competition resulting from better access and use of indispensable MDMS and indispensable RU platforms for transport operators. PO3 shows the highest decrease in the average expenditure per person compared to the baseline (0.06% in 2030 and 0.34% in 2050), followed by PO4 (0.04% decrease in 2030 and 0.28% in 2050) and PO2 (0.03% decrease in 2030 and 0.24% in 2050). PO1 shows limited impacts (0.01% decrease in 2030 and 0.05% in 2050). Thus, PO2, PO3 and PO4 contribute significantly towards SO1, while the contribution of PO1 is more limited.

Concerning SO2 (*Improve completeness of rail offer on MDMS platforms, including indispensable RU platforms*), the increase in the transport activity by rail, compared to the baseline, can serve as a meaningful indicator of passengers' ability to find, compare, and purchase rail tickets. PO3 shows the highest contribution towards SO2 with a 2.5% increase in transport activity by rail in 2030, and 4.8% in 2050, relative to the baseline. The combined effect of the obligation for indispensable RU platforms to integrate requesting operators (PM14) with the obligation for indispensable RUs to share their tickets (PM13), only included in

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PO3 can explain this result. The sharing obligation is necessary to allow platforms to create a complete overview of the rail services offer for passengers – in terms of both connections and fares – to sell tickets and to combine tickets of different operators into single journeys. Such complete ticketing offer is likely to materialise on independent platforms, whose business model is to sell their services to any RU and attract as many users as possible. Incumbent platforms, on the other hand, could already host a larger number of operators, but decide not to do so and are unlikely to change their behaviour because of the sharing obligation. In this context, if passengers were able to easily compare the platforms' offers and detect which ones are incomplete and what is missing; if they were willing to modify their purchasing habits; and if they were ready to trust the reliability and security of alternative online distribution services, the sharing obligation would go a long way towards providing passengers with a satisfactory solution. However, in most Member States, notwithstanding the presence of independent platforms, the platform owned by the incumbent RU is still the go-to platform for passengers wishing to buy a ticket. Where these websites sell tickets of some other companies, but not all, it is difficult for passengers to see that they are being presented with an incomplete offer, making it unlikely that passengers would switch to another platform. Even if the use of AI tools would help passengers in revealing more convenient offers, habits are not easily changed and confidence in alternative purchasing channels is not easily established. Against this background, it is unlikely that third-party platforms would quickly gain the necessary size to challenge the role of the incumbent platform and to be able to offer a meaningful alternative to RUs wishing to have their tickets distributed. Whilst the sharing obligation will support the longer-term development of independent ticketing platforms, the hosting obligation is important to ensure that passengers and new entrant operators can already find the intermediation services they need in the short-term.

In PO4 and PO2 the impacts are more limited (1.9% increase in the transport activity by rail in 2030 and 4% in 2050 relative to the baseline in PO4; and 1.7% increase in the transport activity by rail in 2030 and 3.7% in 2050 relative to the baseline in PO2) and thus also the contribution towards SO2. PO1 shows limited impact (1% increase in the transport activity by rail in 2030 and 1.8% in 2050 relative to the baseline) and thus contribution towards SO2.

To conclude, PO3 is the most effective option, since it achieves not only a higher modal shift than PO2 by about 30% by 2050, but is expected to achieve a 40% higher modal shift than PO2 by 2030 bringing not only more benefit, but also attaining them earlier in time.

7.2. Efficiency

Efficiency concerns the 'extent to which objectives can be achieved for a given cost (cost effectiveness)'. The costs and benefits in this section are presented in two alternative ways: excluding external costs savings and including external costs savings due to modal shift. This approach is used for acknowledging the uncertainty related to the estimated modal shift. It should however be noted that excluding external costs savings represents an extremely conservative approach. As indicated in section 6.1.6, modal shift is largely induced by the various type of savings that consumers might be able to achieve thanks to the policy measures: less time spent on search engines, shorter travel time thanks to better travel connections and more convenient fares. These combined savings make railways a comparatively more attractive option than other modes. Because of the uncertain quantification of these savings, a choice was made of providing a qualitative assessment, but not a quantified estimate. Accordingly, only the external cost savings of the modal shift were quantified, or, in other words only the benefits to society but not those to individual users. This already produces a very conservative estimate and likely underestimation of the benefits from modal shift. In addition, sensitivity analysis regarding the potential modal shift has been performed and it is presented in section 7.6.

The estimates of costs and benefits excluding external costs savings are summarised in Table 24.

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Table 24: Summary of costs and benefits of policy options, excluding external costs savings - present value over 2028-2050 compared to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
MDMS platforms				
Adjustment costs	92.9	127.7	122.3	282.3
Administrative costs	0.5	0.5	0.5	0.5
Adjustment cost savings	13.0	149.0	134.0	142.7
Transport operators				
Adjustment costs	0.0	48.2	42.2	45.2
Administrative costs	0.001	0.001	0.001	0.001
Adjustment cost savings	13.0	149.0	134.0	142.7
European Commission				
Adjustment costs	5.3	5.3	5.3	5.3
National authorities				
Enforcement cost	106.5	106.5	106.5	106.5
Administrative costs	28.9	28.9	28.9	28.9
Total costs	**234**	**317**	**306**	**469**
Total benefits	**26**	**298**	**268**	**285**
Net costs	**208**	**19**	**38**	**183**
Benefits to costs ratio	**0.1**	**0.9**	**0.9**	**0.6**

Source: Ricardo et al. (2026), Impact assessment support study

Total costs are projected to be the lowest in PO1, estimated at EUR 234 million expressed as present value over 2028-2050 relative to the baseline, followed by PO3 (EUR 306 million) and PO2 (EUR 317 million). PO4 presents significantly higher costs, estimated at EUR 469 million relative to the baseline, due to the introduction of the unbundling obligation (PM15). Adjustment costs for MDMS platforms represent 40% of the total costs in PO1, PO2 and PO3 and 60% in PO4 (due to the unbundling obligation). Of these, the costs for setting up and maintaining an API by B2C MDMS platforms to share non-personal data for mobility management with public authorities (PM7) represent 23% of the total costs in PO1, PO2 and PO3, and 15% in PO4. Enforcement costs for national authorities, for monitoring the online ticketing market for potential entities with SMP as well as the correct implementation of the legislation, represent another 45% of the total costs in PO1, 34% in PO2, 35% in PO3 and 23% in PO4. In addition, administrative costs for national authorities, for the designation of indispensable MDMS platforms and RUs represent 12% of the total costs in PO1, 9% in PO2 and in PO3, and 6% in PO4. Other significant share of total costs in PO2, PO3 and PO4 relates to adjustment costs associated to the obligation to share (PM13), representing 15% of the total costs in PO2, 14% in PO3 and 10% in PO4.

When excluding external costs savings, the estimated total benefits are linked to the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties that are expected to streamline the negotiation processes. PO1 shows the lowest total benefits estimated at EUR 26 million relative to the baseline (expressed as present value over 2028-2050). PO2, PO3 and PO4 show significantly higher benefits (EUR 298 million in PO2, EUR 268 million in PO3 and EUR 285 million in PO4).

Excluding external costs savings, all policy options are projected to result in net costs relative to the baseline. The net costs are estimated at EUR 208 million in PO1 relative to the baseline, expressed as present value over 2028-2050, at EUR 19 million in PO2, EUR 38 million in PO3 and EUR 183 million in PO4. **PO2 and PO3 show the highest benefits to costs ratio (0.9), followed by PO4 (0.6) and PO1 (0.6).** However, as indicated, above, the policy options are also expected to generate significant benefits for consumers by reducing search costs and fostering greater competition in both the platform and transport markets. By enabling travellers to find, compare, and purchase tickets in a single location, the policy options would eliminate the need to conduct lengthy searches across multiple platforms. This simplification of the purchasing

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process enhances convenience, transparency, and efficiency for consumers. Although not possible to quantify, the overall impact on consumers' costs savings would be the strongest, as well as the quickest to materialise, in the case of PO3. PO4 would come second in terms of overall impact but its effects would unfold more gradually, due to the need to restructure the business of indispensable platforms following unbundling. PO2 would have a more moderate impact, since the cost reduction would be generated by the action of independent platforms that have a much smaller customer base, although this would grow in time. Finally, only a negligeable impact on user search cost savings can be expected to result from PO1, which would change the presentation, but not the scope of the ticketing offer on the platforms. **Taking into account the impacts on user search costs savings, that were not possible to quantify, the highest benefits to costs ratio among the policy options is thus expected to be achieved in PO3.**

When also considering the external costs savings (see Table 25), all policy options show significant **total benefits**, linked to external costs savings and the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties that are expected to streamline the negotiation processes. PO1 shows the lowest total benefits estimated at EUR 12.7 billion relative to the baseline (expressed as present value over 2028-2050). PO2, PO3 and PO4 show significantly higher benefits (EUR 26.1 billion in PO2, EUR 37.6 billion in PO3 and EUR 28.9 billion in PO4) mainly due to the higher reduction in external costs. PO3 achieves the highest reduction in external costs, as it is projected to result in a more significant shift towards rail and coach. External costs saving represent around 99% of the total benefits in all policy options.

Overall, when also considering the external costs savings, all policy options result in net benefits relative to the baseline. The net benefits are estimated at EUR 12.5 billion in PO1 relative to the baseline, expressed as present value over 2028-2050, at EUR 25.8 billion in PO2, EUR 37.3 billion in PO3 and EUR 28.5 billion in PO4. **PO3 shows the highest benefits to costs ratio (123), followed by PO2 (82), PO4 (62) and PO1 (54).** As explained above, the impacts on user search costs were not possible to quantify but they are expected to further reinforce the fact that PO3 shows the highest benefits to costs ratio among the options.

Table 25: Summary of costs and benefits of policy options, including external costs savings - present value over 2028-2050 compared to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	**PO2**	**PO3**	**PO4**
MDMS platforms				
Adjustment costs	92.9	127.7	122.3	282.3
Administrative costs	0.5	0.5	0.5	0.5
Adjustment cost savings	13.0	149.0	134.0	142.7
Transport operators				
Adjustment costs	0.0	48.2	42.2	45.2
Administrative costs	0.001	0.001	0.001	0.001
Adjustment cost savings	13.0	149.0	134.0	142.7
European Commission				
Adjustment costs	5.3	5.3	5.3	5.3
National authorities				
Enforcement cost	106.5	106.5	106.5	106.5
Administrative costs	28.9	28.9	28.9	28.9
External cost savings	**12,685**	**25,820**	**37,329**	**28,644**
CO_2 emissions	2,367	4,696	6,778	5,176
Air pollutants	218	455	670	502
Fatalities and injuries	7,606	14,807	21,297	16,470
Road congestion	1,758	4,352	6,438	4,833
Noise	735	1,509	2,146	1,663
Total costs	**234**	**317**	**306**	**469**
Total benefits	**12,711**	**26,118**	**37,597**	**28,930**

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	Difference to baseline			
	PO1	PO2	PO3	PO4
Net benefits	**12,477**	**25,801**	**37,291**	**28,461**
Benefits to costs ratio	**54**	**82**	**123**	**62**

Source: Ricardo et al. (2026), Impact assessment support study

7.3. Coherence

Internal coherence assesses how various elements of the policy options function together to achieve the objectives. All policy options address the identified specific objectives and underlying problem drivers and ensure internal coherence. They do so however to a different extent, and via various levels of intervention. PO1 leaves more flexibility but still includes measures to ensure fair and neutral display of data, as well as rules on commercial agreements for indispensable MDMS and RUs. While PO1 is expected to support the development of a more comprehensive multimodal market, it does not provide transport operators access to indispensable RU platforms (included in SO1) and does not improve completeness and transparency of information on all MDMS platforms (SO2) to the same extent as other POs. PO2 would enable access to a complete rail offer on independent platforms, currently holding an estimated 3% distribution market share in the EU. PO3 would enable travellers to find, compare, combine and purchase rail and multimodal tickets seamlessly also on the incumbent platforms, which hold a much larger market share. This would generate a larger shift towards greener travel options, as shown in section 6.3. While PO4 provides an alternative that also fulfils all specific objectives it mandates indispensable RUs to unbundle their distribution and operational services resulting in significantly higher costs, as described in section 6.4.

External coherence all policy options demonstrate strong external coherence with the existing EU and national policy frameworks (identified in section 1.3), ensuring alignment with broader transport, digital, and consumer protection objectives while avoiding regulatory overlaps or contradictions. All policy options have been designed to complement and reinforce key EU instruments, such as the ITS Directive[209] and its Delegated Regulation on MMTIS[210], fostering the development of multimodal travel information services. All policy options also align with horizontal digital policies such as the DSA[211] (especially its Article 27) which reinforce transparency in ranking algorithms, a principle further strengthened by the neutrality requirements for MDMS platforms. In addition, all policy options complement the DMA[212], by applying similar requirements to gatekeeping transport ticketing platforms that are not covered by the DMA. All POs will be further supported by other EU instruments such as the AI Act, complementing action of all POs by imposing rules on AI systems used by MDMS platforms when displaying targeted offers to consumer needs, and therefore ensuring safety and transparency of MDMS platforms' algorithms. Similarly, the upcoming Digital Fairness Act will complement all POs by preventing problematic practices in online spaces, such as MDMS platforms, by prohibiting the use of dark patterns or addictive design of platform algorithms.

PO2, PO3 and PO4 however better address the issue of access to real-time fare data, a critical component for seamless ticketing in rail and are thus more coherent with a sustainable and prosperous Union, one of the key political objectives of the European Commission for the 2024-2029 mandate. The analysis underlines that whilst some measures mandate contractual agreements, the overarching objective to ensure that passengers can access a complete mobility offer can justify the interference in the freedom to conduct business as long as it contributes to increasing multimodality and support the development of a SERA, without imposing undue burdens.

[209] OJ L, 2023/2661
[210] OJ L, 2024/490
[211] OJ L 277, 27.10.2022, pp. 1–102
[212] OJ L 265, 12.10.2022, pp. 1–66

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7.4. Subsidiarity and proportionality

EU level action can be justified from the perspective of **subsidiarity** for a number of reasons, including if the objectives of the proposed action cannot be sufficiently achieved by the Member States acting on their own and/or if the action can be implemented more successfully at the EU level. For the policy options under assessment, both of these points apply. While MDMS services can be developed at regional or national level, the continuity of the EU transport system requires an EU-wide approach, particularly in rail. With RUs benefiting from longstanding operational monopolies extending into their distribution networks, the European rail ticketing market is particularly fragmented, proposing inconsistent rail service offerings across Member States. This creates barriers to seamless international travel and limits the effectiveness of multimodal transport solutions. EU-level intervention can help overcome these obstacles by harmonising data-sharing practices and fostering competition.

All POs are in line with the principle of subsidiarity, although the rules mandating parties to enter into commercial agreements included in PO2, PO3 and PO4, and the unbundling obligation included in PO4 mean that these are more likely to deliver the objectives of the initiative than PO1 (which is not expected to fundamentally increase the number of commercial agreements between parties, and therefore allow for a more comprehensive transport offer on platforms).

All policy options comply with the principle of **proportionality.** PO1 takes a light touch approach to address the three specific objectives and therefore does not risk be considered disproportionate. PO2 introduces a sharing obligation fostering access to a complete rail offer on independent platforms. This is a more stringent measure which is however only imposed on RUs dominating the operational services market as illustrated in All incumbent RUs (except in PL, see ***Error! Not a valid bookmark self-reference.***) have Significant Market Presence (SMP) in the national transport service market, i.e. a market share above 50% in terms of passenger kilometres. All of them also have one or more digital ticket sales channels, 19 of which are MDMS platforms as they also sell tickets of other RUs or operators in other modes, while only 6 sell their own tickets and are greyed out in the chart. The platforms owned by incumbent RUs have a very large customer base and are the standard reference for rail ticket customers. National competition authorities and economic studies consistently show that the vast majority of consumer searches and online ticket sales are concentrated on the RUs with SMP's proprietary digital channels (websites and mobile applications), while third-party ticketing platforms account for only a limited share of transactions. For example, the 2021 report of the Monopolkommission shows that among major online platforms for long-distance rail tickets in Germany, about 90% of website visits go to Bahn.de, indicating DB's dominant position in online distribution markets. This renders the incumbent platforms an indispensable distribution channel for any rail operator offering transport services in the respective national market. This is particularly the case of platforms that sell tickets of multiple RUs, as customers may not realise that their offer is incomplete and are thus less likely to make alternative searches. On the other hand, when it is clear for customers that they must look elsewhere to access tickets of competing RUs, they are more likely to use competitors' or independent platforms. Accordingly, in the rest of this document, the ticketing platforms owned by incumbent RUs (the 19 in blue in Figure 4) are referred to as 'indispensable RU platforms', but not when they do not sell third party tickets (the 6 in grey in Figure 4).

Figure 4. One-off costs for the connection to relevant IT systems will be borne by requesting platforms and commission fees (to be paid by the RU to the platform) only arise when tickets are sold. The costs for RUs are thus kept to the necessary minimum. The sharing obligation is necessary because a significant part of RUs have few incentives to sell a complete offer of tickets via third parties, especially when they reserve some offers for the clients of their vertically integrated platform or when the focus of their business is on local passengers mostly reached through their own distribution channels. PO3 further increases the availability of rail tickets for passengers by introducing a hosting obligation on indispensable RU platforms justified by the SMP these platforms enjoy through the vertical integration with a RU dominant in the operational services

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market. The hosting obligation only applies to companies that are already active in distributing tickets of other companies. Such platforms would be required to offer the same kind of service, in a non-discriminatory fashion, to other requesting operators in the same Member State. The hosting obligation thus does not require a change in business model. This targeted intervention is proportionate to the policy objectives, addressing a clear market failure where indispensable RU platforms dominate both rail operations and distribution, thereby restricting competition and consumer choice. The measure is necessary because voluntary approaches have failed to deliver seamless multimodal access: vertically integrated platforms see themselves primarily as rail operators, more interested in limiting competition on the railway services market than in expanding their business in the platform market. PO3 strikes a balance by leveraging existing passenger gateways – requiring indispensable RU platforms to host third-party tickets – without imposing organisational separation. This ensures consumers enjoy easy access to rail and multimodal tickets, competitors face a level playing field and indispensable RUs retain their dominant platforms but cannot exclude competing railway undertakings. PO3 complies with EU proportionality principles, being suitable, necessary, and non-excessive in achieving its goals. Thus, it represents a measured, effective solution aligned with SERA and EU transport policy objectives. PO4 possibly goes somewhat beyond what is necessary to reach the objectives by requiring rail incumbents to unbundle their distribution and operational services, which would result in much higher costs.

7.5. Summary of the effectiveness, efficiency, coherence, subsidiarity and proportionality

The table below provides a summary of the comparison of the options against the baseline scenario in terms of effectiveness, efficiency, coherence, subsidiarity, and proportionality. The following ranking symbols have been used: from '+' (more effective/efficient/coherent/proportionate than the baseline) to '+++' (much more effective/efficient/coherent/proportionate than the baseline).

Table 26: Comparison of options in terms of effectiveness, efficiency, coherence, subsidiarity and proportionality relative to the baseline (from + to +++)

Criterion	PO1	PO2	PO3	PO4
EFFECTIVENESS	+	++	+++	++
SO1: Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS				
% increase in the number of agreements between platforms and transport operators relative to the baseline, indicating a better functioning of the online distribution markets	3% increase in 2030, 11% increase in 2040 and 5% increase in 2050 relative to the baseline	42% increase in 2030, 125% increase in 2040 and 97% increase in 2050 relative to the baseline	40% increase in 2030, 110% increase in 2040 and 97% increase in 2050 relative to the baseline	41% increase in 2030, 117% increase in 2040 and 97% increase in 2050 relative to the baseline
% decrease in average expenditure per person for interurban mobility relative to the baseline, due to an increase in competition resulting from better access and use of indispensable MDMS and indispensable RU platforms for transport operators	0.01% decrease in 2030 and 0.05% decrease in 2050 relative to the baseline	0.03% decrease in 2030 and 0.24% decrease in 2050 relative to the baseline	0.06% decrease in 2030 and 0.34% decrease in 2050 relative to the baseline	0.04% decrease in 2030 and 0.28% decrease in 2050 relative to the baseline
SO2: Improve completeness of rail offer on MDMS platforms, including indispensable RU platforms				
% increase in the transport activity by rail, relative to the baseline, due to better	1% increase in transport activity by rail in 2030 and 1.8% increase in	1.7% increase in transport activity by rail in 2030 and 3.7% increase in	2.5% increase in transport activity by rail in 2030 and 4.8% increase in	1.9% increase in transport activity by rail in 2030 and 4% increase in

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Criterion	PO1	PO2	PO3	PO4
visibility and access to these services	2050 relative to the baseline	2050 relative to the baseline	2050 relative to the baseline	2050 relative to the baseline
EFFICIENCY	+	++	+++	++
Benefit to cost ratio, excluding external costs savings*	**0.1**	**0.9**	**0.9**	**0.6**
Benefit to cost ratio, including external costs savings	**54**	**82**	**123**	**62**
COHERENCE	++	++	++	++
SUBSIDIARITY and PROPORTIONALITY	++	++	++	+

Note: Although not possible to quantify, the overall impact on consumers' costs savings would be the strongest, as well as the quickest to materialise, in the case of PO3. PO4 would come second in terms of overall impact and but its effects would unfold more gradually, due to the need to restructure the business of indispensable platforms following unbundling. PO2 would have a more moderate impact, since the cost reduction would be generated by the action of independent platforms that have a smaller customer base, although this would grow in time. Finally, only a negligeable impact on user search cost savings can be expected to result from PO1, which would change the presentation, but not the scope of the ticketing offer on the platforms. Taking into account the impacts on user search costs savings, that were not possible to quantify, the highest benefits to costs ratio among the policy options is thus expected to be achieved in PO3.

7.6. Sensitivity analysis

As explained in the introduction to section 6, during the expert workshop and the stakeholders' workshop used to validate the inputs used in the ASTRA model, participants indicated the difficulty to derive a modal shift potential linked to the ability to see all offerings on an MDMS platform and the ability to book all visible travel options on an MDMS platform, since there have been little relevant applications of similar initiatives that could allow to deduct lessons. To acknowledge the uncertainty and test the robustness of the results, sensitivity analysis has been performed on the potential modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms. In addition, sensitivity analysis has been performed on the thresholds to identify B2C MDMS platforms and RUs with SMP, as further explained below.

Sensitivity analysis on the potential modal shift. A 'low modal shift' case has been assessed, assuming half of the potential identified for modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms. The impacts on external costs savings and efficiency (including external costs savings) are further compared to the 'base case' presented in section 6. More details are presented in section 4 of Annex 4.

The table below shows that this assumption has important impacts on the external costs savings in the 'low modal shift' case relative to the base case. Total external costs savings, expressed as present value over 2028-2050 relative to the baseline, are 34% lower in the 'low modal shift' case relative to the base case in PO1, 37% lower in PO2, 39% lower in PO3 and 37% lower in PO4.

Table 27: External costs savings in the 'low modal shift case' and base case in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	PO1	PO2	PO3	PO4
Base case				
Total external costs savings (in million EUR), of which:	**12,685**	**25,820**	**37,329**	**28,644**
CO_2 emissions	2,367	4,696	6,778	5,176
Air pollutant emissions	218	455	670	502

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	PO1	PO2	PO3	PO4
Fatalities and injuries	7,606	14,807	21,297	16,470
Road congestion	1,758	4,352	6,438	4,833
Noise emissions	735	1,509	2,146	1,663
Low modal shift case				
Total external costs savings (in million EUR), of which:	**8,379**	**16,255**	**22,698**	**17,949**
CO_2 emissions	1,566	2,975	4,137	3,264
Air pollutant emissions	139	274	389	301
Fatalities and injuries	4,928	9,421	13,087	10,421
Road congestion	1,252	2,616	3,761	2,902
Noise emissions	495	969	1,324	1,061
% change 'low modal shift' case relative to the base case				
Total external costs savings, of which:	-34%	-37%	-39%	-37%
CO_2 emissions	-34%	-37%	-39%	-37%
Air pollutant emissions	-37%	-40%	-42%	-40%
Fatalities and injuries	-35%	-36%	-39%	-37%
Road congestion	-29%	-40%	-42%	-40%
Noise emissions	-33%	-36%	-38%	-36%

Source: Ricardo et al. (2026), Impact assessment support study

Although this assumption has important impacts on the total external costs savings, it is expected to have no impact on other adjustment costs savings for MDMS platforms and transport operators and on the total costs. The table below presents the impacts on total benefits (including external costs savings), total costs, net benefits and benefits to costs ratio by policy option in the base case and 'low modal shift' case. It shows that all policy options are still expected to result in net benefits in the 'low modal shift' case considered. It also shows that the ranking of the policy options is not expected to change in the 'low modal shift' case relative to the base case estimates.

Table 28: Summary of costs and benefits of policy options, including external costs savings, in the 'low modal shift case' and base case, expressed as present value over 2028-2050 compared to the baseline (in million EUR, 2024 prices)

	PO1	PO2	PO3	PO4
Base case				
Total costs	234	317	306	469
Total benefits, of which:	12,711	26,118	37,597	28,930
Adjustment costs savings for MDMS platforms and transport operators	26	298	268	285
External costs savings	12,685	25,820	37,329	28,644
Net benefits	12,477	25,801	37,291	28,461
Benefits to costs ratio	54	82	123	62
Low modal shift case				
Total costs	234	317	306	469
Total benefits, of which:	8,405	16,553	22,966	18,234
Adjustment costs savings for MDMS platforms and transport operators	26	298	268	285
External costs savings	8,379	16,255	22,698	17,949
Net benefits	8,171	16,236	22,660	17,766
Benefits to costs ratio	36	52	75	39

Source: Ricardo et al. (2026), Impact assessment support study

Sensitivity analysis on the thresholds to identify B2C MDMS platforms and RUs with SMP. A 'low SMP threshold' case has been assessed, assuming that the EU level SMP threshold is lowered from 10% to

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5%. This would bring three additional OTAs into scope as indispensable MDMS (Etraveli group, Booking.com, Trip.com Group). The impacts on costs and costs savings are further compared to the base case presented in section 6.

The 'low SMP threshold' case results in three more platforms needing to submit information to national authorities (PM10), leading to some additional administrative costs (EUR 0.8 million one-off administrative costs in the 'low SMP threshold case' in all POs relative to EUR 0.5 million in the base case). It also requires more platforms to comply with commercial agreement rules for indispensable MDMS (PM11), leading to additional cost savings for MDMS platforms and transport operators relative to the base case (3% higher adjustment costs savings in PO1 and 6% higher adjustment costs savings in PO2, PO3 and PO4 relative to the base case, expressed as present value over 2028-2050) as shown in the table below.

Table 29: Administrative costs and adjustment costs savings for MDMS platforms and transport operators due to PM10 and PM11 in the 'low SMP threshold case' and base case in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	PO1	PO2	PO3	PO4
Base case				
MDMS platforms				
Administrative costs for the designation of indispensable MDMS and Rus (PM10)	0.5	0.5	0.5	0.5
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.0	136.1	122.3	130.4
Transport operators				
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.0	136.1	122.3	130.4
Low SMP threshold case				
MDMS platforms				
Administrative costs for the designation of indispensable MDMS and Rus (PM10)	0.8	0.8	0.8	0.8
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.4	144.2	129.8	138.3
Transport operators				
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.4	144.2	129.8	138.3
% change 'low SMP threshold' case relative to the base case				
MDMS platforms				
Administrative costs for the designation of indispensable MDMS and Rus (PM10)	75%	75%	75%	75%
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	3%	6%	6%	6%
Transport operators				
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	3%	6%	6%	6%

Source: Ricardo et al. (2026), Impact assessment support study

The table below shows the impacts on total benefits (including external costs savings), total costs, net benefits and benefits to costs ratio by policy option in the base case and 'low SMP threshold' case. It shows that all policy options are still expected to result in net benefits in the 'low SMP threshold' case considered. It also shows that the ranking of the policy options is not expected to change in the 'low SMP threshold' case relative to the base case estimates.

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Table 30: Summary of costs and benefits of policy options, including external costs savings, in the 'low SMP threshold case' and base case, expressed as present value over 2028-2050 compared to the baseline (in million EUR, 2024 prices)

	PO1	PO2	PO3	PO4
Base case				
Total costs	234.1	317.0	305.6	468.6
Total benefits	12,710.7	26,117.9	37,596.7	28,929.8
Net benefits	12,476.7	25,800.9	37,291.1	28,461.3
Benefits to costs ratio	54.3	82.4	123.0	61.7
Low SMP threshold case				
Total costs	234.4	317.3	306.0	468.9
Total benefits	12,711.5	26,134.2	37,611.9	28,945.6
Net benefits	12,477.0	25,816.9	37,305.9	28,476.6
Benefits to costs ratio	54.2	82.4	122.9	61.7

Source: Ricardo et al. (2026), Impact assessment support study

8. PREFERRED OPTION

8.1. Identification of the preferred policy option and stakeholder views

All policy options address the problems identified, their drivers and the specific objectives. However, some options are more effective in achieving the specific and general objectives than others. As explained in section 7.1 and shown in section 7.5, PO3 is the most **effective** policy option in reaching the policy objectives. PO2 and PO4 also contribute significantly to the policy objectives, while PO1 shows a more limited contribution. PO3 is also the most **efficient** of the four policy options as it presents the highest benefits to costs ratio (0.9 excluding external costs savings[213] and 123 including external costs savings).

All policy options examined in this impact assessment demonstrate **internal coherence**, aligning with the overarching objectives of promoting fair competition, enhancing consumer choice, and ensuring seamless access to multimodal travel information and ticketing. PO3 enables travellers to search, compare, combine, and purchase rail and multimodal tickets seamlessly, including on indispensable RU platforms that dominate the market. By integrating these functionalities into existing high market share platforms, this option maximises consumer reach while ensuring compliance with fairness and transparency requirements. It strikes a balance between market-led innovation and regulatory oversight, reducing fragmentation in the ticketing system. Each option has been designed to ensure full **external coherence** and seek synergies with existing EU legislation while addressing identified gaps in the current framework.

All options respect the **subsidiarity** principle, contributing to harmonising the legal framework and fostering cross-border ticketing platforms, albeit at different levels of ambition, with PO3 allowing for a higher level of competition in the rail distribution market. With respect to **proportionality**, PO3 achieves best the objectives of the initiative. PO3 is much more effective than PO2 since the addition of the 'hosting obligation' increases very substantially the number of passengers who benefit from the policy measures and the market impact of the proposal. On the other hand, the hosting obligation does not impose a change in the business model of the indispensable platforms, nor would it negatively affect their business. The hosting obligation only imposes open access and non-discriminatory treatment of the client RUs, which is a proportionate requirement for entities with such high market share. PO4 has similar results to PO3, but at the higher cost of the unbundling and organisational restructuring of vertically integrated entities. Although all policy options comply with the principle of proportionality, PO4 possibly goes somewhat beyond what is necessary to reach the objectives.

[213] Excluding external costs savings, PO2 and PO3 both result in a benefit to cost ratio of 0.9. However, although not possible to quantify, the overall impact on consumers' costs savings would be the strongest, as well as the quickest to materialise, in the case of PO3. Therefore, also when excluding the external costs savings PO3 is expected to be the most efficient of the four options.

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The analysis above identifies PO3 as the preferred policy option.

Stakeholders' views on the preferred policy option were collected via many stakeholder consultations activities, as detailed in Annex 2. The common policy measures assessed in the OPC were welcomed by most respondents but received less support in the targeted survey conducted in 2025, with MDMS platforms representing the most sceptical group. In particular, MDMS platforms perceived the introduction of commercial agreements rules for indispensable MDMS platforms and RUs platforms (PM11) as too restrictive and not targeting the right stakeholder group, claiming they would have no incentive to block access to their platform. Similarly, transport operators mostly disagreed with PM12, with indispensable RUs fearing that requirements on the level of distribution fees would distort the true value of services rendered and overlook the internal costs borne by transport operators. The sharing obligation (PM13) and the hosting obligation (PM14) have been supported in the targeted survey by most national authorities and 'Other' category, moderately supported by MDMS platforms and mostly opposed by transport operators. Some indispensable RUs argued that PM13 might create administrative burden and potentially increase ticket prices, whilst PM14 could increase market concentration. On the contrary, new entrants surveyed emphasized the need to regulate RUs operational and distribution branches, therefore supporting both PM13 and PM14. Specifically, PM14 was perceived by new entrant RUs as a game changer, potentially doubling the modal shift of rail for long-distance travel.

8.2. REFIT (simplification and improved efficiency)

While the initiative introduces a new obligation for Member States to designate indispensable MDMS platforms and to settle disputes between parties, the additional administrative burden for public authorities is kept to a minimum. The preferred policy option builds on the fact that Member States already have competent authorities responsible for resolving disputes in relevant areas, such as competition authorities, transport regulatory authorities, and rail regulators. Recurrent administrative costs for national authorities for settling disputes are estimated at EUR 1.53 million per year from 2028 onwards. In addition, one-off administrative costs for national authorities are expected in relation to the obligation to process notifications from platforms with SMP and submit this information to the Commission and are estimated at EUR 3.1 million. Expressed as annualised net present value, additional one-off administrative costs for national authorities amount to EUR 0.36 million.

8.3. Application of the 'one in, one out' approach

For the preferred policy option (PO3), two types of costs fall under the 'one in, one out' approach: one-off administrative costs for MDMS platforms and one-off administrative costs for transport operators. They are further described below. In addition, this section also reports on the one-off and recurrent administrative costs for national authorities, which fall under the broader scope of the *Calculator of Administrative Costs (AC) & Administrative Burdens (AB).*

Additional one-off administrative costs for MDMS platforms. As explained in section 6.1.1, MDMS platforms need to notify national authorities and/or the Commission upon reaching the SMP thresholds (PM10). Building on the Impact Assessment of the DMA[214], the assumption retained for calculating the cost incurred on MDMS platforms is that only two full time equivalents (FTEs) would be needed to comply with the requirement. This is because only one quantitative indicator is requested, and no further qualitative information is asked to support the decision. The administrative burden is kept to the minimum since the designation process leverages on information already submitted through the Rail Market Monitoring Scheme. In this context, RUs must provide information that can support the designation process as MDMS platforms with SMP. Four MDMS platforms are expected to reach the SMP thresholds in 2028 (the assumed year of

[214] SWD(2020) 363 final. The Digital Market Act assumed 20 FTEs per 'Gatekeeper' for submission of relevant data to authorities. In this case, the entities are much smaller than those regulated under the DMA (Apple, Google, etc.) and the process is expected to be much lighter (platforms only need to notify that they have reached a threshold).

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implementation) and the one-off cost per platform is estimated at EUR 113,053. This results in one-off administrative costs borne by MDMS platforms reaching the SMP thresholds, estimated at EUR 0.5 million relative to the baseline. Expressed as **annualised net present value**, additional one-off administrative costs for MDMS platforms amount to **EUR 0.06 million per year at EU level**.

Additional one-off administrative costs for transport operators. As explained in section 6.1.2, one-off administrative costs of EUR 1,356 at EU level are expected for RUs with SMP for informing national authorities about their parent platforms (opened to other RUs) in view of considering them as indispensable RU platforms (PM10). Expressed as **annualised net present value**, additional one-off administrative costs for transport operators amount to **EUR 159 per year at EU level**.

Additional one-off and recurrent administrative costs for national authorities. As explained in section 6.1.3 and 8.2, one-off administrative costs for national authorities are expected in relation to the obligation to process notifications from platforms with SMP and submit this information to the Commission and are estimated at EUR 3.1 million[215]. Expressed as **annualised net present value**, additional **one-off administrative costs** for national authorities amount to **EUR 0.36 million per year**. In addition, **recurrent administrative costs** for national authorities for settling disputes are estimated at **EUR 1.53 million** per year from 2028 onwards[216]. Thus, the **total additional administrative burden for national authorities** is estimated at **EUR 1.89 million per year**. As explained in sections 6.1.3 and 8.2, efforts have been made to keep these costs as low as possible, but they remain unavoidable, as they are essential to ensure settling disputes, the processing of notifications from platforms with SMP and the submission of this information to the Commission.

Overall, the additional administrative burden for businesses and public authorities is estimated at EUR 1.95 million per year at EU level, of which EUR 0.06 million for businesses.

9. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED

The Commission services will monitor the implementation of these initiatives through a number of actions and a set of core indicators that will measure progress towards achieving the objectives. In addition, the National Enforcement Bodies will play a key role in monitoring implementation.

At least five years after the start of implementation of the legislations, the Commission services should carry out an evaluation to among others verify to what extent the objectives of these initiatives have been reached. The evaluation should be undertaken at a point in time when sufficient data is available on actual implementation, so that ex-post it can be assessed whether the initiatives are efficient (what actual benefits are achieved at what actual cost), effective (whether they meet the objectives), coherent, relevant (whether they respond to the needs) and EU added value. Also, synergies between the RMB and the RTR will need to be analysed, together with the interplay with the targeted revision on rail passenger rights, since these initiatives are very much interlinked.

For the monitoring of Specific Objective 1 (*Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS*), the Commission will use as an indicator the number of transport operators distributing transport products on these platforms. This indicator will be assessed in regular intervals e.g. yearly. It would be a clear indication for a positive trend towards overcoming distortions of competition and establishing a level playing field for transport operators in terms of access and use of indispensable MDMS and indispensable RU platforms, if more transport operators are

[215] The one-off effort required is estimated at 2 FTEs per Member State in 2028.

[216] One full time equivalent (FTE) is assumed to be needed per national authority, with recurrent administrative costs estimated at EUR 56,527 per national authority. 27 national authorities are considered for calculating the total recurrent costs.

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actually using these platforms for offering their transport products. The monitoring of this indicator would be limited to these indispensable platforms since they have the power to restrict access.

Then another important indicator, which is also used for assessing the effectiveness of the policy options in meeting SO1, is the number of agreements between platforms and transport operators. An increase in the number of agreements between MDMS platforms and transport operators would indicate a better functioning of the online distribution markets. Contrary to the above indicator on the number of transport operators distributing transport products on indispensable MDMS and indispensable RU platforms, this indicator would not be limited to only indispensable platforms, but would capture all MDMS platforms, including independent ones. Therefore the 2 indicators would well complement each other and show market dynamics and the evolution of the market in terms of transport operators' access and use of platforms, including indispensable MDMS and indispensable RU platforms.

Finally, another indicator refers to consumer satisfaction scores on travel information availability and bookability measured by periodically conducted Eurobarometer surveys. Assuming the start of implementation in 2028, Eurobarometer surveys would be conducted every 2 years to measure consumer satisfaction on travel information availability and bookability among European citizens. In order to be able to compare their results to the results of the Eurobarometer survey conducted in 2024, the same set of questions would be used. Since Eurobarometer surveys are representative this indicator would provide a very robust basis to monitor the perception of consumers and therefore a good tool for monitoring progress towards achieving SO1.

As a complementary indicator the number of sanctions imposed as a result of enforcement activities could provide an indication on how prevention of unfair practices and fair display is respected. In the context of the EU enforcement network to support coordination; enforcement authorities will share information on sanctions allowing for a good basis to monitor progress towards achieving SO1.

The monitoring of Specific Objective 2 (*Improve completeness*) will be done on the basis of several indicators. The first indicator which contributes to assessing the effectiveness of the policy options in achieving SO2, is the number of indispensable RUs present on third-party platforms, measured by the number of agreements in place. An increase in the number of agreements between indispensable RUs and third-party platforms would signal improved access to rail offers as it would show that indispensable RUs are no longer relying mostly on their vertically integrated platforms for the distribution of their tickets. Another relevant indicator is the number of cross-border rail services for which tickets are available on third-party platforms. An increase in the number of cross-border services distributed through third-party platforms would signal a more integrated and competitive market, capturing the evolution of platform coverage in the fastest-moving segment of rail transport.

The list of indicators and data sources is presented in Annex 12.

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ANNEX 1: PROCEDURAL INFORMATION

1. LEAD DG, DECIDE PLANNING/CWP REFERENCES

The lead DG is Directorate General for Mobility and Transport (DG MOVE), Unit B4, Sustainable & Intelligent Transport, Unit C3, Single European Rail Area and Unit E1, Aviation Policy.

DECIDE reference number is: PLAN (2025)/708

The development of this initiative was announced under item 12 in Annex I to the Commission Work Programme 2022[217] and under actions 37 and 65 of the Sustainable and Smart Mobility Strategy[218], as well as in the Political Guidelines for 2024-2029.

The evaluation on the Regulation on a Code of Conduct was published on 23 January 2020[219]. The evaluation concludes that due to market and technological changes, there are questions as to whether the objectives of the CRS Code of Conduct are still relevant and whether the CRS Code of Conduct remains fit for purpose.

The Inception Impact Assessment for the Revision of the Code of Conduct on Computerised Reservation Systems was published on 9 July 2020[220].

The Inception Impact Assessment for the initiative on Multimodal Digital Mobility Services was published on 5 October 2021[221].

2. ORGANISATION AND TIMING

The Inter Service Group (ISG) for the impact assessment on the Revision of the Code of Conduct on Computerised Reservation Systems was set up in on 17 July 2017 as a continuation of the ISG set up for the 2020's evaluation and included the following DGs and Services: SG, SJ, CNECT, COMP, ENER, GROW, JUST, TRADE, JRC, ENV and MOVE. In total, 4 meetings of the ISG were organised to discuss the impact assessment. These meetings took place on 8 September 2020, 23 February 2021, 17 May 2021 and 20 June 2022 (all virtual meetings). Further consultations with the ISG were carried out by e-mail. Members of the ISG were also invited to regular discussions with the contractor in the context of the CRS impact assessment support study.

The Inter Service Group (ISG) for the impact assessment on the MDMS initiative was set up in July 2021 and included the following DGs and Services: SG, SJ, AGRI, CLIMA, CNECT, COMP, ENER, GROW, JRC, JUST, REGIO, RTD, TRADE.

In total, 6 meetings of the ISG were organised to discuss the impact assessment before the first submission to the Regulatory Scrutiny Board. These meetings took place on 29 September 2021, 19 October 2021, 14 February 2022, 16 June 2022, 13 March 2023, and 13 July 2023 (all virtual meetings).

In both instances, the ISG approved the Impact Assessment roadmap, the Terms of Reference for the External Support Study and the questionnaire for the OPC and discussed the main milestones in the process,

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[217] COM(2021) 645 final
[218] COM(2020)789 final
[219] SWD(2020)9 final
[220] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12507-Air-travel-computerised-reservation-systems-updated-rules- en
[221] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13133-Multimodal-digital-mobility- services_en

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in particular the different deliverables of the support study.

Following the negative opinion of the Board on the IA on the MDMS initiative, two additional ISG meetings were organised to discuss the revised impact assessment. These meetings took place on 30 August 2024 and 5 March 2026.

3. CONSULTATION OF THE RSB

The Regulatory Scrutiny Board received the draft version of the impact assessment report on 19 July 2023. The Board meeting took place on 13 September 2023, following which, it gave a negative opinion on the report. The Board made several recommendations which were addressed in the revised impact assessment report as explained in the table below. The revised draft impact assessment report was resubmitted to the Regulatory Scrutiny Board on 10 March 2026.

Table 31: Modification of the impact assessment (IA) report in response to RSB recommendations

Detailed RSB comments	How the comments were addressed
Summary of findings	
(1) The report does not clearly set out the problem (2) and expected contribution to the modal shift to be achieved by the initiative, (3) and which MDMS services will be included/excluded in its scope. (4) It does not clearly explain the initiative's expected impact on the behavioural change of travellers (5) and transport operators, (6) and its potential to tackle the underlying problem drivers.	(1) The revised IA report rephrases the problem definition (section 2) and improves the intervention logic. The problems being addressed are clearly set out and are two-fold: (i) Lack of transparency, unfair and uneven playing field in the online ticketing market, and (ii) Incomplete offer of rail tickets on (rail) platforms. Also 4 problem drivers and 2 consequences of the problems are identified, set out and explained. (2) The obstacles in the online ticket distribution market limit consumers' ability to compare and combine travel options and fares, and purchase tickets, resulting in an untapped potential for modal shift that could otherwise encourage more efficient and sustainable travel patterns. Based on evidence collected from a Eurobarometer survey conducted in summer 2024, literature review, targeted survey and interviews, and two stakeholders' workshops, the maximum potential modal shift and the maximum reduction in the travel time due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms have been estimated in the context of the impact assessment support study and are presented and explained in section 1.3.2 of Annex 4. In section 2.1 of the revised IA report the maximum potential modal shift estimates the magnitude of the consequences for consumers, which also illustrates the dimension and size of the underlying two problems. (3) The definition of MDMS and which services are included / excluded is explained and illustrated in section 2.1.1 of the revised IA report. Multimodal Digital Mobility Services (MDMS) are platforms providing traffic and travel information (e.g., schedules, tariffs and availability of services) and enabling the distribution of tickets, directly or via re-linking, for two or more transport operators, operating in one or more transport modes. Online distribution channels of transport operators – used exclusively for the distribution of their own transport services without offering third party tickets – are not considered to be in the 'platform market' and do not qualify as MDMS within the meaning of this initiative, therefore falling out of its scope. (4) The Eurobarometer survey conducted in summer 2024, which was undertaken on a representative sample of citizens and therefore its results are valid for the whole EU population, provides robust evidence on how end-users feel limited in their travel choices and on the question to which extent they are willing to opt for more

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Detailed RSB comments	How the comments were addressed
	sustainable alternatives. The revised IA report also provides further evidence on the existence of alternative travel choices, and to which extent those alternatives can be easily found and booked. This is based on an analysis of 100 routes in the EU identified in the IA support study and an assessment of how easy or cumbersome it is to find all travel options for each route – including those combining different operators and/or modes of transports. In chapter 6.1.8 the impact on transport activity in passenger-kilometres at EU level relative to the baseline is estimated and further detail is provided on this in Annex 4. This estimation is done by mode showing clearly the expected modal shift resulting from the different policy options, assuming behavioural change from consumers. (5) The revised IA report explains how the policy options are expected to have a positive impact on transport operators by promoting a level playing field and increasing access to indispensable MDMS platforms; detailed quantified estimations of costs and cost savings for transport operators are provided in section 6.1.2 and 6.1.5 specifically on transport operators SMEs, alongside an analysis of the impact on competition in the passenger transport market in section 6.1.8 and competitiveness in section 6.1.7. Further detail is provided in Annex 4 on these estimations including the underlying methodology. In addition, in Annex 5 a competitiveness check is performed along with a SME check in Annex 6. SME transport operators are exempted from the policy measures and are only indirectly affected as explained in Annex 6. (6) Section 5.2.2 of the revised IA report includes Table 1 outlining the links between the policy measures included in each option and the problem drivers they tackle. Specific objectives have been elaborated in a way to correspond to the problem drivers, problem driver 1-3 to specific objective 1, and problem driver 4 to specific objective 2. All policy options are designed to meet both specific objectives.
(1) The report does not sufficiently explain the design of the options, nor (2) the link between policy options and specific objectives. (3) It does not clearly set out the rationale, content and functioning of key measures, including (3a) the rules on rail journey continuation, (3b) the coverage of SMEs, (3c) the designation of indispensable actors and (3d) the role of competent public authorities.	(1) To effectively address the objectives and appropriately tackle the problems, in line with the RSB comments, the revised IA report presents the revised policy options: PO1 covers measures that apply across all policy options, while PO2 to PO4 progressively increase the stringency of obligations placed on RUs to address SO2. (2) All policy options are addressing the identified problem drivers and specific objectives with varying levels of effectiveness. Section 5.2 presents an overview of the differences between policy options as well as a table showing the links between policy measures and specific objectives (Table 2). (3) The policy measures are elaborated in more detail in section 5.2 and Annex 8 of the revised IA report, including their content, rationale and the way they would work. (3a) Following the RSB comments, the rules concerning the continuation of rail journeys are left outside the scope of this IA report. Additional rail passengers' rights are addressed in the context of a targeted revision of the Rail Passenger Rights Regulation, updating the analysis of a previously assessed measure in the context of an impact assessment[222]. The measure corresponding to the political guidelines on extending rail passenger rights to tickets bought in a single transaction on one platform has been already assessed in the 2017 Impact assessment and the assessment of impact

[222] SWD/2017/0318

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Detailed RSB comments	How the comments were addressed
	of this measure is being updated to provide for an up-to-date estimation of the expected impacts of this measure in the form of a cost-benefit analysis. This is being presented in an analytical Staff Working Document. (3b) Section 5.2 clarifies that SMEs are not covered by the obligations included in the policy options, whilst still benefiting from some of the provisions. The revised IA report explains how the policy options are expected to have a positive impact on transport operators by promoting a level playing field and increasing access to indispensable MDMS platforms; detailed quantified estimations of costs and cost savings for transport operators are provided in section 6.1.2 and 6.1.5 specifically on transport operators SMEs. Further detail is provided in Annex 4 on these estimations including the underlying methodology. In addition, in Annex 6 an SME check is performed. (3c) Additionally, the designation of indispensable RUs and B2C MDMS platforms is further clarified, including: (i) an explanation in section 5.2 of the choice of the proxies and of the thresholds used to determine significant market presence and transcribe indispensability; (ii) the process by which RUs and MDMS platforms with significant market presence will be identified and designated. The latter is presented in the description of the policy options in section 5 and in Annex 8. (3d) Finally, more details are provided regarding the enforcement authority, outlining its responsibilities in section 5.2 and Annex 8.
(1) The report does not adequately explain the methodological approach, (2) the limitations of the evidence used, (3) the underlying assumptions, (4) and the robustness of the analytical results presented. (5) The analysis of impacts on SMEs, competitiveness and of administrative costs under the One In, One Out approach is under-developed.	(1) The methodology to assess the impacts on modal shift has been thoroughly revised, and builds on evidence collected from a Eurobarometer survey conducted in summer 2024, literature review, targeted survey and interviews, market analysis for 100 routes in the EU, and two stakeholders' workshops to validate the inputs used by policy option in the ASTRA model. The revised methodology is explained in detail in Annex 4 of the revised IA report. (2) The limitations, (3) underlying assumptions and (4) robustness of the analytical results are explained in Annex 4 of the revised IA report. In addition, sensitivity analysis on modal shift and on thresholds to identify MDMS platforms and railway undertakings with significant market presence has been performed and is presented in section 7.6 of the revised IA report. (5) The SME check (Annex 6 of the revised IA report) and competitiveness check (Annex 5 of the revised IA report) have been performed, and the analysis has been reinforced. A separate Annex with detailed assessment of competition has been elaborated in Annex 13. The administrative costs, including those that fall under the 'One In, One Out' approach, are presented in a clearer and comparable way in section 8.3 of the revised IA report and in Annex 3.
(1) When comparing the options, the report does not sufficiently reflect the limitations of the evidence base when assessing the proportionality of measures, including mandatory sales and services obligations, and selecting preferred options. (2) It neither analyses sufficiently, nor clearly presents opposing stakeholders' views on key issues, on the identified problems, their	(1) To improve the evidence base of the potential impact of the measures, a Eurobarometer survey has been conducted in summer 2024, alongside literature review, a targeted survey and interviews, and two stakeholders' workshops in the context of the impact assessment support study. Those activities helped validate the inputs used for assessing the impacts of the policy options on modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms. These are explained in Annex 4 of the revised IA report. In addition, sensitivity analysis on modal shift has been performed and is presented

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Detailed RSB comments	How the comments were addressed
drivers and the proposed policy measures.	in section 7.6 of the revised IA report. Remaining limitations related to the preferred policy option, are further described in section 8.1. (2) The perspectives of various stakeholders regarding the problems, their drivers and the proposed measures are further elaborated in sections 2, 5 and 8.1 of the revised IA report and in Annex 2. The synopsis report has been thoroughly revised and updated with additional stakeholder activities undertaken, in order to better reflect stakeholder views and to clearly present opposing views on key issues, on the problems identified, their drivers and the proposed policy measures.
What to improve?	
(1) The report should set out a clear definition of the initiative's scope upfront. It should clearly set out the scope of MDMS including by explaining what "competing operators" implies in practice. (2) It should clarify upfront the scale of the problem, substantiating with evidence the untapped potential of multimodal mobility solutions under the dynamic baseline scenario and by being clear what realistically the expected contribution of the initiative could be, in the context of all current initiatives in multimodality. (3) It should also clarify with evidence in its problem definition, the key market failures justifying EU intervention and the relative importance of the problem drivers. (4) The report should assess to what extent these problem drivers are sufficiently exhaustive and/or to what extent other drivers are relevant for the success of the initiative (but outside the initiative's scope). It should also better describe the relevance of each of the drivers depending on the transport mode.	(1) The revised IA report outlines in section 2.1.1 the definition of MDMS and the scope of the initiatives. The definition is complemented by explanation and illustrated with examples in order to facilitate that a layman can understand. (2) As regards the scale of the problem, the revised IA report upfront in chapter 2 on the problem definition illustrates the magnitude of the problems identified by estimating the consequences for consumers a on how end-users feel limited in their travel choices, even when they are willing to opt for more sustainable alternatives. This is based on the Eurobarometer survey conducted in 2024, which took a representative sample of citizens and its results represent the views of the whole EU population. Additional evidence is based on a market analysis for 100 routes in the EU to assess the level of completeness of information and tickets on MDMS platforms across modes. This also allows to show to what extent alternative choices for passengers' long-distance and regional journeys exist, whether they can easily be accessed, understood and booked. This data is also used in the elaboration of the dynamic baseline scenario and to estimate the modal shift potential. Based on evidence collected from the Eurobarometer survey, literature review, targeted survey and interviews, and two stakeholders' workshops, the maximum potential modal shift and the maximum reduction in the travel time due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms have been estimated in the context of the impact assessment support study and are presented in section 2.1 and section 6 of the revised IA report and explained in section 1.3.2 of Annex 4. (3) Additional data on market failures and identified problem drivers is provided in section 2 of the revised IA report based on the market analysis and Eurobarometer survey, as well as literature review, targeted survey and interviews. For rail, evidence also draws on recent competition cases regarding ticket distribution, presented in more detail in Annex 11. Therefore, compared to the first submission the evidence base has been significantly strengthened and made more robust. (4) The revised IA has redesigned the problem tree in section 2.1 and has identified 2 problems which the initiatives address. One is multimodal, the other one is rail specific. For the first problem 3 multimodal problem drivers were identified. One rail specific problem driver was identified for the second rail specific problem. The revision of the problem tree has led to the identification of problem drivers which are sufficiently exhaustive. The issue of journey continuation has been taken out of the scope of this impact assessment and will be

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Detailed RSB comments	How the comments were addressed
	assessed in a specific targeted revision of the rail passenger rights regulation, which is accompanied by an analytical staff working document updating the existing IA conducted in 2017 on the Rail Passenger Rights Regulation. The revised intervention logic is more streamlined and has led to more focused problem drivers with increased relevance.
(1) Given the significant decrease of market share of CRSs in the distribution of tickets over the last decade, the report should substantiate with evidence their assumed continued (joint) dominance and (potential) abusive market behaviour. (2) It should better argue why a revision of the Code of conduct for CRS is still relevant, given the market innovation and technology dynamics of the airline ticket distribution sector. (3) Regarding the issue of rail journey continuation, the report should provide an evidence-based analysis supported by a market failure-based rationale for regulatory intervention. Given existing regulations and measures in place, the report should be clear on the size of the remaining gap, both within the same operators and across all operators, including potential developments of the rail markets.	(1) The revised IA report provides in section 2.1 updated evidence on the decreasing market share of CRSs in air ticket distribution, and despite this of their persistent strategic position in the business-to-business market and the whole ticket value chain (73% of all ticket selling channels are connected through a CRS). This, results in CRSs' continued dominance, and ability to use their position to impose terms and conditions. The revised IA report also provides a clear overview of the distribution landscape, including new business models (i.e. New Content aggregators) and new market features. Further details are provided in Annex 9 and 10. (2) It also provides the specific reasons for retaining the relevant provisions of the Code of Conduct for CRSs, updating those that require adjustments, in response to the market and technological changes, and repealing those that are no longer relevant. This aligns with the findings of the evaluation of the Code of Conduct. Further details are provided in Annex 9 and 10. (3) The rules concerning the continuation of rail journeys are outside the scope of this revised IA report. Rail passengers' rights are addressed in the context of a targeted revision of the Rail Passenger Rights Regulation. The latter will be accompanied by an analytical Staff Working Document which will update the assessment of impact of the existing underlying Impact Assessment carried out in 2017.
(1) The report should clarify the intervention logic, in particular, how this initiative would induce behavioural change among users of mobility services and transport operators, as well as the evidence base supporting these expectations. (2) It should make clear how the policy options address the specific objectives. The specific objectives should be phrased in more SMART terms to better understand what the change potential of this initiative is and how "success" is defined. (3) These objectives should be reflected in corresponding evaluation and monitoring indicators measuring the specific impacts of the measures in terms of contribution to the increased multimodality deployment and modal shift, including private road transport reduction.	(1) To address the RSB comments, the revised IA report integrates a revised intervention logic (2) with revised specific objectives. The revision of the specific objectives as set out in section 4 enables to better describe how the success of the initiative can be achieved. Th newly designed intervention logic is making clear links between the specific objectives and the policy options and allows for a more precise evaluation and monitoring. (3) The revised IA report also establishes a set of monitoring indicators, with which data would be gathered for monitoring purposes and later on for the evaluation of the initiatives' effectiveness, efficiency, relevance, coherence and EU added value. These indicators are directly linked to the revised specific objectives and enable the assessment of the initiative's progress towards its goals. They are further described in section 9 and Annex 12 of the revised IA report.
(1) The report should better explain the rationale, content and functioning of key policy choices. (2) It should provide greater clarity on how 'indispensable' operators and MDMS have been defined and what the supporting	(1) The revised IA report explains in section 5.2 the rationale, content and functioning of the key policy choices, with additional figures clarifying actors in scope. More detailed explanations of the measures included in each option are provided in Annex 8. (2) Section 5.2 also clarifies the criteria for designating indispensable

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Detailed RSB comments	How the comments were addressed
economic analysis for choosing a single 50% national market share for all MDMS and transport modes is. It should clarify how alternative thresholds would affect the impacts of the measures. (3) It should also describe in greater detail what the rules for rail journey continuation would look like, including how compensation fees in case of multi-operator journey continuation would be fixed. (4) It should explain the need for all MDMS to have neutral display requirements, even if they do not have market power. (5) The option chapter should also clarify the relevance of each of the different policy measures to SMEs and whether these might result in adjustment costs should they want to benefit from them. (6) The report should be clearer on the available enforcement options. If enforcement is left to national authorities, it should explain how a level playing enforcement field will be ensured and regulatory implementation fragmentation avoided.	RUs, indispensable RU platforms and indispensable MDMS platforms, and the process for their designation. Each selected criteria is presented and dully justified, demonstrating its relevance and efficiency in assessing the market. (3) The merits of journey continuation are now assessed in a targeted revision of the Rail Passenger Rights Regulation, in line with the measure proposed by the Commission in 2017. Therefore, the policy measures on journey continuation are not in the scope of the revised IA report. (4) The revised IA report (section 5.2) explains the rationale for obliging all MDMS to adhere to rules on neutral display, in particular showcasing the increased relevance of new players in the ticketing distribution market such as OTAs and MSEs (section 2.2.2). These rules promote fairness and transparency for consumers. (5) The report brings additional clarification on the impact of the different policy measures on SMEs with a dedicated SME test, see Annex 6. Although SMEs are not in the scope of obligations included in the policy options, they are expected to benefit from adjustment costs savings as explained in sections 6.1.1, 6.1.2 and 6.1.5 of the revised IA report. In the latter section impact on SMEs transport operators are singled out. No additional costs are expected for SMEs in any of the policy options. (6) More details on enforcement are included in section 5.2 and Annex 8 of the revised IA report.
(1) The report should significantly improve the explanation and presentation of the impact analysis. The impact section should explain the theory of change, evidence and assumptions used in the analysis while Annex 4 should be clear how all parts of the analysis link together, provide more detail on the approach and assumptions that underpin the ASTRA modelling and its link to the cost-benefit analysis. (2) The report should be more transparent about the methodological limitations and uncertainties. (3) It should be explicit on the reliability of extrapolating specific municipal level evidence to the EU level and on whether the evidence refers to specific modes of transport or specific settings such as urban transport. (4) Given that the benefits related to reduction in external costs of road accidents are significant and drive the net benefit impact of the initiative, it should be clear what evidence underpins the estimates and how robust the analysis is. (5) The report should provide a clear and convincing analysis explaining how the initiative will result in an expected modal shift leading to very high	(1) In the revised IA, the methodology to assess the impacts of the policy measures has been revised. In particular, the approach for estimating the modal shift achieved in each policy option has been revised, and builds on a more robust evidence base, with evidence collected from a Eurobarometer survey conducted in summer 2024, desk research, targeted survey and interviews, market analysis for 100 routes in the EU, and an expert workshop and a stakeholder workshop to validate the inputs used in the ASTRA model. The revised methodology is explained in detail in Annex 4 of the revised IA report and also briefly outlined in the introduction to section 6. This description includes detailed explanations on the evidence used and its limitations, and the underlying assumptions made together with links between the different modules used in the modelling. In section 7.6 additional sensitivity analysis is undertaken to test key assumptions, namely on the potential modal shift on the one hand, and on the thresholds to identify B2C MDMS platforms and RUs with Significant Market Presence on the other hand. (2) The limitations, underlying assumptions and robustness of the analytical results are explained in more detail in Annex 4 of the revised IA report and outlined in the introduction to section 6. (3) The revised IA report considers a revised approach for the assessment of impacts on modal shift, which is more robust also due to the representative Eurobarometer survey and the in-depth analysis of 100 origin-destination (OD) routes on which it builds. It is explained in detail in Annex 4. The urban dimension is out of scope of the analysis. (4) Particular attention is paid to the impacts on external costs savings, which are linked to the impact of the policy options on modal shift.

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estimated benefits from the reduction of the number of road accidents.	These are monetised and presented in detail in section 6 and in Annex 4. The magnitude of the impacts is also lower in the revised IA report. (5) The revised IA report includes a detailed analysis of how the initiative is expected to lead to modal shift and a reduction in road accidents, including the underlying assumptions and evidence base. It should be noted that the reduction in road accidents is directly driven by the reduction in the passenger car activity relative to the baseline, as explained in section 6.2.3. This analysis is transparent about the uncertainties and limitations of the estimates and is supported by sensitivity analysis on potential modal shift, in order to test the robustness of the results, as outlined in section 7.6.
(1) The report should undertake further analysis employing multiple evidence sources to assess the impacts of the options and measures are on competitiveness, SMEs, competition and Member States (in their enforcement role). It should, including through a dedicated SME test, more clearly explain the impacts on SMEs. (2) It should provide a more nuanced and comprehensive assessment of competitiveness of the affected transport and services sectors, both in the main report and in the annexed competitiveness check. (3) It should better assess the impact on market dynamics and market power, competition and innovation, including the risk of collusive behaviour potentially emerging from fixing interline fares or selling tickets of competitors, in particular, in light of the far-reaching nature of some of the measures. (4) The report should further elaborate on the enforcement role of Member States and estimate the enforcement costs that will fall exclusively upon them. (5) It should present the One In, One Out estimates in a clear and comparable way.	(1) The revised IA report includes a dedicated SME test (Annex 6) and competitiveness check (Annex 5). The impacts on national authorities are included in section 6.1.3 of the revised IA report. Dedicated sections are devoted to impacts on competitiveness, SMEs, competition in the revised IA chapter 6. (2) The analysis on competitiveness is enhanced in section 6.1.7 and Annex 5 of the revised IA report. The revised assessment is more nuanced and comprehensive of the affected transport sector, by singling out more the impacts on the rail sector. (3) Section 6.1.8 of the revised IA report provides a revised analysis and further details on the impacts on internal market, competition and innovation. Moreover, already the problem definition describing the second problem in section 2.2 indicates the underlying market failure stemming from market dominance and resulting market dynamics in the rail sector. Furthermore, a separate Annex with detailed assessment of competition has been elaborated in Annex 13. (4) The revised IA report, in section 5.2 and Annex 8, further elaborates on how enforcement will be ensured. Enforcement costs are estimated and presented in section 6.1.3 of the revised IA report and in Annex 4 (section 3). (5) The administrative costs, including those that fall under the 'One In, One Out' approach, are presented in a clearer and comparable way in section 8.3 of the revised IA report.
(1) The report should explain better the divergent views of different groups of stakeholders, in particular, on the identified problems, their drivers and the proposed policy options. (2) The report should be more open and nuanced about the limitations of marrying a limited evidence base to ambitious policy measures. (3) It should include a strengthened proportionality assessment regarding mandatory sales and service agreements. (4) Given that no single preferred option is identified, the report should better inform the decision makers in terms of the pros and	(1) The revised IA report provides additional information on stakeholders' views on the problems, problem drivers and policy options in sections 2 and 5.2 as well as in Annex 2, detailing views per stakeholder group. (2) The revised IA report provides more evidence (e.g. a Eurobarometer survey outlining the barriers in booking travel options for a representative sample of EU citizens, an analysis of existing travel options on 100 EU routes, reports on competition cases reflecting abuse of dominance, etc.) for the problems and problem drivers identified, matching the ambition of the policy measures. (3) The revised IA report also reviews the policy measures and options, limiting obligations on mandatory sales and service agreements to certain platforms and RUs who hold a strong market position (indispensable ones). The revised IA report justifies the

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Detailed RSB comments	How the comments were addressed
cons of the two short-listed preferred options.	proxies or thresholds used for assessing this market position in section 5.2. and presents a sensitivity analysis on the thresholds for B2C MDMS platforms in section 7.6. (4) The report identifies one preferred policy option, standing out as the most effective and efficient policy option assessed.

The Regulatory Scrutiny Board issued a second positive opinion with reservations on 13 April 2026. The Board made several recommendations which were addressed in the revised impact assessment report as explained in the table below.

Table 32: Modification of the impact assessment (IA) report in response to RSB second set of recommendations

Detailed RSB comments	How the comments were addressed
Summary of findings	
(1) The report should further clarify the scope of the intervention, including on multi-modal versus rail and the inclusion of mere transport information services versus on-line ticketing.	Section 2, in relation to the problem definition, was revised to clarify the scope of the intervention.
(2) The existence and magnitude of the alleged market failure(s) of 'uneven playing field in the online ticketing market' and 'incomplete offer of rail tickets on (rail) platforms' are not sufficiently demonstrated.	Additional information was added in section 2 to further underpin the existence and magnitude of the identified market failures and the fact that they are likely to remain despite technological developments and use of artificial intelligence.
(3) The report does not take into account the limitations of the methodology for estimating the modal shift and the resulting uncertainties which drive the estimation of the benefits and the identification of the preferred option.	Further explanations have been added in section 6 on the methodology used to quantitatively estimate modal shift deriving from the different policy options. Moreover, in section 7.2 the comparison between options was provided both including and excluding external costs savings resulting from the expected modal shift.
(4) The impact on competition and distribution of costs and benefits between different market actors is not sufficiently assessed.	In section 6.1.8 further analysis has been added in order to strengthen the assessment of impacts on competition and distribution of cost and benefits between different market actors.
(5) The assessment of the proportionality of the preferred option, including sharing and hosting obligations by 'indispensable' RU platforms, is not sufficient.	In section 7.4 the assessment of the proportionality of the preferred policy option has been enhanced in particular in relation to the sharing and hosting obligations by 'indispensable' railway operators and railway platforms.
What to improve?	
(1) Regarding the scope of the initiative, the report should explain why platforms that do not sell tickets but only offer transport information and redirect to ticket-selling intermediaries and operators are included in the scope even though the alleged two market failures/problems of uneven playing field in the online ticketing market and incomplete offer of rail tickets on (rail)	Additional elements have been added in section 2, to explain that (i) all online search platforms are not covered by the Regulation but (ii) re-linking platforms (i.e. MSEs, only re-linking to OTAs or transport operators websites) are in scope of this initiative, and currently pose a problem in the ticketing market. In addition, the links between problem 1, specific objective 1 and policy measures 1 to 4 have been further explained in section 5.2.

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Detailed RSB comments	How the comments were addressed
platforms are about ticketing. Based on an improved analysis of market failures (see point 2 below), the intervention logic should be reviewed to clarify how far market failure/problem 1 on ticketing relates to the wider specific objective 1 and can be addressed by policy measures 1-4 that do not specifically refer to ticketing. Throughout the report and the description of measures and options, ticket selling services and mere transportation information services should be more clearly distinguished.	
(2) The report should demonstrate more clearly the evidence base for the alleged market failures and their magnitude. In view of the recent technological evolution, including artificial intelligence since the initiative was first put forward in 2023, the report should analyse to which extent these developments would facilitate a level playing field in the concerned markets with regards to transparency.	Additional elements have been added to section 2 (section 2.2.2), outlining the potential risk linked to the introduction of AI in search algorithms used by MDMS platforms. Sections 1.3 and 7.3 outline the coherence between the AI Act and the RMB proposal. The AI Act will complement the proposed measures in this initiative, by ensuring safety and transparency of AI systems.
(3) The report should assess to what extent the problem drivers are sufficiently exhaustive and/or to what extent drivers outside the initiative's scope might impact the success of the initiative.	Section 2.2 has been revised to explain that other challenges (e.g. rail capacity, infrastructure development, passenger rights), which fall outside the scope of the initiative, and are addressed by other initiatives, can also contribute to the general objectives of enhancing multimodality and modal shift towards more sustainable modes of transport.
(4) The analysis of unintended consequences should be significantly strengthened, including the risks that incumbent RUs would decide to move out of scope of PM14 ('hosting obligation') by only selling tickets of services they operate directly, thus potentially leading to the opposite than the intended effect. The additional administrative burden on undertakings and public authorities for the identification of indispensable actors and the control of commercial agreements on distribution fees (PM9-12) should be enhanced in light of simplification efforts and the one-in, one-out approach.	Clarification has been added in section 6.1.8 on the risk that incumbent RUs would decide to move out of scope of PM14 by only selling tickets of services they operate directly, thus potentially leading to the opposite than the intended effect. It is explained that the initiative can avoid this risk by referring to the past practice of incumbent RUs. Additional explanations were provided in sections 6.1.1, 6.1.3 and 8.3 on the additional administrative burden for the identification of indispensable actors, building on Annex 4. It should be noted that these are kept to the minimum and the information already submitted through the Rail Market Monitoring Scheme will be exploited.
(5) While an effort was made to quantify the benefits, the expected contribution of the intervention to modal shift is based on methodology and assumptions which have limitations as they rely on stated preferences, expert judgment and opinions of	The introduction to the section 6 has been revised to explain that assumptions based on stated preferences represent a scientifically sound method to capture expected modal shift, especially when no real-life evidence is available based on historical data. The maximum potential modal shift presented is considered to be a conservative estimate, as it does not capture stated preferences on change in behaviour among individuals who already book such journeys but

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Detailed RSB comments	How the comments were addressed
stakeholders. Consequently, the benefits resulting from the estimated modal shift should not be included in the cost benefit analysis and the comparison of the options should be revised.	might do so more frequently in the future, due to the improvement of the ticketing system. However, to further acknowledge the uncertainty related to the estimated modal shift (in addition to the sensitivity analysis presented in section 7.6), section 7.2 of the revised IA report first presents the cost benefit analysis excluding the external costs savings (due to modal shift) followed by a presentation including the external costs savings. It should however be noted that excluding external costs savings represents an extremely conservative approach, considering that the estimated modal shift and the associated external costs savings already represent conservative estimates and that a major benefit of the initiative – that is passengers' savings on travel time, search time, and ticket price – was only reported in qualitative terms in view of the uncertainty in quantification.
(6) In light of the far-reaching nature of some of the measures (such as PM13, PM14, PM15), the impact on market dynamics and market power, competition and innovation should be better assessed, including on indispensable RUs, willing RUs and willing MDMS platforms. The report should detail better what the impacts are of PM13 ('sharing obligation') compared to PM14 ('hosting obligation') for incumbent RUs and how the resulting increase in costs for RUs is likely to impact the rail sector operation overall, including potential pass-through costs to consumers. It should discuss the business model underlying the sharing obligation and whether independent platforms are supposed to pay the operators for the provision of transport data or vice-versa.	Additional explanations have been added in section 6.1.8. These concern the expected costs of vertically integrated platforms for offering the distribution services they already provide for other operators to additional requesting companies, as well as the commission fees that arise when a platform sells a ticket on behalf of an RU. It is explained that neither RUs nor platforms would be required to change business model or engage in new activities, but that they would have to provide their products or services on non-discriminatory basis. Concerning the sharing obligation, it is explained that the normal business model would apply, whereby RUs normally pay a distribution fee to platforms that sell their tickets, while the proposal would ensure that distribution agreements are concluded on the basis of fair, reasonable and non-discriminatory (FRAND) conditions. Concerning the compared impacts of PM13 and PM14, the link between the expected impact of the hosting and sharing obligation and the respective size of the customer base of the incumbent and independent platforms is also clarified. Finally, section 6.1.9 provides further details on the expected impact on innovation of the policy measures.
(7) The analysis underlying the comparison of options is insufficient for supporting the conclusion on the preferred option, especially regarding the comparison of PO2 and PO3. The report needs to sufficiently assess the relative importance of hosting on indispensable RU's ticketing system, not least taking into account that the marginal contribution of PM13 on modal shift is substantially higher than for PM14, according to the report. The proportionality of the requirement for a company to host services for its competitors is not sufficiently demonstrated. The alignment of incentives between sellers and buyers should be further analysed.	Additional explanations have been added in section 7.1 to detail the interaction between the sharing and hosting obligations and their relative importance in view of the strong market presence of indispensable RU platforms. The proportionality of the hosting obligation is further explained not only by the significant market presence in both the railway services and railway platform markets that create the conditions and incentives for market distortions, but also by the consumer behaviour that tends to react slowly to changing market conditions. Explanations are added in section 7.2 on the quantification of benefits of the policy measures. It is clarified that quantification of modal shift is conservative and likely underestimates the impact of measures. Moreover, a fair comparison of PM13 and PM14 must take into account the expected impact on consumers, which is only expressed in qualitative terms, but is considerably higher for PM14. In section 7.4 the analysis of proportionality has been strengthened. This is also reflected in section 8.1.

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Detailed RSB comments	How the comments were addressed
(8) The report should be clearer on the available enforcement options. If enforcement is left to national authorities, it should explain how a level playing enforcement field will be ensured and regulatory implementation fragmentation avoided.	Further details have been provided in section 5.2.3 and Annex 8 in relation to the envisaged enforcement mechanism and how a level playing enforcement field would be ensured and regulatory implementation fragmentation avoided.
(9) Regarding coherence, the report should explain better how far the EU consumer and digital legislation – e.g. Unfair Commercial Practices Directive, Platform to Business Regulation, Data Act, Digital Services Act (DSA), Digital Markets Act (DMA), AI Act and the forthcoming Digital Fairness Act – already addresses the identified problems.	In section 1.3 the description of the context is broadened. In addition, in section 7.3 the analysis on external coherence has been further strengthened with more detailed elaboration of coherence with EU consumer and EU digital legislation, in particular Unfair Commercial Practices Directive, Platform to Business Regulation, Data Act, Digital Services Act (DSA), Digital Markets Act (DMA), AI Act and the forthcoming Digital Fairness Act.

4. EVIDENCE, SOURCES AND QUALITY

Information provided by the stakeholders through the stakeholder consultation activities were an important source of information (see Annex 2). It was completed by information provided ad hoc by different stakeholders to the Commission and by a Eurobarometer Survey[223].

The Commission sought external expertise through an impact assessment support study[224]. The external consultants worked in close cooperation with the Commission services throughout the different phases of the study, and particularly in the latter stages of assembling a coherent evidence base, in screening and adjusting policy measures and options and in assessing their impacts on various stakeholder groups. Overall, the sources used for the drafting the impact assessment report are numerous, diverse and inclusive of the different stakeholder groups.

[223] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024
[224] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment

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ANNEX 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT)

1. OVERVIEW OF CONSULTATION ACTIVITIES

In the context of the preparation of the Impact Assessment (IA), various stakeholder consultation activities were carried out. The process started with launching stakeholder consultation activities only related to the review of the CRS Regulation. Then this review was integrated into the IA on Multimodal Digital Mobility Services (MDMS). After receiving a negative opinion by the RSB, the initiative was split into 2 legal instruments the Regulation on Multimodal Booking (RMB) and the Rail Ticketing Regulation (RTR), still both covered by this impact assessment. Additional stakeholder consultation activities were undertaken to update stakeholder views on RMB and RTR. Consultation activities sought both qualitative (opinions, views, suggestions) and quantitative (data, statistics) information. These activities stretched from 2020 to 2025, first launched only specifically on the review of the CRS Regulation in December 2020 and later on for the impact assessment on the RMB and RTR initiatives. Overall, a high number of different consultation activities were carried out and stakeholders were consulted intensively. For instance, citizens were asked for their views on 5 occasions, the 2 Inception Impact Assessments (IIA), 2 Online Public Consultations (OPC) and a Eurobarometer survey. There were no campaigns identified.

This annex provides an overview of the stakeholder groups that were consulted as well as a summary and analysis of the responses received while differentiating the views of the different categories of stakeholders. The consultations covered all aspects of the impact assessment (problem definition, EU dimension, options and potential impacts). This synopsis report's aim is twofold, to inform policymaking on the outcome of all consultation activities and to inform stakeholders on how their input has been considered.

The contributions received in the context of the public consultation published on the 'Have Your Say' web portal cannot be regarded as the official position of the Commission and its services and thus does not bind the Commission nor that the contributions can be considered as a representative sample of the EU population, except for the Eurobarometer survey referred to.

1.1. Consultation process and strategy

The consultation strategy engaged main target groups through different methods, combining:

- Publication of the IIA, and a request for feedback to the IIA by all interested stakeholders which ran from 09 July 2020 until 04 September 2020 for the CRS Code of Conduct and 05 October 2021 until 02 November 2021 for MDMS.

- An OPC for CRS was launched on 23 February 2021 and remained open until 18 May 2021. For MDMS an OPC was launched on 1 December 2021 and remained open until 23 February 2022.

- A Eurobarometer survey with a representative sample of the EU population conducted during the summer of 2024 and published on 01 April 2025 on the European Commission's dedicated webpage.

Targeted consultations:

- **Online surveys**: before the first submission of the IA on MDMS, an online survey for all key stakeholder groups was launched on 22nd March 2022 and remained open until 3 June 2022. A total of 55 survey responses were received. For CRS, an online survey for all key stakeholder groups was launched on 29 April 2021 and remained open until 9 June 2021. The Commission received 43 responses. An additional online survey was launched on RMB and RTR for all key stakeholder groups. The survey was open from 14 February 2025 to 11 April 2025 with an extension granted for a limited number of stakeholders to respond by the 23 April 2025. It has received a total of 78 completed responses.

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- **Interviews**: before the first submission of the IA on MDMS, 66 interviews have been conducted between January 2022 until July 2022. Furthermore, seven exploratory interviews with key stakeholders were conducted in the beginning of the process (January/February 2022). Specifically for CRS, the interviews were conducted with 29 stakeholders representing air carriers and their associations, travel agents and their associations, meta- search engines, CRS providers, non-CRS providers and their associations and consumer protection organizations between April 2021 and July 2021. Moreover, five stakeholders participated in exploratory interviews (EU Travel Tech, ECTAA, A4E, EPF, IATA). In 2025 additionally 50 interviews have been conducted with a broad range of stakeholders (new entrant RUs, incumbent RUs, air carriers, CRSs, independent MDMS, vertically integrated MDMS, etc.)

- **Stakeholder workshops:** Overall there were 8 workshops undertaken. For MDMS and CRS, four stakeholder workshops took place between February 2022 and June 2023. Then four additional stakeholder workshops were organised between January 2025 and June 2025.

Throughout the period of preparing the IA, Commission services have additionally met with a wide variety of stakeholders and received several position papers. This consultation was complemented by the work of the Multimodal Passenger Mobility Forum expert group, gathering Member States representatives, local authorities and organisations representing MDMS and operators in all modes. The expert group was established in December 2021, with the objective to, amongst other tasks, assist the Commission in the preparation of policy initiatives in the field of sustainable multimodal mobility for passengers. A final report was published on February 2023[225].

2. STAKEHOLDER GROUPS CONSULTED

The consultation strategy mapped as key stakeholders the following groups:

- Industry stakeholders:

  including MDMS providers within and across modes for different geographical scopes including traditional CRSs, and metasearch engines; transport operators in all modes, with particular focus on Railway Undertakings (RUs) both incumbent and new entrants, and air carriers; intermediaries like travel agents and Travel Management Companies; alternative suppliers of ticket distribution technology such as new content aggregators and suppliers of Direct Connect software; industry associations.

- Public authorities

- Consumer, environmental, standardisation and non-governmental organisations (usually categorised as "Other" in the surveys).

- Citizens

2.1. Stakeholder participation per stakeholder activity

2.1.1. IIA and OPC

The Inception Impact Assessment for the initiative on MDMS received 40 responses.

Table 33: Summary of responses by stakeholder type (number and % of responses)

Stakeholder group	Number of completed survey responses	% of responses
Company/business organisation	12	30%

[225] https://transport.ec.europa.eu/news-events/news/multimodal-passenger-mobility-forum-final-report-2023-02-02_en

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Stakeholder group	Number of completed survey responses	% of responses
Business association	11	27.5%
Civil society	4	10%
Public authority	3	7.5%
Consumer organisation	2	5%
Non-governmental organisation (NGO)	2	5%
Other	6	15%
TOTAL	**40**	**100%**

Thirteen responses were received for the CRS IIA.

The CRS OPC invited all citizens and organisations to provide input on the potential revision of the CRS Code of Conduct and was targeted mainly at members of the general public and non-experts, as a complement to the targeted consultation. The OPC received 23 responses.

Table 34: Classification and number of stakeholders responding to the OPC on CRS

Stakeholder group	Stakeholders who submitted responses
Business association	EU Travel Tech, Global Business Travel Organisation (GBTA), ECTAA, one business association
Company	BEUC (The European Consumer Organisation), European Passengers' Federation, České dráhy, a.s. (ČD), Lufthansa Group, Amadeus IT Group, S.A., Robert Arrigo & Sons Limited, and three further company/business organisations
Environmental organisation	Bundesvereinigung gegen Fluglärm e.V.
EU citizen	Six EU citizens
Public authority	Two public authorities
Other	Aviation and Competition Law Research
Total	**23**

Table 35: Geographical distribution of responses received to the OPC on CRS

Country of origin	Number of responses	% of responses
Belgium	5	22%
Germany	3	13%
France	2	9%
Spain	2	9%
Netherlands	2	9%
Latvia	2	9%
United Kingdom	2	9%
Finland	1	4%
Austria	1	4%
Lithuania	1	4%
Malta	1	4%
Czechia	1	4%

The RMB OPC[226] received 336 responses, of which only 10 respondents were based outside the EU.

Table 36: Geographical distribution of responses received to the OPC on RMB

Country of origin	Number of responses	% of responses	Country of origin	Number of responses	% of responses
Germany	133	39.6%	Romania	2	0.6%
Italy	35	10.4%	Slovakia	2	0.6%
Belgium	30	8.9%	United States	2	0.6%
Austria	23	6.8%	Australia	1	0.3%
France	22	6.5%	Bulgaria	1	0.3%
Spain	17	5.1%	Canada	1	0.3%
Sweden	11	3.3%	Croatia	1	0.3%
Netherlands	8	2.4%	Cyprus	1	0.3%
Czechia	7	2.1%	Denmark	1	0.3%
Norway	7	2.1%	Greece	1	0.3%
United Kingdom	6	1.8%	Ireland	1	0.3%
Portugal	5	1.5%	Lithuania	1	0.3%
Finland	4	1.2%	Luxembourg	1	0.3%
Hungary	4	1.2%	Poland	1	0.3%
Latvia	3	0.9%	Russia	1	0.3%
Estonia	2	0.6%	Switzerland	1	0.3%

Table 37: Classification and number of stakeholders responding to the OPC on RMB

Stakeholder group	High level grouping	Number of responses	% of responses
Business association	Industry	17	5.1%
Company	Industry	62	18.5%
EU citizen	Citizen	173	51.5%
Non-EU citizen	Citizen	6	1.8%
Public authority	Public authority	40	11.9%
Academic/research institution	Other	3	0.9%
Consumer organisation	Other	6	1.8%
Environmental organisation	Other	3	0.9%
Other non-governmental organisation (NGO)	Other	17	5.1%
Other	Other	9	2.7%

2.1.2. Targeted consultations organised only in relation to CRS at the beginning of the IA process

The survey in relation to the CRS Regulation was aimed at industry stakeholders (including trade associations) and public authorities. The survey was launched on 29 April 2021 and remained open until 9 June 2021. The aim of the survey was to gather evidence and opinions on specific questions related to the potential revision of the Code of Conduct. The survey was first piloted with trade associations representing the interests of airlines, travel agents and CRS providers, and later distributed through these organisations to a total of 91 stakeholders.

Eu Travel Tech, A4E, IATA and ECTAA accepted to disseminate the survey among their members. For national competition authorities, the survey was distributed to the authorities that agreed to respond to it using contacts provided by the Commission (DG COMP). For direct distribution the consultant prioritised stakeholders such as non-CRS content aggregators and suppliers of direct connect software which are not represented by the above-mentioned trade associations, as well as a selection of MSEs, air and rail carriers,

[226] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13133-Multimodal-Digital-Mobility-Services/public-consultation_en

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and travel agents. The survey received 43 responses.

In relation to CRS the interviews were conducted from 29 April to 19 July 2021. The aim of the interviews was to follow up on responses to the surveys and engage in a more nuanced discussion of potential impacts of various policy options. A total of 29 interviews were conducted.

In addition, 4 exploratory interviews were conducted in February 2021. These interviews were used to discuss early the main topics on CRS, as well as data collection tools (surveys and interviews). These interviews were conducted with 5 associations: Eu Travel Tech, European Travel Agents and Tour Operators Associations (ECTAA), Airlines for Europe (A4E) Europe Passengers Federation (EPF) and IATA.

On 16 March 2021 a legal workshop with the participation of experts with a track record in the analysis of the Code of Conduct and airline ticket distribution in Europe was held. The legal workshop had the participation of three experts. Topics under discussion included the Code of Conduct scope and its terminology, and the possibly anticompetitive effects of parity clauses. On 14 July 2022, the Commission organized a workshop devoted to fair treatment provisions of the Code of Conduct. The purpose of this workshop was to obtain opinions of the workshop participants on CRS Regulation, in particular Articles 3 and 6 of the Code, and their future. In the workshop participated the representatives of: Eu Travel Tech, Amadeus, Travelport, BEUC, IATA, AF-KLM, A4E, Sabre and ECTAA.

The views expressed in the workshop by stakeholders with reference to fair treatment provision were diverging. While EU Travel Tech and the 3 CRSs were in favour of repealing the fair treatment provisions, IATA, A4E and AF-KLM were in favour of retaining and strengthening those rules, also calling for stronger enforcement of the Code of Conduct.

2.1.3. Targeted consultations organised in relation to RMB after the integration of the revision on the Code of Conduct for CRS into the initiative

After integrating the revision of the CRS Regulation into the initiative on RMB, an online survey was launched on 22 March 2022. The survey focused on obtaining input on the expected impacts (economic, social and environmental) of the measures under consideration in comparison to the baseline, the possible issues that may arise, to help assess the level of support for specific measures, and where relevant, input on the cost implications of each measure. A total of 55 responses were received.

The interviews were conducted between April to July 2022. Just like the survey, the aim of the interviews was to allow discussing IA parameters and to validate the choice of policy measures (following initial screening) and policy options (following the initial packaging). They focused on obtaining detailed input on the expected impacts (economic, social and environmental) of the measures under consideration in comparison to the baseline, the possible issues that may arise and to identify the level of support for specific measures, and, where relevant, the cost implications of each measure. A total of 66 interviews (plus 7 exploratory interviews), were undertaken with stakeholders. The table below outlines the interviews conducted and responses received to the online survey, as well as the total number of unique stakeholders involved in the targeted consultation.

A series of three workshops were organised to support the IA. A first workshop was organised on 22 February 2022 providing a summary of the IIA responses and a presentation on the problem and drivers. This workshop was followed by 312 stakeholders. On 19 April 2022, a second workshop presented the considered policy measures. It was followed by 140 stakeholders. A closed workshop was then organised on 28 February 2023 to gather feedback on the preferred policy option and its feasibility. It was followed by 285 stakeholders. A final workshop was conducted on 19 June 2023 to present the final policy options for the first submission to the Regulatory Scrutiny Board and was followed by 131 stakeholders.

After receiving a negative opinion of the Regulatory Scrutiny Board on the draft IA additional surveys, interviews and workshops were launched in order to gather the views of stakeholders on the updated initiative

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and its underlying intervention logic. The initiative was split into 2 legal proposals, on one hand the RMB and on the other hand the RTR related only to rail. Following the consultation process, the views gathered were considered to update the problem definition, the identification of different measures and policy options as well as the analysis of impacts and the design of the preferred policy option.

The survey was initially open from 14 February to 11 April 2025, although the deadline was extended for a limited number of stakeholders until 23 April 2025. The survey received a total of 73 completed responses. Transport operators make up the largest group of respondents, with 32 respondents. MDMS platforms were the second largest, with 19 responses, followed by national authorities, which account for 12 responses. The remaining 10 responses came from other stakeholders, including experts and consumer groups.

Additional in-depth interviews were held between 1 April and 16 May 2025. Overall, 51 interviews were undertaken. Nineteen with transport operators, including nine RUs (5 incumbents and 4 open access RUs), 6 airlines, 3 bus/coach operators and 1 maritime interview that involved the trade association and two operators. The next largest group interviewed was MDMS platforms, of which 16 were interviewed. Finally, 8 interviews were undertaken respectively with national authorities and other stakeholders, which included consumer organizations and representatives of sub-national public authorities. These interviews aimed at completing the results from the survey by developing targeted questions for each stakeholder to fill gaps in their respective survey response or elaborate further on their responses to specific questions. As a result, the interviews refined the data collected within the survey.

4 additional workshops were held. Three of those workshops were open to all stakeholders, and one was a closed workshop, targeting national experts. The first workshop took place in January 2025 and presented together with the problem definition the main objectives of the initiative to stakeholders. A second workshop was held in March 2025 and presented the list of policy measures and policy options, while the last stakeholder workshop took place in June 2025, presenting the expected impact of all policy options, and the underlying methodology. Finally, the closed workshop involving national expert was organized in May 2025, to validate key assumptions on the assessment of impacts.

3. **RESULTS OF THE CONSULTATION** activities

The objective of the consultation for this IA aimed to gather the views of stakeholders on the problem definition, objectives, policy measures and expected impact of policy measures. Objectives were tested through stakeholder workshops, as were key assumptions for the methodology on expected impacts, which led to refinements in the methodology for the assessment of impacts. The survey results refer to the latest survey as additional surveys were undertaken to show stakeholder views on the latest intervention logic. Outdated survey results are not presented in the below summary.

3.1. Representative Eurobarometer survey

A Eurobarometer survey has been conducted, during the summer of 2024, and published by Commission services on 1 April 2025. **This survey collected the booking and ticketing practices and experiences of a representative sample of the EU population**, aged 15 and over, in each of the 27 Member States of the EU. In total, **25 805 interviews** were conducted via an online survey. This survey provides insights on EU citizens' travel habits, preferences and experiences, particularly for regional and long-distance journeys. It examines key aspects, such as: (1) frequency of travel for leisure and work, (2) factors influencing travel planning and booking decisions, (3) attitudes towards environmentally friendly travel, (4) usage of different transport modes and multimodal journeys, (5) ease of booking multimodal and multi-operator journeys, and (6) barriers to combining different transport modes or operators. **The results notably highlight the obstacles encountered by citizens when looking for sustainable travel options online, as well as their willingness to book such journeys**. It outlines the difficulty for citizens to book multimodal and multi-operator journeys, and the extra burden citizens face when booking multi-operator rail journeys.

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Key findings outline that **76% of respondents book transport tickets online, but barriers remain**. In particular, among those who did not book a journey online, 14% cited the lack of complete information as one of the main barriers, and the same proportion cited the unavailability of all fares, while 10% did not find enough information on all travel options. The ease to find travel options and book tickets rank among the top five and six most important factors for respondents when booking a journey.

Additionally, while **78% of respondents are concerned about the environmental impact of travel, only 21% act accordingly**. The ease of finding an environmentally friendly alternative is cited by 22% as a key factor that would encourage them to book more sustainable travel options. **Sustainable travel options remain however difficult to find, with reported barriers in combining multimodal/ multi-operator journeys, and especially rail journeys involving multiple operators.** Indeed, more than 30% of respondents could not plan a multimodal/multi-operator journey because of barriers in ticketing, such as lack of suitable information (17%), of knowledge about the possibility of booking such journeys (7%), knowledge on how to search for such travel information (5%) or the inability to buy all tickets in one place (5%). For rail, the barriers in ticketing seem more important, with more than half of respondents reporting those same barriers.

The overview of results stemming from the Eurobarometer survey and further details are available on the European Commission's dedicated webpage. The results of the Eurobarometer survey are an important underlying evidence for the problem definition of this initiative.

3.2. Feedback received on the problem definition

Stakeholders provided significant input that helped validate the definition of the problems and development of policy options. The section below summarizes the input provided across all stakeholder consultation activities, primarily the targeted consultation activities which were validated through the workshops.

While these stakeholders were consulted on problems which are partially outdated since the intervention logic has evolved, stakeholder positions on key elements still relevant to this IA are outlined below.

As regards, the first problem driver 'opaque conditions for combining and reselling mobility products in land-based modes, waterborne and maritime transport'. A number of public transport operators and city representatives underlined that MDMS should not have an adverse effect on policy, and so public transport authorities should remain central to regulating mobility. ČD[227] noted that they had had negative experiences with ticket resellers manipulating or increasing the price of their tickets, which had had a negative impact on consumers and reflected badly on the operator. CER suggested that issues around the transparency of data collection and analysis had not yet been addressed. CONFEBUS[228] argued that there should be no separation of the marketing and operation of services, as a result of the specific conditions around the delivery of the services, while SNCF[229] argued that a distinction was needed between open data and booking and ticketing services in order to ensure certainty and transparency. On the other hand, ALLRAIL argued that there was no evidence that data had been misappropriated, while Trainline, a comparison and booking website, argued that there was a power asymmetry in negotiations, which prevented market entry and innovation on the part of MDMS providers. Both EPTO[230] and Move EU[231] underlined the importance of ensuring the commercial freedom of MDMS providers to choose whether or not to enter into any agreement.

The second problem in the IIA was specified as *''difficulty to ensure that incumbent MDMS do not adopt anti-competitive practices or that deployment of MDMS is not limited by anti-competitive practices'*. A sentiment that was raised by a number of respondents was that it is a challenge to create a fair MDMS eco-system for

[227] Czech national RU
[228] Representing Spanish bus operators
[229] French RU
[230] Representing European Passenger Transport Operators
[231] Representing new mobility services

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both public and private companies. From the perspective of incumbents, UTP[232] and SNCF both noted that public transport authorities and operators were already able to develop MDMS, as long as they respected competition law. From the perspective of the railway sector, NS[233] underlined the importance of ensuring that there were more than one or two online MDMS platforms, otherwise these would effectively become the gatekeepers for MDMS. In relation to buses, CONFEBUS called for the harmonisation of the approach taken towards data protection and commercial information for operators when sharing information with platforms. Data issues were of particular concern for new entrants. Trainline, Amadeus IT group and EU travel tech argued that legal certainty and enforceability were needed for MDMS on access to relevant data. Move EU underlined that there needed to be free and fair market access and competition principles in order to overcome the current fragmentation in the market. From the perspective of passengers, EPF noted that access to data, including to real-time information on disruptions, was an enabler of MDMS, while UNIFE[234] noted that access to mobility data was the main challenge for suppliers. Amadeus also suggested that it was important for intermediaries to have information on the different price components of fares in order to enable consumers to effectively compare different options. The focus of EU MDMS regulation should be on operator owned MDMS, according to EU travel tech, particularly in relation to self-preferencing and neutral display. They also called for independent distributors to be able to market and price as they wished to, as long as they accepted the economic risk. ALLRAIL called for incumbent MDMS to rebrand, so that they were not able to make use of the high level of awareness of their brand that already existed in the market.

In the OPC, respondents were asked to express their level of agreement with six statements that set out potential problems regarding the commercial relationships between operators and multimodal digital mobility services platforms. The highest level of agreement was with the statement that a lack of data sharing hampers the deployment of multimodal digital mobility services between modes, with which 60% (101 out of 168) of respondents 'fully agreed', this was supported by responding citizens, industry and public authorities. The majority of respondents 'fully agreed' or 'somewhat agreed' that both increased funding from EU programmes (85%; 142 out of 168) and legislative action by the European Commission (72%; 121 out of 168) would help to accomplish the objective of the RMB initiative.

In the survey, stakeholders were consulted on problems and problem drivers which were then re-organised since the intervention logic has evolved. Stakeholder positions are presented below based on the current intervention logic.

Problem 1: Lack of transparency, unfair conditions and uneven playing field in the online ticketing market

Problem 1 now reflects the responses of stakeholders who originally answered on whether they agreed with the two following problems:

- *Potential distortion of competition between CRSs and non-regulated B2B distribution channels performing similar functions to CRSs*

- *Uneven access of operators to indispensable MDMS platforms and indispensable RU platforms*

First, stakeholders' views were gathered through a survey specific to the review of the CRS's Code of Conduct, a survey conducted in the context of the support study to this impact assessment and interviews. In the survey conducted specifically for CRS in 2021, 20 of 37 respondents either agreed or strongly agreed that there is a potential risk of uneven regulatory treatment of B2B air ticket intermediation services. In particular, all participating public authorities, CRS providers and "other" stakeholders agreed or strongly agreed with this statement. The 3 CRS providers believed that the uneven regulatory treatment leads to the erosion of the indirect distribution channels. In their view, discriminatory initiatives implemented by big airline groups

[232] Representing French public transport operators.
[233] Dutch national RU.
[234] Representing the rail supply industry

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through surcharges, withdrawal of content, and other practices are intended to undermine indirect distribution of air tickets. Therefore, according to them the revised Code may still have value only if the scope is expanded to all competing players, definitions are clarified, and neutral display and transparency obligations are balanced with content quality commitments by airlines participating in CRSs, to ensure that the neutral display offers genuine value to travel agencies and consumers. On the other hand, air carriers (7 out of 14) noted that non-CRS content aggregators did not have the same market power and thus should not be subject to the same provisions as incumbent providers from the outset, as the former may still be relatively small and trying to develop a competitive commercial position.

Moreover, consumer protection association BEUC believed that if the CRS Code of Conduct is maintained and revised, it is essential that its scope is broadened to include all players operating/competing in the airline distribution market that have CRS functionalities, features, or offer CRS technical solutions. The association agreed with CRS providers that transparency of all offers (including ancillary services) is essential for fair competition and a focus on enforcement is necessary.

Finally, in the survey conducted in 2025, stakeholders were asked to express their level of agreement with the identification of potential distortion of competition between CRSs and non-regulated B2B distribution channels performing similar functions to CRSs as a problem and the problem drivers leading to this problem. Stakeholders were also asked to identify specific cases in which they encountered this problem . Stakeholders' views on this issue are summarized below.

In the targeted survey, across all stakeholder groups, 36 agreed (19 'fully', 17 'partially'), that there is a *potential distortion of competition between CRSs and non-regulated B2B distribution channels performing similar functions to CRSs,* whereas seven stakeholders disagreed (3 'fully', 4 'partially'). However, a much higher number of stakeholders (31) neither agreed nor disagreed (7) or did not know (24) compared to the previous two problems. Among MDMS platforms surveyed, 68% 'fully' or 'partially' agreed with PB3 (13 out of 19). Among transport operators surveyed, 44% agreed 'fully' or 'partially'. 46% of national authorities participating in the survey agreed, and the same proportion did not know or neither agreed nor disagreed. Finally, 55% of 'Other' stakeholders surveyed also agreed.

A common view among those who agreed with this problem in the survey and interviews was that the current regulation under the CRS Code of Conduct (CoC) is effective for traditional GDSs but no longer reflects market realities. They noted that new content aggregators, OTAs, metasearch engines, and other MDMS platforms now play a dominant role in distribution but are not subject to similar rules. All 3 main CRSs agreed with this problem sharing that existing rules unfairly constrain regulated CRSs while allowing newer, non-regulated actors to compete without equivalent obligations. MDMS who agreed with this problem highlighted a lack of fair competition between regulated CRSs and unregulated B2B aggregators, arguing that CRSs must comply with strict rules, such as neutral display requirements, while other distribution channels performing similar functions face no such obligations, leading to market distortion. Six airlines agreed with this problem specifying that the Code should be extended or updated to apply its core principles, such as transparency, equal access, and fairness, to all MDMS actors, 4 out of 6 also stressing the importance of stronger enforcement. Those who disagreed with the problem in the survey and interviews had various reasons. One large airline warned that applying the CRS Code of Conduct rules to small or emerging B2B MDMS platforms could harm innovation, as these actors lack the scale and content of established CRSs. A B2B new content aggregator operating in the rail sector argued that existing national and EU regulations were sufficient, highlighting the growth of independent platforms like Trainline and Omio as evidence of a competitive market.

When asked if the *regulatory framework is indeed no longer fit for purpose due to market and technological changes in the air distribution market* (PD1) leading to *potential distortion of competition in the B2B market,* 26 stakeholders surveyed 'fully' or 'partially' agreed. Furthermore, 11 stakeholders surveyed partially disagreed and 28 stakeholders neither agreed nor disagreed. Among MDMS platforms surveyed, 73% (13 out of 18) tend to agree with PD1 while the rest of MDMS platforms surveyed neither agreed nor disagreed. No

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clear disagreement, even partial, has been reported from this stakeholder group. On the contrary, transport operators participating in the survey expressed opposite views, with 48% sharing that they did not know (13 out of 27), and 41% that they 'partially' disagreed with PD1 (11 out of 27). Additionally, almost 50% of national authorities expressing a view in the survey and 66% of 'Others' surveyed agreed with PD1.

Stakeholders were asked in a 2025 survey to express their level of agreement with the identification of the *uneven access of operators to indispensable MDMS platforms and indispensable RU platforms* as a problem, and the problem drivers leading to this problem. Stakeholders were also asked to identify specific cases in which they encountered this problem. Stakeholders' views are summarized below.

Overall, in the survey 34 agreed (10 fully, 24 partially), while 28 stakeholders disagreed (12 fully, 16 partially) and 13 stakeholders neither agreed nor disagreed (10) or did not know (3). MDMS providers represent the group in which most survey respondents challenged this problem. Only 3 agreed (2 fully, 1 partially), whereas 14 disagreed (5 fully, 9 partially). For each of the other stakeholder types, a majority of survey respondents agreed with this problem. Among transport operators surveyed, 16 agreed (3 fully, 13 partially), whereas 8 disagreed (5 fully, 3 partially). For national authorities surveyed, 8 agreed (1 fully, 7 partially), as opposed to 4 who disagreed (2 fully, 2 partially). 'Other' stakeholders expressing a view were particularly supportive, as 7 agreed (4 fully, 3 partially), whereas only 2 partially disagreed.

MDMS providers surveyed that disagreed with this problem argued that their business model depends on offering a wide range of content. In their view any absence of certain operators is typically due to restrictive or economically unviable contractual terms by those operators or, in rare cases, concerns about poor customer service. **Transport operators** surveyed presented mixed views on this problem. Those that agreed were mostly operators from the air sector, highlighting that uneven playing field in the online ticketing market is a significant issue, often caused by exploitative practices by dominant CRS providers. One operator mentioned that regional airlines in particular struggle to compete fairly due to limited economies of scale and the prioritization of major carriers by gatekeeping platforms.

As to uneven access to and use of indirect distribution channels (B2B) by air carriers, 23 out of 38 stakeholders either agreed or strongly agreed that a level playing field is not fully ensured by current Regulation. These came largely from air carriers (15) and travel agents and MSEs (7). The only stakeholders to disagree with the definition of the problem were the 3 CRS providers, of which all strongly disagreed. They noted that there was no evidence of an imbalance between air carriers and suggested large air carriers use of direct distribution channels were the cause of imbalances. Air carriers surveyed highlighted the dominant position of traditional CRS providers as the reason for an unlevel playing field. The CRS providers stated that uncompetitive practices used by dominant airlines put them at risk of not complying with their transparency and unbiased display obligations towards travel agents.

Overall, 52% (38 out of 73) of stakeholders surveyed agreed either 'fully' or 'partially' that *MDMS platforms have commercial incentives to promote certain operators or products* (**PD2**), leading to *uneven access of operators to indispensable MDMS platforms*. A clear split in views has been identified between MDMS platforms and transport operators surveyed, with 60% of MDMS platforms 'fully' disagreeing (12 out of 20) with PD2, while 60% of transport operators surveyed, 'fully' or 'partially' agreed (18 out of 30) with this problem driver. Additionally, most national authorities responding to the survey 'fully' or 'partially' agreed, except for one respondent who fully disagreed and three who did not know or neither fully agreed nor disagreed. Similarly, 6 out of 10 'Others' also agreed.

A majority of respondents in all stakeholder groups identified the imbalanced commercial relations between indispensable MDMS platforms and transport operators (**PD3**) as a factor leading to *limited and distorted information on MDMS platforms*. In total, 64% (46 out of 72) of stakeholders surveyed agreed either 'fully' or 'partially' with PD3. Specifically, 68% (13 of 19) MDMS platforms agreed, 52% (16 of 31) transport operators, 9 of 11 national authorities and 8 of 11 'Others'. In particular, some stakeholders, including 3

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MDMS, describe a lack of coordination as a structural issue that impedes seamless integration, mainly independent MDMS providers who believe transport operators retain information[235]. The industry consensus among independent MDMS providers appears to be that the real barrier lies in the unfavourable contractual terms set by incumbent operators[236]. In rail, one consumer organization highlighted that Trainline users were able to purchase DB tickets but could not apply DB discount cards—an exclusion attributed to DB's own commercial strategy rather than technical limitations

In addition, 50% (36 out of 72) of stakeholders surveyed agree that the *imbalanced commercial relationship between MDMS platforms and transport operators* **(PD3***)* leads to *uneven access of operators to indispensable MDMS platforms*. Views expressed in the survey are divided by stakeholder groups, as 60% (12 out of 20) of MDMS platforms surveyed 'fully' disagree with PD3 while 56% (17 out of 30) of transport operators surveyed either 'fully' or 'partially' agreed with that statement. A large majority (9 out of 12) of national authorities expressed a view agreeing with PD3. In particular, airlines[237]. Those MDMS surveyed that agreed were mostly independent MDMS selling rail or coach tickets. They highlighted that the[238].

Problem 2: ***Incomplete offer of rail tickets on (rail) platforms***

Problem 2 now reflects the responses of stakeholders who originally answered to the following problem: *Limited and distorted information and access to tickets for consumers on MDMS, in particular for rail*

In the survey, stakeholders were asked to express their level of agreement with the identification of problem 2(PB2) and the problem drivers leading to this problem. Stakeholders were also asked to identify specific cases in which they encountered PB2. It must be highlighted that in the survey the problem was not limited to the rail sector and was looking at limited access to tickets for consumers.

There was a distinct split in views, with the majority of transport operators surveyed disagreeing with **PB2**, whereas there was broad support from the other stakeholder groups, who participated in the survey. Among transport operators, only 6 agreed with PB2 (two fully while four partially), whereas 19 disagreed (14 fully and 5 partially). However, it must be highlighted that all new entrant RUs surveyed agreed with PB2 (3 out of 3). All 20 MDMS providers surveyed agreed with PB2 (11 fully, 9 partially), as did all 11 'Other' stakeholders (six fully, five partially) taking part in the survey. There were a few dissenting voices among national authorities, although 10 agreed (four fully, six partially), whereas two disagreed (one fully, one partially).

In particular, 14 out of 19 air carriers surveyed underlined that PB2 does not apply to the air sector, where they believe the market is highly transparent and competitive and that transport operators should retain the commercial freedom to decide who can sell their tickets and which offers to display on their own ticketing platforms. Consumers associations BEUC, T&E and Polis indicated that problem 2 is not relevant for the air travel sector, as airlines already operate in a transparent and competitive market with multiple channels including OTAs, and MSE, highlighting dynamic pricing and the wide availability of ticket options ensure sufficient access for consumers. MDMS platforms surveyed on the other hand considered that PB2 was both prevalent in the rail and air sector alike. Eight of 13 national and regional authorities participating in the survey confirmed that, problem 2 reflects some real challenges in the current MDMS landscape. However, two highlighted that, in their respective country, they did not identify such problem.

When asked about the problem drivers leading to *limited and distorted information and access to tickets for consumers on MDMS, in particular for rail*, the majority of stakeholder groups surveyed, except for transport operators, agreed either 'fully' or 'partially' that there is a *limited willingness of indispensable RUs to provide:*

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[235] *Op.cit*: Statement supported by ADN mobilités and 3 other MDMS platforms as well as 1 'Other' stakeholder.
[236] Mentioned by 13 MDMS platforms/industry associations including ADN Mobilités, Skyscanner, Dohop, ECTAA, EUTT, SRF
[237] Mentioned in interviews by one airline association
[238] Ricardo (2025), *Interview analysis*: Statement supported by ADN Mobilités

(i) their full offer on fair terms to MDMS platforms; (ii) their competitors' offer on their platforms due to vertical integration (**PD4**) that lead to this problem.

Expressing contrasting views, 85% (17 out of 20) of MDMS surveyed agreed with *the limited willingness of indispensable rail operators to provide their full offer on fair terms to MDMS* while 70% (21 out of 30) of transport operators surveyed disagreed. While this split in views is clear, it is important to highlight that 9 out of 16 MDMS and 6 out of 19 transport operators (representing mostly new entrants/ small RUs) interviewed explicitly expressed concerns with market dominance of incumbent RUs and their integrated platforms. MDMS surveyed underlined however that both dominant RUs and air carriers are limiting and distorting information in MDMS platforms, therefore extending PD4 to air carriers[239]. One French MDMS's association reports states that those operators tightly controlling how their inventory is distributed, setting strict conditions like commissions, distribution limits, and "look to book" restrictions, and retaining information from platforms[240]. 2 new rail entrants[241] highlighted that although third-party rail services may be listed on indispensable RU platforms, they are reported to be not bookable, undermining effective competition.[242] As an example, a bus and rail operator reported that Deutsche Bahn selectively downplays or obscures competing services, including omitting price information or relegating listings to less visible positions, despite legal obligations for fair visibility.

Views on the *limited willingness of indispensable RUs to provide their competitors' offer on their platforms due to vertical integration*, leading to *limited and distorted information and access to tickets for consumers on MDMS, in particular for rail* are diverging depending on the type of stakeholder who responded to the survey. 80% of MDMS platforms (16 out of 19) and 56% of transport operators (17 out of 30) disagreed with this statement. Overall, incumbent RUs stress that including new rail services—especially long-distance or international connections—must make commercial sense[243]. With little public subsidy and low passenger volumes on many of the longer and less frequent routes, the cost of integration is considered disproportionate to the demand[244]. On the contrary, the new rail entrant industry association outlined that their offers are badly displayed on incumbents' platforms, and with around 95% of bookings made through dominant sales channels (often owned by incumbent RUs), limited visibility can severely undermine an operator's viability. Additionally, almost all the 12 national authorities surveyed (except for one) agreed 'fully' or 'partially' with this driver, as well as 82% of the 'Other' stakeholders surveyed (9out of 11).

3.3. Feedback received on the policy options

The final list of policy options and policy measures was presented to stakeholder during the second workshop held on 2 April 2025. Following the workshop, views were received on stakeholder's positions on each of the policy measures (PMs), via the survey and interviews.

In the survey, *the obligation for all MDMS to apply the CRS Code of Conduct's neutral display obligations and for transport operators the obligation to apply data accuracy rules* (**PM1**), was found effective by 29 out of 72 stakeholders participating in the workshop, while 11 found it ineffective, and 32 were either neutral (26) or did not know (6). 9 out of 12 national authorities and 5 out of 10 Others expressing a view found the measure effective, while 17 of 30 transport operators were neutral/ did not know and 11 of 30 air transport operators/airline associations found the measure effective and MDMS platforms present in the workshop had

[239] Statement supported by EUTT and 2 other MDMS platforms in the air sector.
[240] *Op.cit.*: Statement supported by ADN Mobilités, sectorial organization representing French-based independent platforms
[241] The industry association All Rail and Westbahn
[242] *Op.cit*: Statement supported by two new entrants in rail sector (including WestBahn), one MDMS provider, one national authority, and four 'others'.
[243] Mentioned by three incumbent RUs and their industry association CER
[244] Ricardo (2025): Interview analysis, Statement supported by 3 out of 16 MDMS including EUTT and Dohop, and 3 RUs with SMP including CER and DB.

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various views, with 8 out of 20 finding it ineffective, 7 were neutral, 1 did not know and 4 found it effective.

Participants of the OPC for RMB were asked how important different measures are in their opinion to ensure fair access for all operators to relevant multimodal digital mobility services platforms. The outcome is far more favourable than the above survey, with 149 out of 169 respondents indicating that neutral display as a policy measure is important to them to ensure fair access for operators. Only 13 respondents found it not important. Moreover, 70 out of 80 respondents from industry indicated it to be important versus only 7 who found it not important.

In the specific consultations for the revision of CRS Code of Conduct of 2021, regarding the neutral display provision (Article 5), the majority of air carriers (10 out of 11) and stakeholders in the "other" category (3 out of 4) either disagreed or strongly disagreed with repealing this provision. No CRS providers disagreed, whilst 2 out of 3 either agreed or strongly agreed to the repeal of the provision. TAs and MSEs were more evenly split with 3 out of 8 agreeing and two disagreeing. Most of the 11 air carriers and 8 travel agents suggested CRS providers would adopt a display bias as a result of a repeal, while two CRS providers and Eu Travel Tech suggested that they had no incentive to adopt a bias.

BEUC and EPF, along with three CRS providers, three travel agents and ECTAA believed that all players operating/competing in airline ticket distribution that have functionalities, features or offer technical solutions of CRSs (by offering access to prices, schedules etc.) should be included in the scope of the CRS Code of Conduct. These include MSEs, OTAs and non-CRS aggregators. Two LCCs and ERA commented in interviews that the CRS Code of Conduct should be expanded in scope and revised to regulate the practices of MSEs and OTAs. Two CRS providers noted that an expansion to B2C should be considered. One CRS provider also noted that both B2C and B2B distribution channels ultimately face the consumer, and that the Code of Conduct should protect consumer choice, fair competition and innovation, regardless of the channel. Similarly in the context of the Inception Impact Assessment for the revision of the Regulation on Code of Conduct, the 4 airlines providing feedback indicated that Art. 5 of the Code of conduct should be revised. The *obligation for all MDMS to apply the CRS Code of Conduct's rules on fair treatment of transport operators limited to load and process data provided with equal care and timeliness* (**PM2**) in tackling problem 1 was perceived as effective by 27 out of 72 stakeholders surveyed, ineffective by 24, and 21 were either neutral (12) or did not know (9). Among stakeholder groups, transport operators and MDMS were the most sceptical, with respectively 12 out of 30 and 10 out of 20 finding it ineffective, while national authorities and 'Others' were more positive, with respectively 10 out of 12 and 4 out of 10 (and 4 did not know) finding it effective. PM2 was overall perceived as effective in tackling problem 2 with 24 out of 68 finding it effective. The views of stakeholder group did not vary significantly in relation to this problem, with MDMS platforms and transport operators questioning it most while national authorities found to be most supportive.

In the OPC on the question whether respondents find it important to integrate a provision to ensure non-discriminatory treatment of the parties across commercial agreements 154 out of 169 and only 6 respondents found this measure as not important.

Similarly, the *obligation for all MDMS to apply the CRS Code of Conduct's rules on marketing and booking data* (**PM3**) is viewed as effective by 19 out of 69 stakeholders surveyed in tackling problem 1, ineffective by 25 and 25 were neutral (13) or did not know (12). Among stakeholder groups, MDMS platforms expressing a view questioned most this PM, with 12 out of 19 finding it ineffective. On the contrary, national authorities surveyed supported it with 6 out of 11 finding it effective. Transport operators and 'Others' surveyed were more nuanced, with 5 out of 29 transport operators finding it effective, 11 ineffective, 6 neutral and 6 did not know, and 4 out of 10 Others finding it effective, 2 ineffective, 1 neutral and 3 who do not know. Views of stakeholders on PM3 in relation to problem 2 are almost identical.

In the OPC on RMB, "Requirements for commercial agreements on marketing conditions" were deemed important by 107 out of 157 respondents.

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Obligation for all B2B MDMS platforms to treat subscribers fairly and clearly identify in their display banned airlines and for third countries B2B MDMS to ensure equivalent treatment of EU air carriers, (**PM4**) was perceived as effective by 26 out of 66 stakeholders surveyed, ineffective by 11 and 29 were either neutral (4) or did not know (25). The high level of "unknown" responses can be explained by the fact that stakeholders surveyed are not all involved in the B2B market and therefore might not have a clear view of what effect this measure might have. MDMS platforms participating in the survey were the most sceptical, with 9 out of 20 finding it ineffective. On the other hand, no transport operators nor national authority surveyed found the measure ineffective, rather expressing a positive or neutral view of PM4. Finally, a majority of stakeholders expressing a view in 'Other' category found PM4 effective (5 out of 9).

In the OPC on RMB "Requirements for commercial agreements on avoiding the misuse of data reuse by third parties" were important to 134 out of 159 respondents.

The *removal of provisions from the CRS Code of Conduct on data protection no longer necessary due to GDPR* (**PM5**) was perceived as effective by 9 out of 66 stakeholders surveyed, ineffective by 10 and 47 were either neutral (22) or did not know (25). In all stakeholder groups a majority participants expressed a neutral opinion, or did not know the effect of PM5.

In the stakeholder consultation related to the revision of the CRS Code of Conduct, air carriers, CRS providers and MSEs who participated in the survey stated that Article 11 could be repealed as protections on personal data are now covered under GDPR.

The *obligation for Member States to appoint a national authority to settle disputes between parties* (**PM6**) was perceived as effective by 36 out of 71 stakeholders surveyed in tackling problem 1, 14 found it ineffective and 21 were either neutral (14) or did not know (7). Among neither of the stakeholder groups surveyed was gathered a majority of sceptical opinion on PM6, with a majority of answers collected presenting a majority of positive position towards PM6[245]. Regarding stakeholders' views on PM6 in relation to problem 2, stakeholders appeared more neutral, with 27 of 56 respondents being neutral to PM6 in relation to problem 2

The *obligation for all B2C MDMS to share non-personal data for mobility management with public authorities* (**PM7**) was seen as effective by 15 out of 71 stakeholders surveyed, ineffective by 20 and 36 were either neutral (27) or did not know (9). MDMS platforms surveyed appeared to be the most sceptical group, with 11 out of 20 to find it ineffective.

The passenger organisation providing feedback to the IIA on Code of Conduct for CRSs postulated that the access to transport service providers data should be ensured in order to provide travellers with more information both on air and non-air travel options.

The *obligation for all B2B and B2C MDMS to display information on GHG emissions of trips only when the data is provided by the operators* (**PM8**) was perceived as effective by 28 out of 71 stakeholders surveyed, ineffective by 25 and 18 were either neutral (16) or did not know (2). Stakeholders in "Other" category gathered the biggest proportion of positive response to PM8, with 6 out of 10 finding it effective.

In the OPC on the issue of "ensuring that multimodal digital mobility services enhance the efficiency and sustainability of the transport system", a large share of the responses (85%) stated that carbon footprint information was moderately or very important (144 out of 169 respondents). Of those who chose to respond to this question only 12% stated that this measure was not important (20 out of 169 respondents).The *establishment of thresholds to identify B2C MDMS and RUs with SMP* (**PM9**) was perceived as effective by 14 out of 67 stakeholders surveyed in tackling problem 2, ineffective by 15 while 38 were either neutral (17)

[245] Transport operators were 10 out of 19 to be neutral and 5 to find it effective, MDMS platforms were 5 out of 17 to be neutral, and 3 to find it effective, while 2 out of 11 national authorities were neutral and 6 find it effective and 3 out of 9 Others found PM6 effective and 2 were neutral.

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or did not know (21). Similar responses were found in relation to PM9 in tackling problem 1. The high portion of neutral/ unknown answers can be explained by the fact that the exact thresholds had not been shared with stakeholders at the time of the consultation, resulting in a lack of clarity on the effect such a measure could have on the market. As a result, a majority of stakeholders surveyed in all stakeholder groups expressed neutral/unknown effectiveness[246].

The adoption of *a decision by the EC to designate indispensable MDMS platforms and RUs with SMP at EU and national level* (**PM10**) was perceived as effective by 16 out of 67 stakeholders surveyed, ineffective by 19, and 32 were either neutral (14) or did not know (18). As per above, the lack of specific information regarding the criteria leading to this designation can explain the high number of "neutral"/"unknown" answers.

The obligation to respect fair principles when entering into commercial agreements for indispensable MDMS and RUs platforms (**PM11**) generally seen as effective by surveyed stakeholders as PM12. In total, 31 expected it to be 'very' (6) or 'somewhat' effective (25). 15 of 27 transport operators, expected the measure to be very effective (2) or somewhat effective (13) and in total 20 stakeholders surveyed expected it to be 'very' ineffective (15) or 'somewhat' ineffective (5). Finally, 18 stakeholders surveyed were neutral (9) or did not know (9). Responses were more moderate for **PM12** - *Obligation for indispensable RUs to respect fair principles when entering into commercial agreements with MDMS*, as 19 of 69 stakeholders surveyed expected it to be very (5) or somewhat effective (14) and 14 stakeholders expected it to be very ineffective (11) or somewhat ineffective (3). A majority (36) of stakeholders expressing a view were neutral (16) or did not know (20). As expected, for PM11, MDMS platforms surveyed generally opposed the measure (13 of 20 against) while transport operators surveyed expressed more support (15 of 27 in favour). PM12 showed divergent results, as most transport operators surveyed 'did not know' (17 of 29). Overall, the high level of neutral/did not know answers has often been adopted because of the perceived lack of clarity on what is meant by the measure, especially "respecting principles on distribution fees and without imposing restrictive clauses". In interviews, multiple independent MDMS platforms and consumer organizations highlighted the necessity of implementing explicit FRAND principles to enable transparency and efficiency within the ecosystem[247]. Several RUs on the other hand raised concerns that imposing levels of fee defined by regulation could distort the true value of services rendered and overlook the internal costs borne by providers[248].

Eight MDMS platforms/ MDMS industry association and 14 transport operators participated in 2022 to the Multimodal Passenger Mobility Forum (MPMF) to support the Commission in its preparatory work for this initiative. In the MPMF final report, the need to "feature FRAND as a core standard [249]" for the contractual provisions between MDMS platforms and transport operators is outlined. In particular, the use of FRAND is mentioned as a principle that could "guide points to calculate compensation (…), access to data, (…) look to book ration and marketing restrictions; transparency on terms and conditions[250]."

In the specific survey on the related to the revision of the CRS Code of Conduct, regarding the provisions on fair treatment of transport operators and subscribers, the 3 CRS providers and some travel agents' and platforms' associations, were in favour of their repeal. In their view, there is no need for such provisions as there is no market failure. CRSs are not as powerful as in the past. There is also no issue to address for relations between CRSs and travel agents. On the other hand, airlines' associations underlined that these provisions should be retained as the commercial relationship between CRSs and airlines need to be regulated and the weaker party (in particular regional airlines) should be protected. CRSs are still powerful, particularly because they are regionally focused and do not compete on regional markets. Airlines do not have a choice if they want

[246] In total, from 10 out of 17 MDMS platforms, 18 out of 27 transport operators, 6 out of 10 national authorities, 4 out of 10 Others.
[247] Stated in interview by ADN Mobilités, EUTT, EPF, one national authority
[248] Stated interviews by CER (representative of RUs), DB (German incumbent RU), SNCF (French incumbent RU), UITP (representative of urban public transport services)
[249] MPMF final report (2022), p.32
[250] Ibid p.26

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to reach consumers in a particular market of choice but to cooperate with a CRSs that is focused on this market. Therefore, airlines' bargaining position vis-à-vis CRSs is still weak and needs to be protected by provisions on fair treatment.

Similarly in the context of the Inception Impact Assessment for the revision of the Regulation on Code of Conduct, all 13 stakeholders providing feedback except for the 4 airlines, advocated for expanding the scope of the (modified) sectoral rules to include all ticket distribution channels. The 4 airlines postulated to limit the scope of the (modified) rules to large CRSs with dominant position on the market only.

*The obligation for RUs with SMP and all other RUs in relation to cross-border or PSO services, to enter into a commercial agreement with requesting MDMS platforms to enable the sale of rail tickets (***PM13***)* divided stakeholders surveyed, with 22 of 77 finding it very (8) or somewhat (14) effective, 14 finding it very (10) or somewhat (4) ineffective, and 34 to be either neutral (13) or to not know (21) the effect of this measure. *Transport operators surveyed appeared to be the most sceptical towards this obligation,* with 8 of 29 finding it very (6) or somewhat (2) ineffective and 17 to 'not know' its effect. Additionally, 35% (7 out of 20) of MDMS platforms found the effect to be neutral, and the same proportion effective. Majority of national authorities (7 out of 11) and 'other' stakeholders (6 out 10) expected PM13 to be effective. During interviews, some transport operators emphasized that mutual commercial interest must guide collaboration[251]. 2 air carriers, one MDMS provider and A4E, generally rejected in their interviews the applicability of such regulatory obligations to their market. By contrast, EPF and WestBahn strongly supported in their interviews a broader application of the obligation, and believe that all MDMS, RU, and transport modes should be included within the regulatory scope of PM13. *Regarding* **PM14** *and the obligation for indispensable RU platforms to enter into commercial agreements with requesting* RUs*,* stakeholders also provided diverging views. In total, 22 out of 68 stakeholders surveyed expected it to be very (10) or somewhat effective (12). Furthermore, 20 stakeholders surveyed expected it to be very ineffective (19) or somewhat ineffective (1). Finally, 26 stakeholders expressed a neutral view (17) or did not know (9). A majority 52% (15 out of 27) of transport operators surveyed believed this obligation would be very ineffective while a majority of MDMS platforms surveyed thought the effect of PM14 would be either neutral (35%, 7 out of 20) or 'very' ineffective (25%). On the contrary, 55% of national authorities surveyed (6 out of 11) and 60% of 'other' stakeholders surveyed (6 out of 10) declared that PM14 would be effective, therefore counterbalancing the position of platforms and operators. A strong concern voiced by rail incumbent and independent MDMS platforms is the risk of increased market concentration that such an obligation would result in[252]. Conversely, new entrant RUs represented by ALLRAIL supported targeted intervention where it applies only to dominant vertically integrated MDMS.

In the OPC participants were asked about whether they find it important to establish an obligation on the integration, on the basis of reasonable terms, of operators willing to be part of an MDMS platform. This corresponds to PM14 but compared to the OPC question, the PM14 is restricted to indispensable rail platforms only instead of MDMS platforms. In the OPC 152 out of 168 respondents who expressed an opinion found it important while 6 did not. 77 out of 80 stakeholders from industry expressing a view found it important versus 2 who did not.

In the specific survey related to the revision of the CRS Code of Conduct stakeholders were asked which provisions of the CRS Code of Conduct (if any) should be repealed. IATA and three air carriers highlighted Article 10 as no longer relevant, because airlines no longer have significant ownership stakes in the CRSs.

Finally *requiring indispensable RU platforms to unbundle with their parent operator*, in **PM15** has sparked very diverging views among stakeholders surveyed. 22 of 69 expected this measure to be very (10) or

[251] two MDMS providers including ADN Mobilités, an incumbent rail operator, an association of airlines, the public transport operators association UITP, two national authorities and other organizations such as ECTAA

[252] voiced by two incumbent RUs / rail association including CER, and two MDMS industry associations EUTT and ADN Mobilités

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somewhat effective (12); 20 stakeholders surveyed expected it to be very ineffective (19) or somewhat ineffective (1); and 26 stakeholders expressed either a neutral view (17) or did not know (9). Expectedly, a majority of transport operators surveyed (54%, 15 out of 28) found the measure to be very ineffective, while surveyed MDMS platforms' position was more nuanced, with 30% (6 out of 20) finding the measure effective, 35% to have a neutral effect and 20% found it ineffective. 6 out of 11 national authorities participating in the survey found the measure effective as did 4 of 10 'Others'. In interviews, many RUs emphasized that ticket revenue is essential for sustaining rail operations, arguing that the ticketing process directly funds train services, and that unbundling is disruptive and would not bring added value to consumers[253]. A new entrant RU notes the delicate balance between acknowledging the real challenges posed by incumbent dominance in vertically integrated ticketing and the risk that introducing such a measure might jeopardize the entire regulatory framework, describing the situation as a "mixed bag". Complexity is also underlined by the MDMS EU Travel Tech, which points to the inherent difficulties in establishing a fully independent MDMS that can operate without ties to incumbent RUs. Contrasting these concerns, new rail entrants argued that incumbent sales channels are a form of inherited public property that must be accessible to all market participants[254].

[253] Statement shared in interview by DB, CER, SNCF and UITP
[254] Statement shared in interview by a new entrant RU, All rail

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ANNEX 3: WHO IS AFFECTED AND HOW?

1. PRACTICAL IMPLICATIONS OF THE INITIATIVE

The preferred policy option (PO3) is expected to lead to a number of benefits and costs for various stakeholder groups:

- Transport service users first and foremost as they will be able to benefit from (i) a reduction of search costs; (ii) an increase in competition in the platform market, and (iii) an increase in competition in the transport market. The most direct effect would be the reduction in search cost, as travellers would be able to find, compare and purchase tickets in a single place without having to perform longer searches and visit multiple platforms. This is expected to be particularly true for rail. Increased competition in the platform market would also lead to greater innovation efforts, widening of services available on platforms, improvements in the overall ticketing experience, and possibly reduction of transaction costs for users. Finally, greater competition in the transport market is expected to lead to lower prices and increase the quality and frequency of transport services.

- National authorities are expected to incur enforcement costs for monitoring the online ticketing market for potential entities with SMP, as well as the correct implementation of the legislation. They are also expected to incur administrative costs for settling disputes and for processing notifications from platforms with SMP and submit this information to the Commission.

- The European Commission is expected to incur adjustment costs for the designation process and the monitoring of the market and due to the support for the coordination of enforcement with an EU-wide enforcement network.

- MDMS platforms that rely on access to operator's offers to provide their services can also be expected to see an increase in their capacity to develop and offer services at optimal cost and quality levels. In particular, independent MDMS platforms are expected to get a better access to rail tickets, therefore improving their ability to offer more sustainable travel options to their customers. MDMS platforms will also benefit from the rules on commercial agreements established by the legislation that will allow them to streamline negotiation processes with operators. On the other hand, MDMS platforms are expected to incur adjustment and administrative costs for adjusting their platforms to fairness requirements and reporting to authorities.

- Transport operators can be expected to benefit from fairer access and display of their offers on MDMS platforms, making it easier to sell more tickets and reach more consumers thereby maximising the efficiency of their operations. On top of this, new entrant RUs will be able to access indispensable RU platforms, increasing their visibility towards consumers, and further supporting their development. Transport operators will also benefit from the rules on commercial agreements established by the legislation that will allow them to streamline negotiation processes with MDMS platforms. On the other hand, (rail) transport operators are expected to incur adjustment and administrative costs for sharing their offers and reporting to authorities.

- Society as a whole is expected to benefit from a reduction of external costs of transport, achieved by better travel traffic management, improved transport system performance and the promotion of a modal shift towards rail and coach, which will reduce negative impacts linked to car traffic such as reduced CO_2 and air pollutants emissions, noise, fatalities and injuries, accidents and congestion.

2. SUMMARY OF COSTS AND BENEFITS

I. Overview of Benefits (total for all provisions) – Preferred Option (PO3)		
Description	***Amount***	***Comments***
Direct benefits		

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I. Overview of Benefits (total for all provisions) – Preferred Option (PO3)		
Description	***Amount***	***Comments***
Adjustment costs savings for non-SME MDMS platforms (expressed as present value over 2028-2050, relative to the baseline)	EUR 43.5 million	Adjustment costs savings for non-SME MDMS platforms due to the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties that are expected to streamline the negotiation processes. The adjustment costs savings are estimated at EUR 43.5 million, expressed as present value over 2028-2050 relative to the baseline.
Adjustment costs savings for non-SME transport operators (expressed as present value over 2028-2050, relative to the baseline)	EUR 37.9 million	Adjustment costs savings for non-SME transport operators due to the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties that are expected to streamline the negotiation processes. The adjustment costs savings are estimated at EUR 37.9 million, expressed as present value over 2028-2050 relative to the baseline.
Decrease in the average expenditure per person for interurban mobility, relative to the baseline	0.06% decrease in average expenditure per person for interurban mobility in 2030 and 0.34% in 2050 relative to the baseline	Benefits for citizens. Decrease in the average expenditure per person for interurban mobility, due to the increase in competition resulting from better access and use of indispensable MDMS for transport operators.
Reduction of search costs for transport services users	n/a	Benefits for citizens. Reduction in search costs, as travellers would be able to find, compare and purchase tickets in a single place without having to do long searches or visit several platforms.
Increased competition in the transport market	n/a	Benefits for citizens. Greater competition in the transport market would tend to lower prices and increase the quality and frequency of transport services.
Increased competition in the platform market	n/a	Benefits for citizens. Increased competition in the platform market would lead to greater innovation efforts, widening of services available on platforms, improvements in the overall ticketing experience, and possibly reduction of transaction costs for users
Indirect benefits		
Adjustment costs savings for SME MDMS platforms (expressed as present value over 2028-2050, relative to the baseline)	EUR 90.5 million	Adjustment costs savings for SME MDMS platforms due to the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties that are expected to streamline the negotiation processes. The adjustment costs savings are estimated at EUR 90.5 million, expressed as present value over 2028-2050 relative to the baseline.

I. Overview of Benefits (total for all provisions) – Preferred Option (PO3)		
Description	***Amount***	***Comments***
Adjustment costs savings for SME transport operators (expressed as present value over 2028-2050, relative to the baseline)	EUR 96.1 million	Adjustment costs savings for SME transport operators due to the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12) with third parties that are expected to streamline the negotiation processes. The adjustment costs savings are estimated at EUR 96.1 million, expressed as present value over 2028-2050 relative to the baseline.
Reduction in CO2 emissions (cumulative over 2028-2050 relative to the baseline)	23.8 million tonnes saved over 2028-2050 relative to the baseline	Indirect benefit to society at large. The reduction in CO_2 emissions is estimated at 23.8 million tonnes, cumulatively over 2028-2050 relative to the baseline.
Savings in external costs of CO_2 emissions (expressed as present value over 2028-2050 relative to the baseline)	EUR 6.8 billion	Indirect benefit to society at large. Savings in external costs of CO_2 emissions due to the modal shift. The savings in external costs of CO2 emissions are estimated at EUR 6.8 billion expressed as present value over 2028-2050 relative to the baseline.
Reduction in air pollutant emissions (cumulative over 2028-2050 relative to the baseline)	23.9 thousand tonnes of NOx saved over 2028-2050 relative to the baseline 1.5 thousand tonnes of PM2.5 saved over 2028-2050 relative to the baseline	Indirect benefit to society at large. The reduction in NOx emissions is estimated at 23.9 thousand tonnes, cumulatively over 2028-2050 relative to the baseline, while the reduction in particulate matter (PM2.5) emissions at 1.5 thousand tonnes over the same period.
Savings in external costs of air pollutant emissions (expressed as present value over 2028-2050 relative to the baseline)	EUR 0.7 billion	Indirect benefit to society at large. Savings in external costs of air pollutant emissions due to the modal shift. The savings in external costs of air pollutant emissions are estimated at EUR 0.7 billion expressed as present value over 2028-2050 relative to the baseline.
Savings in external costs of noise emissions (expressed as present value over 2028-2050 relative to the baseline)	EUR 2.1 billion	Indirect benefit to society at large. Savings in external costs of noise emissions due to the modal shift. The savings in external costs of noise emissions are estimated at EUR 2.1 billion expressed as present value over 2028-2050 relative to the baseline.
Decrease in the number of fatalities and injuries (cumulative over 2028-2050 relative to the baseline)	2,113 lives saved, and 136.9 thousand injuries avoided over 2028-2050 relative to the baseline	Indirect benefit to society at large. The number of lives saved due to the reduction in the passenger car transport activity is estimated at 2,113 cumulatively over 2028-2050 relative to the baseline, while the reduction in the number of injuries at 136.9 thousand over the same period.
Savings in external costs of accidents (expressed as present value over 2028-2050 relative to the baseline)	EUR 21.3 billion	Indirect benefit to society at large. Savings in external costs of accidents due to the reduction in the passenger car transport activity. The savings in external costs of accidents are estimated

I. Overview of Benefits (total for all provisions) – Preferred Option (PO3)		
Description	***Amount***	***Comments***
		at EUR 21.3 billion expressed as present value over 2028-2050 relative to the baseline.
Savings in external costs of road congestion (expressed as present value over 2028-2050 relative to the baseline)	EUR 6.4 billion	Indirect benefit to society at large. Savings in external costs of road congestion due to the reduction in the passenger car transport activity. The savings in external costs of road congestion are estimated at EUR 6.4 billion expressed as present value over 2028-2050 relative to the baseline.

II. Overview of costs – Preferred option (PO3)						
	Citizens/Consumers		**Businesses**		**Administrations**	
	One-off	**Recurrent**	**One-off**	**Recurrent**	**One-off**	**Recurrent**
Direct adjustment costs (**expressed as present value over 2028-2050**, relative to the baseline)	-	-	For MDMS platforms: EUR 50.1 million For transport operators: EUR 42.2 million	For MDMS platforms: EUR 72.2 million	-	For the European Commission: EUR 5.3 million
Direct administrative costs (**expressed as present value over 2028-2050**, relative to the baseline)	-	-	For MDMS platforms: EUR 0.5 million For transport operators: EUR 1,356 at EU level	-	For national authorities: EUR 3.1 million	For national authorities: EUR 25.8 million
Direct enforcement costs (**expressed as present value over 2028-2050**, relative to the baseline)	-	-	-	-	-	For national authorities: EUR 106.5 million

III. Contribution to the administrative burden reduction targets – Preferred option (PO3)					
Administrative costs [M€]	**New recurrent costs (INs)** (nominal values per year)	**Removed recurrent costs (OUTs)** (nominal values per year)	**Net cost (INs – OUTs)** (nominal values per year)	**New one-off costs (INs)** (annualised total net present value over the relevant period)	**Removed one-off costs (OUTs)** (annualised total net present value over the relevant period)
All businesses (relative to the baseline)	-	-	**EUR 0.06 million (additional costs)**	EUR 0.06 million, of which: EUR 0.06 million for MDMS platforms and	-

III. Contribution to the administrative burden reduction targets – Preferred option (PO3)					
Administrative costs [M€]	**New recurrent costs (INs)** (nominal values per year)	**Removed recurrent costs (OUTs)** (nominal values per year)	**Net cost (INs – OUTs)** (nominal values per year)	**New one-off costs (INs)** (annualised total net present value over the relevant period)	**Removed one-off costs (OUTs)** (annualised total net present value over the relevant period)
				negligible (EUR 159) for transport operators	
- of which SMEs	-	-	-	-	-
Public administrations (relative to the baseline)	EUR 1.53 million	-	**EUR 1.89 million (additional costs)**	EUR 0.36 million	-
Citizens (relative to the baseline)	-	-		-	-

Note: This table presents the average annual values relative to the baseline. By contrast, the Table II above (Overview of costs) presents the present value over 2028-2050, relative to the baseline, an approach also used for the efficiency table in section 7.2.

3. RELEVANT SUSTAINABLE DEVELOPMENT GOALS

IV. Overview of relevant Sustainable Development Goals – Preferred Option (PO3)		
Relevant SDG	**Expected progress towards the Goal**	**Comments**
SDG#13 (Climate Action)	*Decrease in CO_2 emissions:*23.8 million tonnes of CO_2 saved over 2028-2050 relative to the baseline	The reduction in CO_2 emissions will result in cost savings associated with lower climate-related externalities, such as avoided environmental damage and health impacts from climate change. Expressed as present value over 2028-2050, these costs savings are estimated at EUR 6.8 billion relative to the baseline.
SDG#3 (Ensure healthy lives and promote wellbeing for all at all ages, including target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.)	*Decrease in NOx emissions:* 23.9 thousand tonnes of NOx saved over 2028-2050 relative to the baseline *Decrease in particulate matter (PM2.5) emissions:*1.5 thousand tonnes of PM2.5 saved over 2028-2050 relative to the baseline *Decrease in noise emissions:* The savings in external costs of noise emissions are estimated at EUR 2.1 billion, expressed as present value over 2028-2050 relative to the baseline.	The reduction of air pollutant emissions and of noise emissions will result in cost savings associated with improved air quality, reduced health impacts, and enhanced well-being. Expressed as present value over 2028-2050, these costs savings are estimated at EUR 0.7 billion for air pollutant emissions, and at EUR 2.1 billion for noise emissions relative to the baseline.
SDG#9 (Make cities and human settlements inclusive, safe, resilient and sustainable)	*Decrease in the number of fatalities and injuries relative to the baseline:* 2,113 lives saved and 136.9 thousand injuries avoided over 2028-2050 relative to the baseline	The reduction in the number of fatalities and injuries will result in external costs savings associated to accidents estimated at EUR 21.3 billion, expressed as present value over 2028-2050 relative to the baseline

ANNEX 4: ANALYTICAL METHODS

1. DESCRIPTION OF THE ANALYTICAL METHODS USED

The analytical framework used for the purpose of this impact assessment builds on the *PRIMES-TREMOVE and ASTRA models*, as well as on a suite of inputs and ad-hoc tools developed for the purpose of this impact assessment in the context of the impact assessment support study[255].

The main model used for developing the baseline scenario for this initiative is the PRIMES-TREMOVE transport model by E3Modelling, a specific module of the PRIMES models. The model has a successful record of use in the Commission's energy, transport and climate policy assessments. In particular, it has been used for the impact assessments underpinning the Communication on a 2040 climate target[256], the "Fit for 55" package[257], the impact assessments accompanying the 2030 Climate Target Plan[258] and the Staff Working Document accompanying the Sustainable and Smart Mobility Strategy[259], the Commission's proposal for a Long Term Strategy[260] as well as for the 2020 and 2030 EU's climate and energy policy framework.

ASTRA is the main model used to assess the policy options presented in this impact assessment. It provides results at Member State and EU level on economic, social and environmental indicators, including external costs. The ASTRA model is a well-established model that has been used for numerous impact assessments in the energy, transport and climate action fields for the past 15 years[261]. The baseline scenario of the ASTRA model has been calibrated on the PRIMES-TREMOVE results.

The assessment of impacts builds significantly on evidence from a 2024 Eurobarometer survey on ticketing[262] and the in-depth analysis of 100 origin-destination (OD) routes, conducted in the context of the impact assessment support study. In addition, **an expert workshop was organised to discuss the maximum potential modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms, and an additional stakeholders' workshop was organised to validate the inputs used for the policy options in the ASTRA model**. More details on how this evidence was used are provided in the sections below.

A suite of inputs and ad-hoc tools have been developed in the context of the impact assessment support study that feed into the ASTRA model:

- *Route clustering.* The policy measures assessed are expected to have an impact on modal shares. Depending on factors such as geography, existing transport services offering and MDMS platforms maturity, the changes in modal shares are likely to be route-dependent. 100 origin-destination (OD) routes are selected for in-depth analysis. They are grouped into 'clusters' that capture the full range of impacts expected across different routes in the EU and are further used in the Multi Parameter Analysis (MPA) module.

- *Multi Parameter Analysis (MPA) module.* The module translates, through a scoring, the impact of the policy measures assessed on the completeness and accuracy of service information, and the ability to book service offerings for each cluster. The completeness and accuracy of service information and the

[255] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment.
[256] EUR-Lex - 52024DC0063 - EN - EUR-Lex (europa.eu)
[257] Delivering the European Green Deal | European Commission (europa.eu)
[258] SWD(2020)176 final
[259] EUR-Lex - 52020SC0331 - EN - EUR-Lex (europa.eu)
[260] Source: 2050 long-term strategy (europa.eu)
[261] For example, Register of Commission Documents - SWD(2023)351; Register of Commission Documents - SWD(2023)443; Register of Commission Documents - SWD(2021)472; Register of Commission Documents - SWD(2021)474
[262] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024

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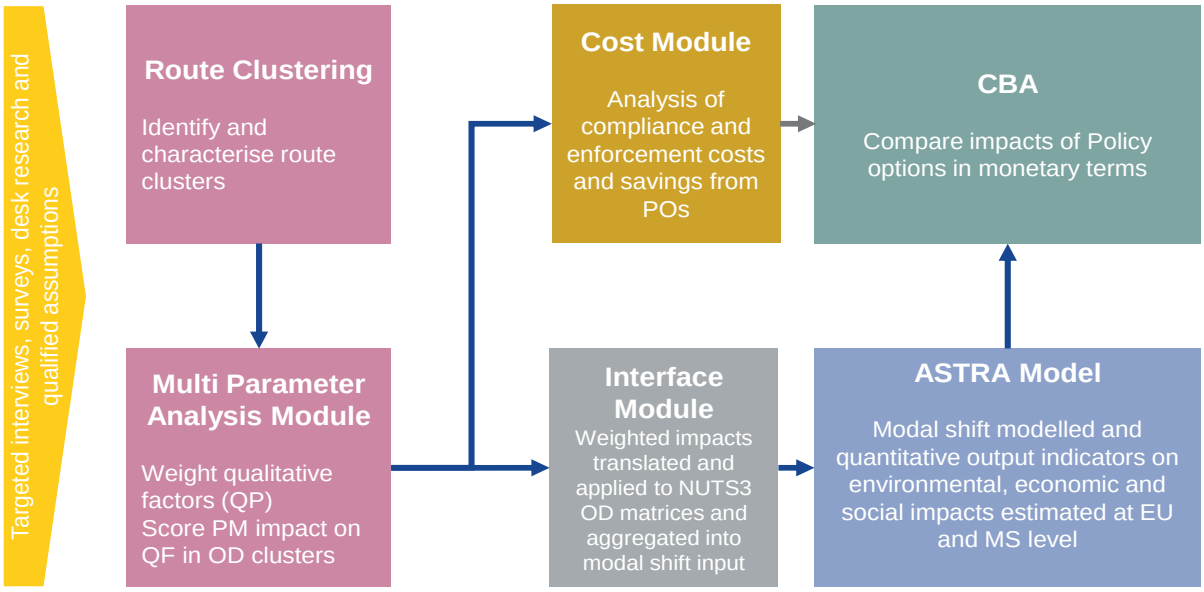
ability to book service offerings have in turn an impact on modal shift and journey time. The scoring is used to assess the progress that could be achieved towards the maximum potential modal shift and maximum potential journey time reduction due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms.

- *Interface module*. This module translates the outputs of the MPA module into origin-destination pairs at NUTS3 level[263], that further feed as input into the ASTRA model.

In addition, an *excel-based tool* has been developed in the context of the impact assessment support study, drawing on the standard cost model, to calculate the costs and costs savings, that feed into the cost-benefit analysis (CBA) module[264]. A schematic representation of various inputs, modules and model that contribute to the quantitative assessment of impacts is provided in the figure below. More detailed explanations on each of the components are provided in the following sections.

Figure 8: Schematic representation of the quantitative assessment of impacts



Source: Ricardo et al. (2026), Impact assessment support study

The proposed measures are assumed to be implemented from 2028 onwards. The assessment has been undertaken for the 2028-2050 period and refers to EU27. Costs and benefits are expressed as present value over the 2028-2050 period, using a 3% discount rate. All costs and benefits are expressed in 2024 prices.

1.1. PRIMES-TREMOVE model

The PRIMES-TREMOVE transport model projects the evolution of demand for passengers and freight transport, by transport mode, and transport vehicle/technology, following a formulation based on microeconomic foundation of decisions of multiple actors[265]. Operation, investment and emission costs, various policy measures, utility factors and congestion are among the drivers that influence the projections of the model. The projections of activity, equipment (fleet), usage of equipment, energy consumption and emissions (and other externalities) constitute the set of model outputs.

[263] The Nomenclature of territorial units for statistics (NUTS) is a geographical nomenclature subdividing the EU territory into regions at three different levels (NUTS1, NUTS2 and NUTS3 respectively, moving from larger to smaller territorial units). NUTS3 regions are those with population between 150,000 and 800,000.
[264] Ricardo et al. (2026), Study supporting the RMB and RTR Impact assessment.
[265] A detailed description of the model is available at: PRIMES MODEL

The PRIMES-TREMOVE transport model can therefore provide the quantitative analysis for the transport sector in the EU, candidate and neighbouring countries covering activity, equipment, energy and emissions. The model accounts for each country separately which means that the detailed long-term outlooks are available both for each country and in aggregate forms (e.g. EU level).

In the transport field, PRIMES-TREMOVE is suitable for modelling *soft measures* (e.g. eco-driving, labelling); *economic measures* (e.g. subsidies and taxes on fuels, vehicles, emissions; ETS for transport when linked with PRIMES; pricing of congestion and other externalities such as air pollution, accidents and noise; measures supporting R&D); *regulatory measures* (e.g. CO_2 emission performance standards for new light-duty vehicles and heavy-duty vehicles; EURO standards on road transport vehicles; technology standards for non-road transport technologies, deployment of Intelligent Transport Systems) and *infrastructure policies for alternative fuels* (e.g. deployment of refuelling/recharging infrastructure for electricity, hydrogen, LNG, CNG). Used as a module that contributes to the PRIMES energy system model, PRIMES-TREMOVE can show how policies and trends in the field of transport contribute to economy-wide trends in energy use and emissions. Using data disaggregated per Member State, the model can show differentiated trends across Member States.

The PRIMES-TREMOVE has been developed and is maintained by E3Modelling, based on, but extending features of, the open source TREMOVE model developed by the TREMOVE[266] modelling community. Part of the model (e.g. the utility nested tree) was built following the TREMOVE model[267]. Other parts, like the component on fuel consumption and emissions, follow the COPERT model[268].

Data inputs

The main data sources for inputs to the PRIMES-TREMOVE model, such as for activity and energy consumption, come from EUROSTAT databases and from the Statistical Pocketbook EU transport in figures[269]. Excise taxes are derived from DG TAXUD excise duty tables. Other data comes from different sources such as research projects (e.g. TRACCS and New Mobility Pattern projects) and reports. In the context of this exercise, the PRIMES-TREMOVE transport model is calibrated to 2005, 2010, 2015 and 2020-2023 historical data, as well as the most recent data on the structure of the road transport vehicle fleet for the first half of 2025 from the European Alternative Fuels Observatory (EAFO)[270].

1.2. ASTRA - ASsessment of TRAnsport Strategies

ASTRA is a strategic model based on the Systems Dynamics Modelling approach simulating the transport system development in combination with the economy and the environment until the year 2050[271].

ASTRA consists of different modules, each related to one specific aspect such as the economy, transport demand or the vehicle fleet. The main modules cover the following aspects:

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[266] https://www.tmleuven.be/en/navigation/TREMOVE.

[267] Several model enhancements were made compared to the standard TREMOVE model, as for example: for the number of vintages (allowing representation of the choice of second-hand cars); for the technology categories which include vehicle types using electricity from the grid and fuel cells. The model also incorporates additional fuel types, such as biofuels (when they differ from standard fossil fuel technologies), LPG, LNG, hydrogen and e-fuels. In addition, representation of infrastructure for refuelling and recharging are among the model refinements, influencing fuel choices. A major model enhancement concerns the inclusion of heterogeneity in the distance of stylised trips; the model considers that the trip distances follow a distribution function with different distances and frequencies. The inclusion of heterogeneity was found to be of significant influence in the choice of vehicle-fuels especially for vehicles-fuels with range limitations.

[268] COPERT | Calculations of Emissions from Road Transport

[269] Statistical pocketbook 2025 - Mobility and Transport - European Commission

[270] Homepage | European Alternative Fuels Observatory

[271] A detailed description of the model is available at https://www.astra-model.eu/

1. Population and social structure (age cohorts and income groups)
2. Economy (e.g. GDP, input-output tables, employment, consumption and investment both at aggregate and at sectoral level)
3. Foreign trade (inside EU and to partners from outside EU)
4. Transport (including demand estimation, modal split, transport cost and infrastructure networks)
5. Vehicle fleet (passenger and freight road vehicles by segment and drivetrain)
6. Environment (including air pollutant emissions, CO_2 emissions, energy consumption).

The economy module simulates the main economic variables. Some of these variables (e.g. GDP) are transferred to the transport generation module, which uses the input to generate a distributed transport demand.

The transport component is represented by means of two classical 4-stage transport models, one for passenger and one for freight transport, including endogenous feedback on all stages. Even if a full origin-destination matrix is not modelled, demand is segmented according to trip purpose and in different distance bands to better consider the competition between alternative modes. The transport network is not explicitly represented but information on network capacity is considered in a simplified way for the different transport modes drawing on the TRUST network transport model. In the transport module, demand is split by mode of transport. The traffic performance by mode is associated with the composition of the fleet (computed in the vehicle fleet module) and the emissions factors (defined in the environmental module), in order to estimate total emissions.

Several feedback effects take place in the ASTRA model. For instance, the economy module provides the level of income to the fleet module, in order to estimate vehicle purchase. The economy module then receives information on the total number of purchased vehicles from the fleet module to account for this item of transport consumption and investment. Furthermore, changes in the economic system feed into changes of the transport behaviour and alter origins, destinations and volumes of European transport flows.

The indicators that ASTRA can produce cover a wide range of impacts, in particular transport system operation, economic, environmental and social indicators. The environment module uses input from the transport module (in terms of vehicle-kilometres travelled per mode and geographical context) and from the vehicle fleet module (in terms of composition of vehicle fleets by type of powertrain), in order to compute fuel consumption, greenhouse gas emissions and air pollutant emissions from transport.

Strategic assessment capabilities in ASTRA cover a wide range of transport measures and investments with flexible timing and levels of implementation.

Geographically, ASTRA covers all EU Member States plus the United Kingdom, Norway and Switzerland. The model is built in the Vensim software and is developed and maintained by TRT, M-Five and ISI Fraunhofer.

The ASTRA model is a well-established model that has been used for numerous impact assessments in the energy, transport and climate action fields for the past 15 years. A dedicated version of the ASTRA model was developed by TRT and M-Five on behalf of JRC and is being used since 2013, when the first version was developed as part of the ASSIST project.

In the context of this impact assessment, the ASTRA model was used to estimate the impacts of the policy options on transport activity, CO_2 emissions, air pollutant emissions and other external costs of transport, as well as the impacts on user costs. To monetise the external costs, the unit values from the 2019 Handbook on the external costs of transport[272] have been used.

[272] Handbook on the external costs of transport - Publications Office of the EU

The baseline scenario of the ASTRA model has been calibrated on the PRIMES-TREMOVE results.

Data inputs

The main data sources for inputs to the ASTRA model, such as for activity and energy consumption, come from EUROSTAT databases and from the Statistical Pocketbook EU transport in figures[273]. Excise taxes are derived from DG TAXUD excise duty tables. Other data comes from different sources such as research projects (e.g. New Mobility Pattern projects) and reports. In the context of this exercise, the ASTRA transport model is calibrated to 2005, 2010, 2015 and 2020-2023 historical data. As explained above, the baseline scenario of the ASTRA model has been calibrated on the PRIMES-TREMOVE results.

1.3. Other inputs and ad hoc tools part of the assessment of impacts framework

As explained in section 1 of Annex 4, a suite of inputs and ad-hoc tools have been developed that feed into the ASTRA model. This is complemented by a cost module and a cost-benefit analysis (CBA) module as shown in Figure 8. More details on each component are provided below.

The assessment of impacts builds significantly on evidence from a 2024 Eurobarometer survey on ticketing[274] and the in-depth analysis of 100 origin-destination (OD) routes, conducted in the context of the impact assessment support study, as further explained below. In addition, **an expert workshop was organised to discuss the maximum potential modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms, and an additional stakeholders' workshop was organised to validate the inputs used for the policy options in the ASTRA model**.

1.3.1. Route clustering

To assess the extent to which EU passengers have access to alternative options for long-distance and regional travel, and whether the combinations of operators within transport modes or combinations between different transport modes are sufficient, an in-depth analysis of 100 representative transport routes, also known as origin-destination (OD) pairs, has been performed.

To select the 100 transport routes, given the large variety of possible routes to consider[275], priority was first given to identifying a balanced selection of high traffic routes that can be considered highly relevant for EU passenger transport. To do this, multiple data sources[276] were compiled into a list of high traffic routes and nodes in the EU using a NUTS3-to-NUTS3 approach. This step of the analysis also considered the relevance of OD pairs between capital cities[277].The most relevant routes for each mode were compiled into a preliminary list. These high traffic routes were then screened to ensure geographic diversity by removing any duplicate nodes and ensuring no two routes are part of the same NUTS2 - NUTS2 combination. This resulted in a list of 94 high-traffic OD routes. In a second step, to select a sample of lower traffic routes, a randomisation element has been used to remove bias from the route selection process: all cities with a population above 50,000 people were listed along with their relevant NUTS3 region and the output of the attractiveness analysis[278]. Node pairs were then randomised within two groups up to the target number of routes: attractive-

[273] Statistical pocketbook 2025 - Mobility and Transport - European Commission
[274] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024
[275] There are 1,165 NUTS3 regions in the EU resulting in about 1,350,000 origin-destination (OD) pairs. There are 244 NUTS2 regions in the EU resulting in about 59,500 origin-destination pairs.
[276] Eurostat Air Transport of Passengers, Eurostat National Railway Passenger Transport and Eurostat Maritime Passenger Statistics.
[277] About 700 cross-border combinations.
[278] *The attractiveness of origin or destination nodes* was assessed considering for each NUTS3 region the economic

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less attractive (moderate traffic, 270 routes), and less attractive-less attractive (low traffic, 90 routes). These two steps were combined to produce a long list of 454 routes. The Google Maps API was used to extract characteristics for each route in the long list, including the distance of the node pairs, modal options for the quickest route, and the number of connections required. This API only covers connectivity by land and sea, excluding flight options. Therefore, IATA data listing[279] of the location and size of airports globally was used to indicate whether a medium or large airport was within 50km of the origin or destination. If such an airport was present, it was assumed that the node was accessible by air. The long list was checked for duplicates, and for any similar routes that either began or ended in the same NUTS3 region or shared large proportions of the routes, with any such duplicate/similar routes removed. As a final step, 100 routes were shortlisted while ensuring the inclusion of routes with a diversity regarding the following factors: attractiveness (traffic)[280], geography[281], distance[282] and modal use[283]. The table below shows the 100 OD routes shortlisted.

Table 38: 100 EU transport routes selected for in-depth analysis

	Origin city	Origin country	Destination city	Destination country	Land/sea based distance (km)
Cluster A					
1	Barcelona	Spain	Palma	Spain	250 km
2	Freising / Munich	Germany	Hamburg	Germany	849 km
3	Copenhagen	Denmark	Aalborg	Denmark	466 km
4	Ingolstadt	Germany	Munich	Germany	80.3 km
5	Barcelona	Spain	Girona	Spain	94.6 km
6	Helsinki	Finland	Oulu	Finland	680 km
7	Hoorn	Netherlands	Amsterdam	Netherlands	40.2 km
Cluster B					
8	Paris	France	Nice	France	969 km
9	Catania	Italy	Rome	Italy	534 km
10	Athens	Greece	Thessaloníki	Greece	499 km
11	Messina	Italy	Reggio Calabria	Italy	10.6 km
12	Piraeus	Greece	Ermoúpolis	Greece	160 km
13	Busto Arsizio	Italy	Milan	Italy	35.3 km
14	Gdańsk	Poland	Wejherowo	Poland	37.1 km

attractiveness (as indicated by the GDP by NUTS3 region from Eurostat), personal attractiveness (as indicated by the number of bed places for tourism per NUTS3 region from Eurostat), and its status as a capital city. Threshold criteria were applied to designate certain NUTS3 regions as attractive. Either the regions needed to be a capital city or comply with both of the conditions of being attractive for business purposes and personal purposes. A region was defined as attractive for business purposes if: (i) GDP in absolute terms was higher than EUR 18.75 billion per year (i.e. the average GDP per NUTS3 region at EU level (EUR 15 billion per year) plus a 25% uplift to avoid all NUT3 regions being classified as 'attractive' within some Member States), or; (ii) GDP per inhabitant is larger than the national average by 50% AND GDP in absolute terms is larger than the average GDP per region (average GDP per region = national GDP / number of regions). A region was defined as attractive for personal purposes if: (i) the number of bed places in absolute terms in that region is higher than 31,250 (i.e. the average number of bed places per NUTS3 region at EU level (25,000) plus a 25% uplift to avoid all NUT3 regions being classified as 'attractive' within some Member States), or; (ii) the number of bed places per inhabitant per region is 50% or higher than the national average.

[279] https://ourairports.com/data/

[280] A target ratio of routes was set between high, moderate and low traffic routes as proxied through 'attractiveness'. Taking into account the population data and the attractiveness of each NUTS3 region, the analysis indicates that 4-26% of the EU population may be living and traveling between two 'less attractive' NUTS3 regions. Given that the 'highly relevant' routes are specifically identified as carrying more passengers, a 40/45/15 target split has been used for high/moderate/low traffic routes.

[281] A targeted distribution of routes between Member States was set based on the proportion of total EU passenger traffic passing through each Member State, as indicated by Eurostat data (road_pa_mov).

[282] A range of route distances was targeted, with a preference towards shorter routes (reflecting the most common routes performed by EU travellers).

[283] A target distribution transport mode availability was set based on the modal split for EU passenger traffic, as indicated by Eurostat data (tran_hv_ms_psmod).

	Origin city	Origin country	Destination city	Destination country	Land/sea based distance (km)
15	Khalándrion	Greece	Athens	Greece	17.0 km
16	Luleå	Sweden	Stockholm	Sweden	934 km
17	Dubrovnik	Croatia	Split	Croatia	270 km
18	Dublin	Ireland	Drogheda	Ireland	52.2 km
19	Riga	Latvia	Valmiera	Latvia	117 km
20	Vilnius	Lithuania	Kaunas	Lithuania	103 km
Cluster C					
21	Paris	France	Madrid	Spain	1,731 km
22	Palma	Spain	Düsseldorf	Germany	1,814 km
23	Rome	Italy	Barcelona	Spain	1,536 km
24	Budapest	Hungary	Madrid	Spain	3,065 km
25	Tallinn	Estonia	Helsinki	Finland	85.9 km
26	Helsinki	Finland	Stockholm	Sweden	488 km
27	Busto Arsizio	Italy	Barcelona	Spain	1,081 km
28	Amsterdam	Netherlands	Rome	Italy	1,615 km
29	Frankfurt am Main	Germany	Vienna	Austria	768 km
30	Sofia	Bulgaria	Vienna	Austria	1,002 km
31	Luxembourg	Luxembourg	Porto	Portugal	1,991 km
32	Copenhagen	Denmark	Hamburg	Germany	473 km
33	Prague	Czech Republic	Vienna	Austria	332 km
Cluster D					
34	Trbovlje	Slovenia	Zagreb	Croatia	192 km
35	Bratislava	Slovakia	Prague	Czech Republic	396 km
36	Cluj-Napoca	Romania	Budapest	Hungary	584 km
37	Paris	France	Lisbon	Portugal	2,651 km
38	Lyon	France	Turin	Italy	249 km
39	Paris	France	Porto	Portugal	2,604 km
40	Dublin	Ireland	Paris	France	1,041 km
41	Lisbon	Portugal	Brussels	Belgium	1,980 km
42	Bucharest	Romania	Vienna	Austria	1,133 km
43	Brussels	Belgium	Rome	Italy	1,770 km
44	Vilnius	Lithuania	Warsaw	Poland	506 km
45	Trbovlje	Slovenia	Paris	France	1,356 km
Cluster E					
46	Gijón	Spain	Córdoba	Spain	835 km
47	Vejle	Denmark	Roskilde	Denmark	215 km
48	El Ejido	Spain	Moratalaz	Spain	464 km
49	Kraków	Poland	Wrocław	Poland	264 km
50	Pori	Finland	Rovaniemi	Finland	843 km
51	Lippstadt	Germany	Eschweiler	Germany	223 km
52	Zaandam	Netherlands	Oss	Netherlands	119 km
53	Zaanstad	Netherlands	Almelo	Netherlands	180 km
Cluster F					
54	Verviers	Belgium	Sint-Niklaas	Belgium	206 km
55	Rijeka	Croatia	Zagreb	Croatia	174 km
56	Split	Croatia	Pula	Croatia	685 km
57	Prievidza	Slovakia	Martin	Slovakia	81.7 km

	Origin city	Origin country	Destination city	Destination country	Land/sea based distance (km)
58	Prešov	Slovakia	Bratislava	Slovakia	440 km
59	Limerick	Ireland	Galway	Ireland	280 km
60	Riga	Latvia	Jelgava	Latvia	42.8 km
61	Zalaegerszeg	Hungary	Szeged	Hungary	454 km
62	Galátsi	Greece	Irákleion	Greece	450 km
63	Brussels	Belgium	Roeselare	Belgium	118 km
64	Grudziądz	Poland	Płock	Poland	180 km
65	Liberec	Czech Republic	Opava	Czech Republic	472 km
66	Bucharest	Romania	Turda	Romania	564 km
67	Halmstad	Sweden	Täby	Sweden	615 km
68	Klaipėda	Lithuania	Kaunas	Lithuania	225 km
Cluster G					
69	Tourcoing	France	Dordrecht	Netherlands	239 km
70	Bonn	Germany	Ostend	Belgium	370 km
71	Bergisch Gladbach	Germany	Žilina	Slovakia	1,170 km
72	Leiden	Netherlands	Tarbes	France	1,379 km
73	Sundsvall	Sweden	Odense	Denmark	1,169 km
74	Saint-Malo	France	Kaiserslautern	Germany	902 km
75	Innsbruck	Austria	Grenoble	France	724 km
76	Livorno	Italy	Kempten (Allgäu)	Germany	860 km
77	San Severo	Italy	Lleida	Spain	1,794 km
78	Luxembourg	Luxembourg	Orléans	France	531 km
Cluster H					
79	Haskovo	Bulgaria	Sassari	Italy	2,603 km
80	Mérignac / Bordeaux	France	Matera	Italy	2,384 km
81	Budapest	Hungary	Padova	Italy	1,104 km
82	Stalowa Wola	Poland	Varna	Bulgaria	2,046 km
83	Narva	Estonia	Como	Italy	2,888 km
84	Olbia	Italy	Volos	Greece	2,410 km
85	Slobozia	Romania	České Budějovice	Czech Republic	1,724 km
Cluster I					
86	Gummersbach	Germany	Fulda	Germany	338 km
87	Cottbus	Germany	Bremerhaven	Germany	575 km
88	Bayreuth	Germany	Aalen	Germany	221 km
89	Sliven	Bulgaria	Shumen	Bulgaria	194 km
90	Szczecin	Poland	Białystok	Poland	690 km
91	Łódź	Poland	Tarnów	Poland	350 km
92	Botoşani	Romania	Buzău	Romania	448 km
Cluster J					
93	Schweinfurt	Germany	Vigevano	Italy	940 km
94	Seinäjoki	Finland	Mülheim	Germany	2,377 km
95	Tübingen	Germany	Tulcea	Romania	2,144 km
96	Albi	France	Flensburg	Germany	2,228 km
97	Bad Salzuflen	Germany	Pardubice	Czech Republic	868 km
98	Crotone	Italy	Schwerte	Germany	2,147 km
99	Lahti	Finland	Jönköping	Sweden	987 km
100	Pardubice	Czech Republic	Nyíregyháza	Hungary	820 km

Source: Ricardo et al. (2026), Impact assessment support study

The in-depth analysis of the 100 transport routes shows that:

- For waterborne and land-based travel, multimodal connections were possible in 76 out of the 100 assessed routes (76%) when booking directly through operators. The lack of multimodal booking functionality in MDMS could therefore be argued to limit options for consumers in 76% of routes.
- MDMS platforms missed rail or coach connections in 32 out of 83 cases (39%) where such connections were possible through direct operator booking (in 17 cases no land-based routes were identified).
- Booking directly via operators provided faster connections than those available in an MDMS platform in 17% of the waterborne and land-based assessed routes. This is strong evidence supporting the fact that travellers cannot see all options available to them on MDMS platforms, and that these missed options are sometimes faster, implying that travellers may be making suboptimal travel decisions.
- In 29 out of the 100 pairs assessed (29%), it was not possible to see a train connection in the MDMS platform where one was available on the website of the operator(s). This problem seems to be slightly more concentrated in domestic routes (17 of 29 instances). The problem also persists in coach travel, although to a lesser extent (7 out of 100, or 7%). This is indicative that platforms are not displaying all possible operators, which could be reflective of uneven access.
- Out of 100 OD pairs, direct bookings offered cheaper connections in 34 cases (34%). Among these, direct train bookings were cheaper in 19 pairs, while direct coach bookings were cheaper in 12 pairs. Additionally, in 22 of the 34 cases, a multimodal option was cheaper through direct booking (note that various modes can be cheaper within the same OD pair, so these numbers do not total to 34). However, it must be stressed that the cost data collected directly via operator websites was for a point further in the future (Wednesday 17th September 2025) than the costs extracted from Omio (Wednesday 16th July 2025). This limits the comparability of the results, since tickets booked further in advance are typically priced cheaper by operators to encourage smoothing of expected demand. It is therefore likely that the indicated proportion of routes where MDMS are not showing the cheapest connections is overestimated. Moreover, comparisons in costs were only directly available in 56/100 of the OD pairs, bringing into question the representativeness of the sample in an already targeted selection of 100 OD pairs.
- A separate set of conclusions is presented for flights given limitations to the analysis in this mode. Firstly, in order to create comparability with land- and sea-based forms of travel, it is necessary to account for the considerable time spent at airports checking in and going through security. Therefore, two hours of additional time has been assumed for this, applied to both the direct booking and MDMS channels, although this will vary in reality based on passenger attitudes towards risk of delays and recommendations from each airport and service carrier. Secondly, it should be stressed that Omio only considers the time spent in flight and waiting between connections for their estimated time duration. It was therefore necessary to assume some additional time needed to travel to/from the airport for the Omio results only. An average of two hours was assumed in each case, additional to the two-hour check-in time noted above; one hour to get to the origin airport, and another hour to reach the city centre from the destination airport. Finally, it should be noted that Omio is more focussed on land-based travel while other platforms that focus more on air travel might have found improved air offerings (e.g. Edreams or Etraveli).
- In 16 out of 100 OD pairs (16%), land-based transport modes remained competitive with air travel, offering journey durations that were within ±20% of flight travel time.
- In 33 out of 100 OD pairs (33%), MDMS failed to identify bookings that were available directly via operators. This suggests that direct airline booking platforms may offer a broader range of flight connections than those aggregated by MDMS, highlighting a potential gap in coverage for air travel options on the platform.
- In 32 out of 100 OD pairs (32%), direct booking flights were found to be faster than the options listed on Omio. This suggests that direct operator bookings can also offer significant time savings compared to

MDMS.

Clusters of routes were further defined in the context of the impact assessment support study, based on the 100 representative EU transport routes. These clusters are used in the analysis of impacts of the policy measures on modal shift in the *Multi Parameter Analysis (MPA) module*. The clusters allow to consider the fact that policy measures may have different impacts on modal shift depending on the characteristics of routes where MDMS may be deployed. They capture differences between routes with complex transport choices, including multimodal and multi-operator combinations, and those with simpler transport choices, as the latter would be expected to benefit less from MDMS. In addition, some policy measures only affect specific transport modes (e.g. rail), and/or situations where there is no competition between MDMS platforms or transport operators. The clusters are representative of the scope of routes relevant for this impact assessment (i.e. regional, national long-distance and international) for the extrapolation of results at Member State and EU level.

The following three criteria were used to define the clusters, that are presented in the table below:

- **Journey type:** This criterion ensures that the differentiated impacts between national and international routes (including cross-border) are captured. Only inter-NUTS3 trips are considered.
- **Member State advancement on MDMS**: This criterion ensures that the differentiated impacts between Member States with different levels of MDMS market maturity are captured. Member States are grouped into three categories based on the availability of platforms and the number of users: leaders, planned adopters, and followers. It should however be noted that planned adopter/follower groups exhibit similar behaviour. Conversely, policy measures that encourage competition among platforms and/or transport operators are likely to impact leaders and planned adopters/followers differently: (i) in leader Member States, enforcing fair data practices and limiting the power of platforms/operators with significant market presence may be more effective, given the availability of other national platforms with similar functionality that could capture the market share; (ii) in planned adopter/follower Member States, the effect may be limited, as alternatives for platform substitution are scarce (such as in Malta and Cyprus), or the user base is insufficient to foster significant growth in a competitor platform (such as in Belgium), or both (such as in Hungary).
- **Attractiveness of origin or destination nodes**: This criterion is selected as a proxy of the route's characteristics, availability of connections, competition between operators, and attitude of passengers, which can contribute to the differentiated impacts of the policy measures. A more attractive route, involving higher demand, is likely to have more transport options available and more complex choices, so there might be a higher added value of MDMS platforms for such route. NUTS3 regions were grouped into 'Attractive' and 'Moderately attractive' based on their economic output (GDP) and touristic attractiveness (number of bed places for tourism), with routes categorised according to the combination of origin and destination at NUTS3 level.

Table 39: Clusters of OD routes used in the modelling framework

Cluster ID	Journey type	Member State advancement on MDMS	OD node attractiveness
A	National	Leader	Both attractive
B	National	Planned adopters and followers	Both attractive
C	International	At least one leader	Both attractive
D	International	Planned adopters and followers	Both attractive
E	National	Leader	Hybrid[284]
F	National	Planned adopters and followers	Hybrid
G	International	At least one leader	Hybrid
H	International	Planned adopter and followers	Hybrid
I	National	Any	Both moderately attractive

[284] Hybrid represents the situation where one node is attractive and one is moderately attractive.

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Cluster ID	Journey type	Member State advancement on MDMS	OD node attractiveness
J	International	Any	Both moderately attractive

Source: Ricardo et al. (2026), Impact assessment support study

The grouping of the Member States according to the advancement on MDMS (leaders, planned adopters, and followers) was performed based on the number of platforms that offer relinking or direct booking functionality and the 2024 Eurobarometer results on the percentage of consumers using digital channels to book travel as a proxy for usage[285], in the absence of other data. Analysis was then performed in the context of the impact assessment support study to understand which Member States performed better than the EU average on both metrics. Seven Member States, simultaneously having greater than average platform availability and user base (DE, AT, DK, LU, FI, ES, NL), were included in the 'leaders' group in terms of MDMS market maturity. Ten Member States, having both low platform availability and a low user base (HR, LT, HU, SE, CZ, IE, SI, LV, RO, SK), were included in the 'follower' group in terms of MDMS market maturity. The remaining Member States, that had *either* many platforms *or* a large user base, but not both were included in the 'planned adopter' group.

Table 40: Categorisation of EU Member States into levels of MDMS advancement

Member State	MDMS advancement
Germany	Leader
Austria	Leader
Denmark	Leader
Luxembourg	Leader
Finland	Leader
Spain	Leader
Netherlands	Leader
France	Planned adopter
Poland	Planned adopter
Italy	Planned adopter
Belgium	Planned adopter
Portugal	Planned adopter
Malta	Planned adopter
Cyprus	Planned adopter
Greece	Planned adopter
Bulgaria	Planned adopter
Estonia	Planned adopter
Croatia	Follower
Lithuania	Follower
Hungary	Follower
Sweden	Follower
Czechia	Follower
Ireland	Follower
Slovenia	Follower
Latvia	Follower
Romania	Follower
Slovakia	Follower

Source: Ricardo et al. (2026), Impact assessment support study

1.3.2. Multi Parameter Analysis (MPA) module

As explained in section 1 of Annex 4, the MPA module assesses how the completeness and accuracy of service information and the ability to book service offerings could contribute towards the maximum potential modal

[285] In particularly, responses to question 6 were used "How do you (or would you) usually book your regional or long-distance journeys? Select all that apply. [MULTIPLE ANSWERS]".

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shift and maximum potential journey time reduction due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms in each policy option.

The effect of policy measures included in each policy option are first scored on a set of identified qualitative parameters (QPs), which are weighted in terms of their contribution, to estimate the progress towards the maximum potential. The scoring is then combined with the maximum potential modal shift and maximum potential journey time reduction due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms, to derive the level of modal shift and journey time reduction for each cluster in each policy option. The outputs of the MFA module are then used as inputs in the Interface module.

The sections below provide a description of the parameters used, explain the way the maximum potential modal shift and maximum potential journey time reduction due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms are derived, and explain the scoring logic and the MPA outputs.

1.3.2.1. Qualitative parameters selected for the MPA module

The qualitative parameters (QPs) selected for the MPA module, based on the impact assessment support study, are the ones most relevant for the impacts of the policy measures on passengers' modal choice. Many factors affect the modal choice. The starting point is to identify and select the QPs that contribute to modal shift and at the same time are expected to change due to the proposed policy measures. The impacts must be assessed for each policy measure and cluster route combination (15 policy measures x 10 cluster routes = 150 scores). Therefore, the most important qualitative parameters are retained, to keep the analysis manageable.

The following steps have been followed for identifying the most important qualitative parameters:

- Identify a long list of factors affecting modal choice and screening their relevance for the policy measures;
- Rank the factors according to their importance for travel decisions;
- Group the most important factors into two qualitative parameters retailed for the analysis.

Identify a long list of factors affecting modal choice and screening their relevance for the policy measures

Table 41 presents the most cited factors affecting modal choice in the literature, mirroring those asked to consumers as part of the 2024 Eurobarometer survey[286]. In the first step, in the context of the impact assessment support study, these factors were screened to identify the ones mostly likely affected by the policy measures.

Rank the factors according to their importance for travel decisions

In the second step, for the factors selected that influence modal choice, the results of the 2024 Eurobarometer survey were analysed to identify the significance EU travellers place on each factor (for the cases where the response wording could be aligned to the factor in question). Question 7 (Q7), question 11 (Q11), and question 14 (Q14) of the 2024 Eurobarometer survey were considered most pertinent, as they tackle the obstacles consumers encounter in increasing the use of multimodal solutions: booking online, booking multiple transport modes, or combining two or more rail segments, for each respective question. The policy measures under assessment represent a way to address some of these obstacles.

Table 42 provides a mapping of parameters against their stated importance in the Eurobarometer survey, indicated by the frequency of responses. It includes the distribution of all possible responses, excluding "Don't

[286] Flash Eurobarometer 551 - Multimodal Digital Mobility Service – August – September 2024

know". In instances where responses could be connected to multiple factors influencing modal choice, the second factor is displayed in italics.

Travel time, price and information provision were seen as the most important factors preventing higher use of multimodal solutions based on the results of the assessed Eurobarometer questions (Q7, Q11 and Q14). Travel Time and Price were the most cited barriers by respondents, appearing regularly in the top three barriers (excluding responses such as "it was not needed", or "none of these"). Travel Time was seen as a barrier by 19-22% of respondents, while Price was a barrier for 13-19% of the respondents. Information Provision was among the top 3rd or 4th common answers, being seen as a barrier by 14-15% of respondents.

The impacts on travel time and price are generally best considered as direct inputs in the ASTRA model and not further considered in the MPA module. This is specifically the case of impacts on travel time in the context of this impact assessment. The impacts on prices are not considered as inputs in ASTRA because of the reasons explained below:

- A limited number of OD pairs showed possible price savings (23/100 compared to 31/100 for travel time savings) indicating a limited potential for price benefits;
- Price benefits were often presented as a trade-off to significant travel time benefits in passengers' journey decisions. In many cases, more modal options will not lead to simultaneous improvements in travel time and price. For example, traveling by air or high-speed rail is usually faster than driving or using a combination of other land-based collective modes (e.g. conventional rail, coach) but often comes at additional cost. Each route displays unique trade-offs for passengers, given their willingness to spend money to reduce travel time and the availability of mode combinations for each route. MDMS platforms could facilitate price improvements through two channels: (a) making passengers aware of cheaper options within the same mode, or (b) making passengers aware of cheaper options in other modes or mode combinations. Only the latter would result in modal shift if it would be sufficient to change passenger decisions. It would not reduce ticket prices within the mode but through the transfer of transport activity from one mode to another.

For the reasons above, the impacts on travel time are used as direct inputs in the ASTRA model while the impacts on user costs are assessed based on the changes in average expenditure per person for interurban mobility resulting from the modal shift. Neither the travel time nor the price are further considered part of the qualitative parameters of the MPA module.

Ease of transfers/interchanges was the next most common barrier to multimodal travel, closely linked to *Reliability*. The response "I did not want to buy several separate tickets and risk being stranded if I miss a connection" was the 5th most common barrier cited to multimodal travel and 4th for rail-rail travel. It is seen as a barrier by about 13% of respondents. Fears of a missed connection could be motivated by short connections (aligning to Ease of Transfers/Interchanges) and/or delays to prior legs (aligning more to Reliability). Therefore, both are retained for further consideration.

Convenience, including ease of booking, was a relatively less important barrier to booking online and/or booking multimodal travel. Only 4-11% of respondents felt this as a barrier. However, given the importance of the factor for the rail sector and its relevance for the policy measures, it was retained for further consideration.

Accessibility was identified as a barrier of relatively lower importance (4-7% of respondents). The response "I did not know where to search for such travel information" was attributed to Accessibility. It could have however also been attributed to Information Provision or Convenience given that it relates to the ease of accessing *information,* rather than the availability of the transport service itself. This factor was discarded because of its lower importance and other linked factors.

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Table 41: Long list of factors affecting modal choice and screening of their relevance for the policy measures

Factors affecting modal choice	Definition	Relevant policy measures	Justification
Travel Time	The time spent for the entire door-to-door travel	Direct: PM11-PM15 Indirect: PM1-PM4	Specific obligations to prevent restrictive agreements (PM11-PM12) or enter agreements with willing counterparts (PM13-PM15) could lead to options being made available to consumers that may have lower total travel time. Fair treatment in B2B data sharing (PM1-PM4) could also indirectly lead to more options being made available to consumers.
Reliability	How closely the actual service matches the route timetable	Indirect: PM6, PM11-PM15	Policies promoting fair competition between MDMS platforms and operators (PM11-PM15) and related enforcement (PM6) could indirectly lead to improved accuracy of advance planning and real-time information provided to consumers.
Accessibility	The degree to which public transport is reasonably available to as many people as possible	Indirect: PM7	PM7 could enable public authorities to support the optimization of transport planning and enhance access to more consumers.
Price	The monetary cost of travel	Direct: PM11-PM15 Indirect: all	Prevention of highly restrictive clauses (PM11-PM12) and obligations to sell/host (PM13-PM15) could allow smaller or new entrant operators with cheaper offers to display on more platforms (prohibition of exclusivity) and/or reduce the costs operators face in being displayed on MDMS platforms, with cost savings potentially passed onto consumers. Other new costs of regulatory compliance could also be passed on.
Frequency	How often the service operates during a given period	Indirect: PM13-PM14	No direct effect is anticipated on the frequency of services offered by one operator (the traditional interpretation of frequency). However, obligations to sell or host (PM13-PM14) may increase the *perceived* number of transport options available to consumers in one place by facilitating access to offerings across modes and across operators.
Information Provision	How much information is provided about routes and interchanges	Direct: PM8, PM13-PM14 Indirect: PM1-PM4, PM11-PM12	Mandating display of GHG/CO2 emissions data (PM8) adds additional trip-related information that may otherwise not be available to consumers. Likewise, obligations for rail operators to sell tickets via MDMS (PM13) or MDMS platforms to enable ticket sales from all operators (PM14) will increase information availability on relevant routes. Removal of highly restrictive clauses could increase information on formerly restricted operators (PM11-PM12), while policies impacting B2B data accuracy transfer (PM1-4) could allow businesses to see more journey information, which they could pass onto end consumers.
Ease of Transfers /Interchanges	How simple transport connections are, including time spent waiting	Indirect: PM11-PM14	Specific obligations to prevent restrictive agreements (PM11-PM12) or enter agreements with willing counterparts (PM13-PM14) could lead to identification of alternative operator options that could simplify connections or reduce time spent waiting.

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Factors affecting modal choice	Definition	Relevant policy measures	Justification
Vehicle Condition	The physical and mechanical condition of vehicles	N/A	The policies do not address vehicle maintenance or quality.
Comfort	How comfortable the journey is regarding noise levels, air conditioning, etc.	N/A	The policies do not address passenger comfort.
Safety	How safe from traffic accidents passengers feel during the journey as well as personal safety	N/A	The policies do not directly address passenger safety. However, they could have an indirect impact on passenger safety through changes in transport activity.
Convenience	How simple the transport service is to use and how well it adds to one's ease of mobility	Direct: PM1, PM7, PM13, PM14	Interpreting this factor to include the ease of booking and availability of travel information underway, specific obligations to prevent restrictive agreements (PM11-PM12) or enter agreements with willing counterparts (PM13-PM14) enable consumers to purchase tickets from a wider range of operators on a wider range of platforms, selecting the combination which is most convenient for them.
Aesthetics	Appeal of vehicles, stations, and waiting areas to users' senses	N/A	The policies do not influence the visual appeal, cleanliness, or design of transport facilities.

Source: Ricardo et al. (2026), Impact assessment support study, based on the 2024 Eurobarometer survey and literature review[287,288]

Table 42: Mapping of factors affecting modal choice against responses to the 2024 Eurobarometer survey (top responses highlighted in orange)

Factors affecting modal choice	Ranking (frequency of responses as % of the total) – '*specific response text*'		
	Barriers to booking online (Q7)	**Barriers to combining different collective transport modes and transport operators within one mode (Q11)**	**Barriers to combining two or more rail legs, operated by different rail operators (Q14)**
Travel Time	N/A	2nd (22%) – "The journey would have taken too long"	2nd (19%) – "The journey would have taken too long"
Reliability	N/A	N/A	N/A

[287] https://www.sciencedirect.com/science/article/abs/pii/S0967070X12001692?via%3Dihub
[288] https://cedelft.eu/wp-content/uploads/sites/2/2021/03/CE_Delft_4S52_Modal_choice_criteria_in_rail-transport_Def.pdf

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Factors affecting modal choice	Ranking (frequency of responses as % of the total) – '*specific response text*'		
	Barriers to booking online (Q7)	**Barriers to combining different collective transport modes and transport operators within one mode (Q11)**	**Barriers to combining two or more rail legs, operated by different rail operators (Q14)**
Accessibility	N/A	6th (6%) – "I never thought about it, did not know it was possible" 7th (4%) – "I did not know where to search for such travel information" *[possible overlaps with Convenience & Information Provision]*	6th (7%) – "I did not know where to search for such travel information" 7th (6%) – "I never thought about it, did not know it was possible" *[possible overlaps with Convenience & Information Provision]*
Price	2nd (19%) – "Concerns about hidden costs" 5th (14%) – "Concerns about the availability of all fares, including special offers" *[possible overlap with Information Provision]*	3rd (17%) – "It would have been more expensive"	5th (13%)– "It would have been more expensive"
Frequency	N/A	N/A	N/A
Information Provision	4th (14%) – "Concerns about completeness of information provided online" 8th (10%) - "Concerns about availability of all alternative travel options"	4th (14%) – "I could not find a suitable combination" *[possible overlap with Frequency]* 9th (2%) – "It would have been less environmentally friendly"	3rd (15%) – "I could not find a suitable combination" *[possible overlap with Frequency]*
Ease of Transfers/Interchanges	N/A	5th (12%) – "I did not want to buy several separate tickets and risk being stranded if I miss a connection" *[possible overlap with Reliability]*	4th (13%) – "I did not want to buy several separate tickets and risk being stranded if I miss a connection" *[possible overlap with Reliability]*
Convenience	7th (11%) – "Websites or apps to book journeys are difficult to use"	8th (4%) – "I could not buy all the tickets I needed in one place"	8th (6%) – "I could not buy all the tickets I needed in one place"

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Factors affecting modal choice	Ranking (frequency of responses as % of the total) – '*specific response text*'		
	Barriers to booking online (Q7)	**Barriers to combining different collective transport modes and transport operators within one mode (Q11)**	**Barriers to combining two or more rail legs, operated by different rail operators (Q14)**
Other	1st (36%) – "None of these" 3rd (15%) – "Concerns that it may not be easy to reach a customer support service online" 6th (14%) – "Concerns about protection of personal information provided during the online booking process".	1st (29%) – "It was not needed (one transport service/operator brought me to my destination)" 10th (8%) – "Other"	1st (42%) – "It was not needed (one rail operator brought me to my destination" 9th (5%) – "Other"

Source: Ricardo et al. (2026), Impact assessment support study; Ricardo analysis based on the 2024 Eurobarometer survey. Note: Excludes "Don't know" responses

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Group the most important factors into two qualitative parameters retailed for the analysis

To keep the analysis manageable, two qualitative parameters (QP) are retained for further analysis in the MPA module: the completeness and accuracy of service information (QP1), and the ability to book service offerings (QP2). They are designed to differentiate between the quantity and quality of information provided on MDMS platforms (QP1) and the capacity to access and book services based on that information (QP2). The weighting between these two qualitative parameters is equal within the MPA[289].

Table 43: Qualitative Parameters (QPs) selected for analysis in the MFA

Qualitative parameter	Indicator	Explanations
QP1: Completeness & accuracy of service information.	The degree to which all offerings are possible to see on an MDMS platform and such information accurately reflects real-world operations.	This QP is linked to Information Provision as a parameter addressing both the completeness and accuracy of information provided to consumers on MDMS platforms. This can have an impact on modal choice.
QP2: Ability to book service offerings.	The degree to which consumers can book any convenient multimodal travel options that are visible on an MDMS platform.	This QP relates to Convenience in giving consumers the ability to book from more operators through a single MDMS platform. *(This is also less closely linked to Ease of Transfer/Interchanges and Reliability in creating the ability to book journeys with lower waiting times and/or lower risk of missed connections.)*

Source: Ricardo et al. (2026), Impact assessment support study

1.3.2.2. Maximum potential modal shift and the modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms in the policy options assessed

Maximum potential modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms

The evidence used for deriving the maximum potential modal shift (upper bound impact)[290] due to the ability to see all rail offerings on MDMS platforms[291] and the ability to book all visible travel options on MDMS platforms in the context of the impact assessment support study, draws on:

- Literature review;
- Targeted survey and interviews;
- Expert workshop;
- Eurobarometer survey.

The *literature review* assessed the modal shift potential of introducing high-speed rail[292], demand-responsive

[289] Literature (CE_Delft_4S52_Modal_choice_criteria_in_rail-transport_Def.pdf; Substitutiemogelijkheden van luchtvaart naar spoor | Kennisinstituut voor Mobiliteitsbeleid) suggests that the most important parameters vary across modes. Considering the cross-modal nature of the analysis and the bundling of the factors into QPs, equal weighting was used to remain agnostic between the two qualitative parameters.

[290] For the purposes of this analysis the modal shift is defined as a shift from air and road transport to other collective modes of transport.

[291] Providing such information is complete and accurate.

[292] E.g. https://transweb.sjsu.edu/sites/default/files/1223-modal-shift-high-speed-rail-literature-review.pdf

transport[293], or Mobility-as-a-Service (MaaS)[294] in urban settings. For the Spanish high-speed market, research showed that 10% of the high-speed rail trips sold on an independent platform would otherwise be made using a different mode of transport[295]. The *targeted survey and interviews* provided qualitative assessments on the direction of travel for modal shift, but no quantitative estimates.

Expert workshop

A small group of Member State representatives, travel experts and consumer organisations were invited to participate in an expert workshop in the context of the impact assessment support study. A Delphi-like approach was used at the workshop. Participants were asked to complete a six-question survey on the maximum potential for modal shift due to ability to see all offerings on an MDMS platform (and such information is complete and accurate) and the ability to book all visible travel options on an MDMS platform before the workshop. The results were presented during the workshop, and discussions were held on the results.

Another survey was organised via Mentimeter at the end of the workshop, to gather the revised views of attendees on the maximum potential for modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms. The questions and results are shown below.

"For each of the four clusters, in your view what is the **maximum possible impact on modal shift** that could arise compared to the current situation if passengers were given:

1. The ability to see all offerings on an MDMS platform, and such information is complete and accurate (assuming no changes in ability to book all visible travel options)? **(QP1)**

2. The ability to book all visible travel options on an MDMS platform (assuming that the level of information on the platform remains the same as it is currently)? **(QP2)**

3. A combination of (1) and (2) above, meaning (i) complete and accurate information and (ii) the ability to book all visible travel options, on an MDMS platform? **(QP1+QP2)**"

Table 44: Results of the Mentimeter poll taken during the impact workshop

Response options	Number of responses		
	Q1	Q2	Q3
Very high impact (>10%)	2	0	1
High impact (5-10%)	3	3	3
Moderate impact (2-5%)	6	4	2
Low impact (0-2%)	0	2	0
No impact (0%)	0	0	0
Negative impact (-%)	0	0	0
Total responses	11	9	6
Weighted average modal shift*	**5.8%**	**4.3%**	**6.6%**

*Source: Ricardo et al. (2026), Impact assessment support study; Note: *Calculated by taking the midpoint of each range of modal shift options as laid out in the response options. For 'Very high impact (>10%)', this was assumed at 10% as a conservative estimate.*

[293] E.g.https://www.transport.gov.scot/publication/strategic-business-case-transport-appraisal-report-draft-appendix-c-preliminary-appraisal-summary-tables-a96-corridor-review/preliminary-appraisal-summary-table-investment-in-demand-responsive-transport-and-mobility-as-a-service/
[294] E.g. https://www.itf-oecd.org/sites/default/files/docs/integrating-public-transport-maas.pdf
[295] Conclusions_CRA_Incrementality_through_mobility_platforms_in_Spain_1.pdf

These figures were interpreted to represent a midpoint of the instances where potential for modal shift could be very high and very low, with the range corresponding to the route clustering criteria, based on discussions at the workshops. Relating to Q1, participants noted that potential for modal shift would be much higher on routes where travel time is more comparable between rail and air, but people do not find competitive rail options. On the other hand, on long-distance routes where air is the only convenient option, the potential for shift to rail would be much lower or zero. Overall, the potential for modal shift was assessed to be higher under QP1 than under QP2. When combined, the impact would be higher but not fully additive.

As regards the robustness of these results, the workshop was attended by approximately 20 Member State experts and a couple of multimodal transport experts. However, only a maximum of 11 votes were received during the survey. Due to the low number of participants, these results cannot be regarded as representative. Moreover, participants indicated the difficulty to derive a modal shift potential linked to the ability to see all offerings on an MDMS platform (and such information is complete and accurate) and the ability to book all visible travel options on an MDMS platform, since there have been little relevant applications of similar initiatives that could allow to deduct lessons. Based on the discussions during the workshop and the voting of the experts, an average modal shift potential of around 5% was identified. This represents a 5% increase in the number of journeys performed by rail and coach at the expense of journeys by air and car.

Eurobarometer survey

To complement the views of experts, the results of the 2024 Eurobarometer survey provided, through the analysis of responses, an understanding of the potential magnitude of expected impacts on modal shift. In particular, it showed that:

- While the majority of respondents (76%) indicated that they book tickets online, only a minority of them (26%) do so after comparing travel options and prices (Question 6).

- Costs (61%) and travel duration (47%) are the most important factors when planning a regional or long-distance journey, and while the initiative will not directly affect these, it might indirectly affect the perception of these two factors, as a more complete availability of travel information may unveil better travel options to passengers. The ease of finding travel options (17%) and ease of booking tickets (16%) are considered relatively important factors when planning regional and long-distance trips (Question 3). These can be directly improved by the policy measures introduced.

- Amongst the most important factors deterring passengers from booking tickets online (Question 7), are: the completeness of information (14%), the availability of all relevant fares (14%) and the ease of booking via websites and apps (10%). As mentioned earlier, these are factors the initiative is intending to affect.

- One factor limiting the combination of transport modes and operators for regional and long-distance journeys is the inability to find such combinations (Question 11).

Since the main potential of the initiative lies in improving how complete and accessible information is for passengers, as well as enhancing their ability to book tickets through MDMS platforms, it can be inferred that it may strengthen key factors involved in planning regional and long-distance journeys. In addition, better information, greater accuracy, and improved booking functionality could remove existing barriers to choosing more sustainable mobility options for a segment of EU passengers. Based on responses to Question 11, a full removal of these barriers could encourage a certain share of transport users to undertake more multimodal and multi-operator trips. It is important to note that the responses to Question 11 reflect only a subset of the surveyed, since:

- Question 11 was directed only to respondents who had previously indicated (in Question 8) that they never or rarely combine different collective transport modes and never or rarely combine different operators within the same mode.

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- Respondents who stated in Question 11 that multimodal and multi-operator options were not needed (to reach their destination) were excluded from the assessment.

Taking this into account, the percentage of all respondents that cited these barriers was calculated:

- Inability to find suitable combinations (5.7%); lack of knowledge of relevant possibility (2.3%); lack of knowledge of where to search for such information (1.8%); inability to buy all tickets in one place (1.7%).

These shares are not to be seen as being necessarily cumulative as multiple response were possible in Question 11. Nevertheless, very few respondents combined these answers (for example, someone who didn't even know it was possible is unlikely to cite one of the other barriers), and the percentage of travellers that cited at least one of these barriers is 8.8%. Still, translating this to a modal shift potential is not a straightforward exercise due to a number of limitations to this dataset:

- The identification of a barrier to the combination of transport modes and operators in Question 11 reflects a self-reported concern. It does not imply that these users do not already use sustainable transport modes for such trips, nor does it mean that removing these barriers alone would be sufficient to ensure that all of them shift to more sustainable modes of transport.

- A share of users hindered to book multimodal / multi-operator journeys, does not mean the same share of transport activity would potentially shift to more sustainable modes if the barriers were lifted. It might well be the case that these barriers apply to trips performed less frequently by transport users.

- Question 11 is presented only to respondents indicating they rarely or never book multimodal nor multi-operator journeys. This does not mean that other respondents would not be more prone to shift to more sustainable transport modes, even for some trips only, in the event that these barriers are lifted. In fact, this analysis excludes this large group entirely from the modal shift potential, whilst it is fair to assume that some of them could also contribute to modal shift.

Acknowledging these limitations, only the transport users citing an inability to buy all the tickets in one place (1.7%) were taken as having the potential to shift to other modes, as one might assume they indeed wanted to buy the tickets. Thus, **a 1.7% modal shift assumption was adopted as a ceiling**, which should be interpreted as a 1.7% increase in journeys performed via more sustainable modes and a corresponding decrease in less sustainable modes. These results are more conservative than (i) the responses received on Question 14 in the Eurobarometer survey, indicating that the total percentage of travellers whose barriers could be removed is 8.8%, and (ii) the indicative magnitude resulting from the expert workshop (around 5%), outlined in the previous section.

Modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms in the policy options

The maximum potential modal shift was than combined with the MPA to show the modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms in each policy option. This was further used as input in the ASTRA model together with the changes in the travel time discussed below. The maximum potential modal shift and the effectiveness of each option in achieving modal shift were further discussed in a stakeholder consultation workshop organised in the context of the impact assessment support study. More details are provided below.

Stakeholder consultation workshop

The modal shift potential (1.7%) and the expected effectiveness of the policy options in achieving modal shift due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms were shown for validation in a stakeholder workshop. The workshop was held on 12th

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June 2025 and attended by 108 representatives of transport operators across all modes, MDMS platforms, Member State officials, consumer organisations, and academics.

Broadly, there was agreement from stakeholders who participated in the workshop on the inputs presented, as indicated through a series of Mentimeter polls:

- Attendees were first asked about their views on the maximum modal shift potential of 1.7%. Around two-thirds of attendees responded (66 out of 108, or 61%), with similar numbers indicating the number was too high (24 out of 66, or 36%) and too low (27, or 41%), and the remainder indicating it was about right (15, or 23%). On balance, this estimate was interpreted as the rough midpoint of stakeholder expectations.

- Attendees were then asked to indicate whether the assessed effectiveness of the policy options in achieving the modal shift potential is in line with their expectations. A scale was provided for each policy option from 1 to 3, where 1 indicates the expected modal shift was too low and 3 too high. Around half of attendees replied to the questions (49 out of 108, or 45%). Average scores were 2.1 for PO1 and 1.9 for PO2[296], indicating that on average attendees agreed with the assessment. Average scores for PO3 and PO4 were both 2.4, indicating that on average respondents thought the assessed modal shift was somewhat too high. At the same time the response rate was weaker than for question 1 indicating more uncertainty among attendees on this question.

The takeaways from this workshop were that the maximum modal shift potential is in line with expectations, while there is more uncertainty on the level of expected modal shift for policy options also noting a weaker response rate. Sensitivity analysing has been further performed, as explained in section 7.6, to address the uncertainty.

1.3.2.3. Maximum potential change in journey time due to the ability to see all rail offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms

The 100 representative transport routes, by route cluster, were analysed in detail in the context of the impact assessment support study to understand what journey times are shown via two distinct booking mechanisms. The comparison between these two booking mechanisms informed the maximum potential reduction in journey times:

- ***Booking via MDMS (proxy – Omio)****:* to understand what is currently possible via MDMS platforms, Omio was selected as an advanced EU-wide MDMS platform that allows users to book tickets directly on the platform. Omio only provides options for within-mode travel (e.g. rail-rail connections or bus-bus connection, multimodal connections not being included). Other EU-wide platforms like Rome2Rio only provide re-linking functionality and do not allow tickets to be booked directly on the platform. Each MDMS platform therefore has some limitations compared to an 'optimal' ticketing solution, but Omio was selected to facilitate a comparison on the prices offered by operators on direct ticket sales channels and on MDMS platforms. In particular, it should be noted that Omio is less comprehensive in its air offers relative to other flight-specific meta-search engines (MSEs) like Skyscanner, or Online Travel Agents (OTAs) such as Etraveli.
- ***Booking directly via operators (proxy – Google Maps and other direct research)****:* to understand what is theoretically possible if an MDMS platform would have access to tickets available from all transport operators, Google Maps was used to list all possible within-mode and multimodal connections via land and sea and their associated journey times. Costs for these connections were collected by direct research on the websites of relevant operators. Advance tickets were researched to limit pricing volatility, since

[296] Mentimeter calculates the average score of all responses as a simple arithmetic mean of each individual response (1,2,or 3).

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operators often employ different practices to increase ticket prices closer to the travel date[297]. This was supplemented by additional information from Google Flights on possible direct air connections and their associated journey times/costs.

The analysis assumed ***travel from city centre to city centre***. Rail and bus connections are assumed therefore to start and end with an appropriate station within the city convenient for passenger travel. By contrast, flight connections require travel to/from the airport since these are often located outside the city centre. The analysis also considers ***time in transit only, and only for major connections***. This includes time spent in the vehicle on the main intercity legs (above 10 minutes) and time spent waiting between connections at the transit terminal. It does however not include short intra-city connections (below 10 minutes) for walking, trams, metros or similar. The results of the analysis are shown in the table below.

Table 45: Maximum potential change in journey time resulting from the 100 OD pair analysis

Cluster		Maximum change in journey time
A	National, Leader, Both attractive	-8.3%
B	National, Planned adopter and followers, Both attractive	-2.1%
C	International, At least one leader, Both attractive	-8.5%
D	International, Planned adopters and followers, Both attractive	-5.5%
E	National, Leader, Hybrid[298]	-7.8%
F	National, Planned adopter and follower, Hybrid	-5.4%
G	International, At least one leader, Hybrid	-5.9%
H	International, Planned adopters/followers, Hybrid	-5.9%
I	National, Any, Both moderately attractive	-5.1%
J	International, Any, Both moderately attractive	-9.2%

Source: Ricardo et al. (2026), Impact assessment support study

1.3.2.4. Scoring logic in the MPA module

As explained above, the effect of the policy measures included in each policy option are scored on a set of identified qualitative parameters (QPs), which are weighted in terms of their contribution, to estimate the progress towards the maximum potential modal shift and maximum potential journey time reduction. This section describes how these qualitative scores were allocated to each of the factors (i.e. the completeness and accuracy of service information (QP1), and the ability to book service offerings (QP2)).

The approach relies on expert judgement, building on insights gained from stakeholders' consultation. A score is defined for each qualitative parameter (QP) and each policy measure (PM) on a scale from -5 to +5. Positive scores represent improvements in the qualitative parameters relative to the baseline and negative scores deteriorations in the qualitative parameters relative to the baseline.

One category among each clustering criterion is identified as having the highest impact (e.g. "National" within criterion 'journey type'). The cluster with all three of the highest impact criteria would be assigned the maximum score within the range (e.g. cluster A: National, Both attractive, Leader), and the minimum score would be assigned to the cluster with all of the lowest impact criteria (e.g. cluster J: International, Both moderately attractive, Both Planned adopters/followers). The resulting output is a score for each policy

[297] Research was undertaken in May/June 2025 for travel tickets dated Wednesday 17th September (3-4 months in advance), with journeys starting at 06:00am. Some operators do not allow tickets to be purchased this far in advance. Therefore, if September tickets could not be seen, as a lower priority, tickets dated Wednesday 16th July were checked.
[298] Hybrid represents the situation where one node is attractive and one is moderately attractive.

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measure for each qualitative parameter and cluster combination. These are further used to derive the scoring for each option.

These scores are summarised in the table below, together with the logic for the chosen scores. PM1 to PM8 are assessed independently. On the other hand, PM9 to PM15 are grouped by policy option, because of the links between the policy measures including the definition of the specific obligations and the policy measures defining the stakeholder groups that are being obligated:

- Grouping 1 corresponds to the measures PM9, PM10, PM11, PM12 included in PO1;
- Grouping 2 corresponds to measures PM9, PM10, PM11, PM12 and PM13 included in PO2;
- Grouping 3 corresponds to measures PM9, PM10, PM11, PM12, PM13 and PM14 included in PO3;
- Grouping 4 corresponds to measures PM9, PM10, PM11, PM12, PM13 and PM15 included in PO3.

Table 46: Scoring by policy measure and qualitative parameter

No	Policy measure	Logic for impact on qualitative parameters (QPs)
PM1	Obligation for all MDMS platforms to apply neutral display obligations and for transport operators (in all modes) to ensure that the data they submit are accurate	**QP1: Completeness and accuracy of info** Direction of impact expected to be neutral or positive: Neutral display obligations would ensure that any operators listed on MDMS would be shown to consumers in a neutral and unbiased way. This is seen as particularly important for indispensable RU platforms and tend to favour high-volume operators, who have greater incentives to display their own services, but it will also have impacts on the third-party platforms who are not currently obligated to display options neutrally. The experience from introducing the CRS Code of Conduct was highly positive: travel agents and consumers gained access to a more comprehensive and unbiased view of available flights across multiple airlines, not just those of the airline affiliated with the CRS. This increased transparency and neutrality made it easier to compare options effectively based on established ranking criteria. If one operator were preferentially displayed over another on B2B platforms, it may prevent the travel agent to choose the travel option which is the best according to the criteria requested by the consumer as it can believe another operator may not provide services on the route. Likewise, on B2C platforms the consumer may not be able to see an operator's service best suited to their direct request. Impact scores could range from +1 to +2: **Journey type:** evidence of self-preferencing originates mostly from countries with large dominant RUs - transport operators have cited the example of DB in Germany acting as the dominant MDMS platform and limiting Flixtrain ticket display - suggesting that National routes may experience greater impacts from neutral display obligations. International routes are served both by third-party, country-agnostic platforms and nationally focused platforms such as SNCF Connect and DB Navigator. There is still the potential, in the absence of regulation, for third-party platforms to perform paid prominence but this biased ranking needs to be clearly indicated to end-users. **Attractiveness:** Impacts are expected to be largest where there are more alternative operators that are not being displayed fairly, which is more likely on high traffic routes (Both attractive). Most of the OD routes within the relevant clusters are accessible by more than one mode (typically bus and rail), meaning that impacts would be non-zero even on routes that are Less attractive. **MDMS advancement:** Impacts are expected to be largest where there is greatest scope for preferential treatment on MDMS platforms, in particular for indispensable RU platforms (one industry association and 3 transport operators, noted that transport operator-owned MDMS platforms often serve as a national mobility platform which disadvantages new market entrants). It is therefore expected to observe a greater impact on Leader Member State, where more MDMS platforms are developed and the platforms' user base is higher than the EU average. Impacts would be smaller where Member States have no rail indispensable platform or fewer or no MDMS platforms (Planned Adopter/Follower). **Overall assessment:** The maximum positive impact is capped at +2 because this only improves the ability of a consumer to fairly compare transport options, rather than encouraging more options to be displayed on platforms. The minimum impact is assessed at +1 because long, complex routes which are only possible to be performed by air would still be covered

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		by B2B MDMS, including those who are not CRS's, and would fall under neutral display obligations when the Regulation is in place. **QP2: Ability to book** Direction of impact expected to be positive: In the baseline there is evidence of preferential treatment by MDMS and indispensable railway undertaking platforms when choosing what information will be shared or promoted at different ticket distribution platforms (see Problem Definition section). A limited level of progress in preferential treatment is expected going forward (see Baseline section). This PM could make it easier to see offerings of operators that are not affiliated with the MDMS platform and therefore do not experience preferential treatment, making it easier for passengers to book those offerings. Impact scores could range from 0 and +1: differentiation by cluster is considered consistent with QP1.
PM2	Obligation for all MDMS platforms to load and process data of operators with equal care and timeliness	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be neutral or slightly positive: While this measure promotes fairness in backend data handling (e.g., timelines and care in processing data from all operators), the improvement is not necessarily visible to users. Passengers are unlikely to perceive a major difference in the accuracy or completeness of travel options. However, there is a potential for this to improve real-time information availability for consumers where delays in process data could cause the availability of services from one operator not to be shown, or to be shown later compared to another operator. Impact scores could range from 0 to +1: differentiation by cluster consistent with PM1, omitted for brevity. **QP2: Ability to Book** Direction of impact expected to be neutral or slightly positive: While this policy measure will avoid preferential treatment to legacy and/or incumbent transport operators by MDMS platforms in terms of equal care and timelines, it is not considered to have a significant impact on the ability for users to book transport tickets. It is possible that it could have a partial positive impact on alternative options being made visible earlier and more consistently, however, actual booking functionality may be constrained if the MDMS does not have booking agreements in place with all operators. Impact scores could range from 0 to +1: differentiation by cluster consistent with PM1, omitted for brevity.
PM3	Obligation for all MDMS platforms to share marketing and booking data in a fair way, when requested by transport operators	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be neutral: This policy concerns how booking and marketing data is used or shared, rather than how passenger data is presented or displayed. It is therefore not considered to have a direct impact on the completeness or accuracy of the travel options shown to passengers. Impact scores would be 0: for the reasons above.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		QP2: Ability to Book Direction of impact expected to be indirectly positive: Marketing and booking data can be used to identify customers purchasing decisions and preferences, and gives operators access to important facts like location, destination and booking history to enable more effective marketing practices. This means that it could be used by businesses to provide personalised services, improve services based on demand or develop a more user-centric booking option overtime, (i.e., MDMS platforms could test out different booking options and use this data to streamline more popular selections). Due to the potential of this data to improve the booking process, it is possible that there may be an indirect positive impact on the ability of consumers to book. The impact score for this measure could range between 0 and +1: **Journey type:** International journey types may benefit more from aggregated data, especially on more complex multimodal or cross-border journeys, however, the impact is expected to be small for both national and international journeys. **Attractiveness:** High traffic corridors will have the richest set of marketing and booking data, increasing the potential for improvements in how these services are integrated into booking interface, the scope for this is much smaller when both locations are less attractive as there is less data to act on. **MDMS advancement:** Impact is mostly expected in locations where more advanced platforms are available or where MDMS usage is higher (leader) as there is more potential for marketing data analytics to be insightful. **Overall assessment:** This PM's primary benefit is not expected until, and only if, marketing and booking data is used to optimise services and booking services. This will have the highest impact along routes where there is high usage of MDMS platforms and where data is collected to allow for this optimisation to take place.
PM4	Obligation for all B2B MDMS platforms to treat subscribers fairly and clearly identify in their display banned airlines. Obligation for third countries B2B MDMS to ensure equal treatment of EU air carriers	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be neutral or slightly positive: This PM is focused on business-to-business contact, specifically in relation to the usage of subscriber data and EU airline offerings on third-country MDMS platforms. It could affect consumers if unfair treatment of EU carriers on these third-country platforms leads to different options being available for individuals who see results generated using these B2B services in the information chain. Third country GDSs are already covered by this, but the net effect is likely to be non-discrimination of EU carriers by other third country B2B MDMS (non-CRS aggregators). Impact scores could range from 0 to +1: Greater impacts are expected on clusters involving more flights, since this intervention targets the potential imbalance in competition between regulated CRS and unregulated B2B MDMS that offer mostly aviation options. **Journey type:** International journey types may benefit more from rules on fair treatment of subscribers, as flights are more common on these routes than for national journeys.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		Attractiveness: High traffic corridors are more likely to have regular flights, meaning that high attractiveness routes are likely to experience greater impacts. **MDMS advancement:** Impacts are likely to be similar for markets where MDMS is more or less developed. **QP2: Ability to Book** Direction of impact expected to be neutral: As consumers do not book directly via B2B platforms, the impact on the degree to which consumers can book multimodal transport on MDMS platforms is thought to be neutral. Impact scores would be 0: for the reasons above.
PM5	Remove provisions on data protection from CRS Code of Conduct	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be neutral: This PM addresses the legislative burden associated with navigating existing CRS provisions on data protection and GDPR. It does not affect what data is shown or how it is displayed. No direct impact on passengers is expected. Impact scores would be 0: for the reasons above. **QP2: Ability to Book** Direction of impact expected to be neutral: As above, this PM aims to improve legal clarity for CRS platforms, however, it does not affect passengers' experience. Impact therefore expected to be neutral. Impact scores would be 0: for the reasons above.
PM6	Obligation for Member States to appoint a national authority to settle disputes between parties, and establish an EU enforcement network for coordination	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be positive. Clear enforcement and dispute-resolution processes would discourage MDMS platforms from omitting or misrepresenting smaller operators' services. National authorities will monitor platform compliance and address complaints when services are omitted and by doing so, platforms are deterred from showing bias toward larger operators. National authorities are also expected to settle disputes between parties as regards unfair conditions in distribution contracts, whether stemming from platforms imposing disproportionate terms on operators or, conversely, from operators imposing high fees or restrictive conditions that lead platforms not to sell their services. Over time, this enforcement would lead to more complete and reliable information presented to passengers. It is expected to offer a marginal improvement to completeness and accuracy of information as the improvements only occur when individual operators file complaints and authorities do find bias or omissions or unfair contractual conditions affecting distribution. Each resolved case corrects information for that operator, but platforms are not obligated to revise

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		all listings. As a result, accuracy and completeness improve in specific instances rather than system-wide, yielding a modest overall gain. Impact scores for this measure could range between +1 and +1. Journey type: The impact is expected to be marginally stronger for national journeys where national authorities have direct oversight. International journeys may benefit slightly less as cross-border oversight relies on coordination between authorities which may slow enforcement, but due to the introduction of the EU coordination enforcement network, the score allocated to national and international trips is the same. EU Travel Tech, an industry association representing MDMS provider, indicated that current enforcement of the Code of Conduct has not always been applied, greater enforcement of the CoC by national authorities between aviation distribution channels could positively impact international journeys due to the cross-border nature of many flights. Attractiveness: More attractive routes, where passenger volumes and operator competition are higher, are more likely to generate disputes due to the greater profitability and number of stakeholders involved. Operators are more likely to challenge any exclusion or disadvantage on these routes, leading to more frequent interventions from national authorities. Less attractive routes may see fewer complaints, resulting in more limited impact. MDMS advancement: Impacts may be largest where there is greatest scope for preferential treatment on platforms, or unfair contractual conditions between parties. With more platforms competing in Leaders, there would naturally be more disputes, resulting in greater impact of the PM. Impacts would be smaller where Member States have fewer or no MDMS platforms, as the level of competition would remain lower (Planned Adopter/Follower). Stakeholder input, particularly from MDMS platforms, indicated that current competition law and enforcement is fragmented and insufficient, indicating that increased enforcement, particularly in areas with dominant transport operators, would have a more significant impact. Overall assessment: The maximum positive impact of this PM is capped at +1 because improvements depend on individual operators/platforms filing complaints and receiving favourable outcomes. This leads to targeted corrections rather than system-wide changes. The minimum impact is +1 because dispute resolution will still provide positive impact and even the presence of national authorities carrying out this role may deter unfair platform/operators' practices and prompt some proactive adjustments by platforms. **QP2: Ability to Book** Direction of impact expected to be neutral or slightly positive. The enforcement focus under this policy measure is expected to be focusing on ensuring fair visibility and representation of transport operators on MDMS platforms, such as preventing exclusion or biased listing practices as well as on ensuring fair terms in contractual agreements. However, the expected impact remains limited because this measure is primarily enabling and corrective by nature: it improves compliance and deters unfair behaviour, but it does not in itself impose a direct obligation on platforms to host or sell services, nor on operators to sell their tickets. The largest improvements in booking availability are therefore expected to stem from other

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		measures, while enforcement oversight mainly strengthens their effectiveness and ensures they deliver results on the ground. Impact scores for this measure could range between 0 and +1: differentiation by cluster consistent with QP1 above, omitted for brevity. Total impact is capped at +2 as the other policy measures are only as useful as the enforcement by national authorities, but it should not exceed the maximum impact of the policy measures themselves.
PM7	Obligation for all B2C MDMS platforms to share data for mobility management	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be neutral or slightly positive. This measure does not directly affect the information that consumers see on MDMS platforms, but it indirectly supports better planning and coordination, particularly for regional public authorities. To the extent that regional authorities are given access to the information by national public authorities, this could lead to improved understanding of services available in their region, and following their integration, lead to improvements in completeness and accuracy of information on MDMS operated or co-operated by regional authorities. By requiring B2C MDMS providers to share non-personal usage data with public authorities, the policy gives cities and regions a clearer picture of how people use transport services, such as which routes are most used, where transfers happen and what parts of the network may be underused or missing. Equipped with better knowledge, public authorities can then work to provide a more complete physical service provision, which then would become more accurately reflected on MDMS platforms. For example, if an area with poor integration or missing data is identified, action could be taken to improve availability of those services, eventually enhancing the completeness of journey options shown to relevant users. Impact scores for this measure could range between 0 and +1. Journey type: This may benefit both national and international journeys. By giving public authorities access to better data, the integration of different transport modes can improve particularly for regional transport, leading to a more accurate view of available services. Attractiveness: The measure benefits both attractive and less attractive routes. For attractive routes, public authorities may be able to optimise services, while for less attractive routes, it may highlight gaps or underserves areas, prompting action to improve visibility and coverage. MDMS advancement: This is likely to have a greater impact in follower regions or regions where data sharing is still developing. These regions may benefit most as they gain better data and can use it to integrate services and improve their transport offering. Overall assessment: The impact of this PM on the completeness and accuracy of information is expected to be neutral or slightly positive. By requiring B2C MDMS providers to share non-personal data with public authorities, it will help

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		improve authorities' ability to understand transport system usage and identify service gaps. This improved insight can support better planning and the development of more accurate travel information over time. However, since most operators are private, authorities have limited control over actual service provision, i.e., they can't directly create or force operators to create new services. Even if private investment increases, there's no guarantee those new services would be displayed on MDMS platforms unless those platforms have SMP, which would make them subject to stricter rules about listing. Therefore, the impact on completeness and accuracy of information on platforms may be limited in scope. **QP2: Ability to Book** Direction of impact expected to be neutral. The obligation for B2C MDMS platforms to share data with public authorities does not directly impact consumers' ability to book services. While the availability of more data may help authorities improve service offerings and identify where gaps exist, it does not change the commercial agreements or the integration of booking systems on MDMS platforms. Therefore, there is no direct impact on booking availability or ease of booking through MDMS platforms. Impact scores for this measure would be 0.
PM8	Obligation for all B2B and B2C MDMS platforms to display information on GHG or CO2 emissions of trips (when these data are provided by the operators in line with and Count Emissions EU and Flight Emission Label)	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be positive: the display of GHG emissions, where provided by operators, improves the completeness of travel information by adding environmental data on displayed travel options. The accuracy of the data provided depends on the consistency and quality of operator-provided data, however, when standardized (such as through Count Emissions EU and Flight Emission Label) it is expected to be a reliable way for consumers to compare between travel options. Some MDMS platforms (e.g. Trainline) already display GHG emissions from participating operators, but this is not seen as an industry standard and many MDMS do not have this facility. The impact score for this measure could range between 0 and +1: Journey type: Emissions data are no more likely to be provided by an operator within one Member State than an international operator. Attractiveness: There may be higher operator participation and better data availability along competitive corridors due to operators wishing to differentiate from competitors on indicators other than cost and time. When a route is less attractive/has less traffic consumers are more limited by their travel options, and therefore an operator would have less incentive to provide this data. Additionally, in European regions where air travel remains the sole viable option (low demand) displaying emissions data offers limited practical relevance (as indicated by MDMS provider via interview) as GHG emissions would remain similar, although the use of SAF might reduce emissions of some flights compared to other similar offers.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		MDMS Advancement: MDMS platforms that are more developed, or more highly used (Leaders), may have more participating operators (one MDMS association, ADN Mobilites indicated support for inclusion of GHG emissions via interview). This could result in more GHG emissions data for consumers to compare between. In places where there is less usage or platforms (Followers), the inclusion of environmental data may have a reduced impact as there is less comparison. Overall Assessment: This PM can positively impact the provision of accurate and complete data to customers, specifically along more trafficked routes or places with higher MDMS usage as this will enable consumers to compare between transport operators more readily. The score is capped at +1 as some MDMS platforms already display GHG emissions, therefore limiting the additional positive impact this measure may have compared to the baseline. **QP2: Ability to Book** Direction of impact expected to be neutral: The display of information on GHG emissions of trips does not impact the ability of consumers to book transport tickets. Impact scores would be 0: for the reasons above.
Grouping 1	This grouping corresponds to PM9 to PM15 that are applicable in PO1: PM9, PM10, PM11, PM12. PM9: Thresholds to identify B2C MDMS platforms and railway undertakings with SMP PM10: B2C MDMS platforms and railway undertakings with SMP at national or EU level notify national authorities or EC of their market presence. PM11 and PM12: B2C MDMS platforms with SMP, indispensable RU platforms indispensable RUs and B2B MDMS: must respect principles on distribution	No impact is expected from PM9 or PM10. PM9 constitutes actions for policymakers to set SMP thresholds, while PM10 constitutes actions for platforms and RUs to notify to MS authorities when they reach those thresholds at national level, and in turn for MS authorities to notify EC authorities. When the thresholds are reached at EU level, MDMS platforms directly notify EC authorities. There are interactive effects with PM11 and PM12 which introduce obligations on those platforms and indispensable railway undertakings, but the full impacts on QPs is attributed to the obligations, accounted for below to avoid duplication. **QP1: Completeness and Accuracy of Information** Direction of impact from PM11 and PM12 expected to be positive: this group of policy measures aims to prohibit restrictive contractual clauses by indispensable railway undertakings and indispensable MDMS platforms and introduces fairer distribution fee principles. These principles could facilitate agreements between MDMS platforms and operators, directly targeting gatekeeping behaviour, curbing anti-competitive practices, and enhancing transparency and fairness. This group of measures can also be expected to fix existing biases and limitations in the presentation of service offerings of new entrant RUs on MDMS platforms and indispensable RU platforms. Thich could increase the number of operators on those platforms, improving completeness (referred during the interviews by three MDMS providers including ADN Mobilités and EU Travel Tech, one national authority, and the consumer organisation EPF). Thes measures will target platforms and RUs with a strategic position in the market, ensuring that the obligations are applied proportionally, avoiding overburdening smaller or emerging MDMS platforms or railway undertakings. The impact score for this group of measures could range between 0 and +2: Journey type: The highest impact is expected in the context of international journeys, particularly cross-border rail services. These trips are often fragmented in terms of data availability, pricing, and booking options due to the lack of equal

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
	fees and cannot impose highly restrictive clauses (exclusivity clauses, unfair and unjustified conditions, marketing clauses and other technical restrictions) when entering into commercial agreements with transport operators	treatment of RUs operating national legs, vertically integrated MDMS with proprietary sales channels favouring their own services, and protectionist strategies by incumbents (this was referred during interviews by two rail incumbents including DB, but also UITP representing the view of public transport operators). By targeting indispensable RUs and MDMS with SMP, the measures would compel greater commercial openness, reducing information asymmetries and improving the visibility of available cross-border options (interviews with four stakeholders: a rail ticketing platform, an international bus and rail operator, a new-entrant railway undertakings, and a private mobility platform). Some impact is still expected in domestic or regional trips: MDMS platforms sometimes reflect the full inventory (interview with EMTA), but there is evidence of cases where RUs within an EU Member State are not integrated into MDMS platforms. Attractiveness: The measure is likely to yield the greatest improvements in high-demand, highly populated corridors, where RUs with SMP may control also distribution channels. On such routes, smaller RUs and alternative services often remain less visible to consumers due to lack of access to dominant MDMS platforms. Requiring non-discriminatory agreements would enhance transparency, increasing consumers' visible choices and potentially stimulating modal shift (interviews with WestBahn and T&E). On low-demand routes, however, where there might be a lack of alternative transport options, even full information availability is unlikely to trigger substantial behavioural change, as barriers such as frequency, speed, and service coverage dominate user preferences (interview with CER and BEUC). MDMS advancement: The greatest effects will likely be seen in regions where the MDMS market is already advanced, but where competitive distortions persist due to discrimination in the context of vertical integration or SMP (the problem of discrimination in the context of vertical integration was referred in interviews by four independent MDMS providers such as DoHop, by consumer organisations, such as EPF, and by other organisations like ECTAA). In this context, the measures introduce a governance mechanism to enable access to commercially significant distribution platforms, on a fair basis. The result is likely to be increased transparency and better coordination between platforms and RUs. In less developed MDMS regions, while the legal framework could provide a signal for future interoperability, the short-term impact can be expected to be more limited. The absence of mature MDMS players reduces the immediacy of the problem these measures are designed to address. The role of regional RUs particularly in Germany and France, requires separate consideration. In these contexts, regional authorities—not operators—control fare and ticketing policies (mentioned during interviews by a MDMS provider, and the incumbent rail operator SNCF and one other organisation). Overall assessment: These measures will likely result in a positive effect on the completeness and accuracy of information across digital mobility platforms, especially in high-demand, competitive corridors and fragmented international routes. The impact is capped at +2 as the requirement to respect the 'specific rules' will not necessarily lead to more agreements being made between platforms and operators, it will only encourage cooperation ensuring this would be on a fair basis. The impact could be neutral on national routes with little alternative journey options. **QP2: Ability to Book** Direction of impact for PM11 and PM12 expected to be neutral or slightly positive: the respect of specific rules applicable to those with SMP again functions as a precondition or enabler. By pinpointing where booking restrictions are likely

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		imposed by dominant players, it justifies and refines the application of rules for commercial agreement. On its own, these principles would do little to alter booking capabilities, particularly in the case of MDMS platforms controlled by PTAs, where both operators and distribution channels are already under PTA control and the measure does not enhance this existing coordination. However, there is an argument that these rules may indirectly generate an incentive for platforms to improve ability to book: for example, by providing greater confidence on the commercial terms that MDMS platforms could negotiate with operators, this may increase the incentive to invest in new booking functionalities. The impact score for this group of measures could range between 0 and +1: Journey Type: functionalities on platforms may be slightly more likely to improve on international routes since cross-border rail services are automatically in-scope regardless of the market power of an individual operators, meaning that there may be broader confidence on the terms negotiated on such routes and encouraging development of cross-border booking capabilities. By contrast, national routes will only sometimes have SMP, so these incentives to invest in booking functionality will be scattered depending on the coverage of the operators or platforms with SMP. Attractiveness: Impact will likely be greater in attractive, high-demand corridors. Dominant players in the transport sector are typically more inclined to operate on high-demand or heavily trafficked routes, where passenger volumes ensure greater commercial viability. These corridors offer higher revenue potential and better economies of scale, allowing large operators to maximise returns on infrastructure, rolling stock, and service investments. As a result, they tend to concentrate their services in these areas, reinforcing their market position and brand visibility. To the extent that they can exert this power to negotiate unfair commercial terms, it will be more likely on these routes. MDMS Advancement: In follower regions, where MDMS ecosystems are still developing, this group of measures may help accelerate integration and prevent the entrenchment of gatekeeping behaviour. There will therefore be a larger, long-term effect on follower regions, while in advanced MDMS a shorter term (smaller) impact is expected. Overall Assessment: The positive impact is capped at +1 because booking capabilities are unlikely to be directly impacted by this group of policy measures. In areas where MDMS has more value, an increase in the integration potential may indirectly lead to an increase in MDMSs and their services (innovation), but this would be only an indirect effect. The impact could even be neutral on national routes where SMP does not exist.
Grouping 2	This grouping corresponds to PM9 to PM15 that are applicable in PO2: PM9, PM10, PM11, PM12, and PM13.	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be positive: This grouping introduces obligations aimed at increasing the availability of incumbent RUs offerings on online ticketing platform. The addition of PM13 establishes an obligation for indispensable RUs to enter into agreement with willing online ticketing platform, ensuring that their services are made available on any willing platform. This addresses gaps where incumbent offerings were previously limited to direct channels or linked platforms that may prioritise their own services. The impact score for this measure could range between +2 and +4.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
	Measures are the same as in Grouping 1, with the addition of: PM13: Indispensable RU (with SMP and to all other rail undertakings in relation to PSO and cross- border services): must enter into commercial agreements with willing MDMS platforms to enable the re-linking, resale and/or distribution of their tickets	Journey type: The measures are expected to have the greatest impact on international routes. Similar to what was outlined in Grouping 1, these journeys are typically fragmented in terms of data availability, pricing and booking options due to the lack of coordination between national RUs, the presence of MDMS with proprietary sales channels, and protectionist practices by incumbents. On these routes, the obligation to sell ensures that consumers can more easily see and compare alternative offerings. Domestic routes may see a smaller effect where incumbents already dominate distribution. Attractiveness: High traffic and attractive routes are likely to benefit the most. On these routes, the obligation to sell means that incumbent RUs' must provide their services to willing MDMS platforms, which in turn can display a broader set of options to consumers. This increases the visibility of alternative rail offerings and ensures that independent platforms are not disadvantaged by restricted access. On low-demand routes, the impact is expected to be smaller as fewer RUs provide services on these routes. Even when incumbent RUs comply with the obligation to sell, the total number of rail options available to consumers is naturally limited. In other words, consumer choice is constrained by the small number of operators rather than by access to distribution platforms, so improvements in completeness are less pronounced. MDMS advancement: The measures are likely to have more impact in the short term in regions where advanced independent MDMS platforms exist (leaders). These platforms can already display incumbent offerings and benefit from the obligation to sell, improving their service completeness. In less developed MDMS regions (followers), the obligation supports longer-term platform development by creating a clearer business case for new entrants and preventing incumbents from restricting access. This encourages the growth of more competitive and interoperable MDMS platforms across the EU in the longer term. Overall assessment: These measures are expected to have a clear positive effect on the completeness and accuracy of information available to consumers. By introducing the obligation to sell for indispensable RUs, the measures ensure that incumbent services are made available on MDMS platforms, including independent ones, which enhances comparability and visibility of alternative options. The minimum impact score of +2 reflects the inherent improvement achieved simply by adding incumbent rail offerings to platforms that previously had limited access. The maximum score of +4 reflects the potential impact in high-demand and international routes, where multiple RUs compete and the obligation to sell significantly increases the number of options displayed on MDMS platforms, improving consumer choice. The limitations remain since there is no inclusion of an obligation to sell for smaller RUs and new entrants, meaning independent MDMS platforms would still not necessarily display all possible rail offerings. Additionally, there is no obligation for MDMS platforms to host all willing RUs immediately, meaning the full impact may be delayed as platforms are not required to accommodate offerings straight away, even if doing so would be in their commercial interest. **QP2: Ability to Book** Direction of impact expected to be positive: These measures are expected to improve the ability to book rail services on MDMS platforms. By introducing the obligation to sell for indispensable RUs, the measures allow MDMS platforms to have access to main rail offers and combine them with other transport offers therefore providing new, innovative transport

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		journeys to consumers. Platforms are incentivized to integrate offers, enhancing the user experience and making it easier for consumers to purchase tickets without needing to visit the incumbent operator's website. Stakeholder input indicates that current practices can restrict such booking functionality. As one MDMS provider, FTO, noted: *"Strong transport operators remove full content from neutral and cost effective B2B MDMS (CRS) and thus making it burdensome and expensive for B2C MDMS (travel intermediaries) to provide full and undistorted access to tickets for consumers."* Another MDMS stakeholder (providing multimodal travel information) highlighted how certain commercial practices affect booking and the user experience: *"…some operators restrict the information that can be shown on MDMS platforms or impose prohibitively low commission rates, forcing MDMS partners to operate at a loss on ticket sales and redirecting users to operator websites for modifications, which disrupts the user experience".* The impact score for this measure could range between +2 and +4. **Journey type:** The positive effect is expected across both national and international routes, as the obligation to sell applies to incumbent operators regardless of route type. **Attractiveness:** The measures are likely to have the greatest impact on high-traffic or popular routes, where indispensable RUs are most commonly active. On these routes, enabling booking on independent MDMS platforms provides tangible benefits to consumers by improving convenience and increasing competition between platforms. On lower-demand routes, the impact may be more limited because fewer operators are present and some platforms may not yet prioritise integration of these services. **MDMS advancement:** In regions with advanced independent platforms (leaders), the measures can have more immediate effects, as these platforms are more likely to already have the capability to relink or enable full booking for incumbent services. In less mature markets (followers), the measures are more likely to have stronger impact in the longer term, by creating a clear business case for new platforms, promoting interoperability and preventing gatekeeping behaviour by incumbents. Over time, this can encourage the development of new MDMS platforms. **Overall assessment:** The measures are expected to have a clear positive effect on the ability to book rail services across MDMS platforms. The minimum impact score of +2 reflects the improvement in routes where incumbents operate, and users may benefit from booking tickets on alternative booking channels to the incumbent website, which may have better user functionalities. The maximum score of +4 accounts for the potential benefits on high-demand routes and internationally. Limitations nonetheless remain, i.e., there is no obligation to sell for smaller RUs, and no obligation for MDMS platforms to host all willing Rus immediately. As a result, the ability to book may not improve for all rail offerings, across all platforms straight away, and full benefits may be realised more gradually.
Grouping 3	This grouping corresponds to PM9 to PM15 that are	**QP1: Completeness and Accuracy of Info**

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
	applicable in PO3: PM9, PM10, PM11, PM12, PM13, and PM14. Measures are the same as in Grouping 2, with the addition of: PM14: Indispensable RU platforms: must enter into commercial agreements with willing RUs (operating within the same geographical area in which the RU owning the indispensable RU platform has SMP) to enable the distribution of tickets	Direction of impact expected to be positive: This PM grouping introduces an obligation for indispensable RU platforms to enter into commercial agreements with any willing RU299, and an obligation on indispensable RUs to enter into commercial agreements with any willing ticketing platform. These requirements aim to close gaps in MDMS platforms and address exclusionary practices. These agreements mean that route, schedule, and pricing information for indispensable services would be more fully displayed in MDMS platforms, and indispensable RU platforms would contain information on other RUs, not just the RU they are linked to. As these services are added, the range and accuracy of information available to users would improve. Stakeholder input on the expected effectiveness of PM14 (obligation to host for indispensable RU platforms) specifically was mixed. Across all 69 respondents, 19 considered it very or somewhat effective, 14 considered it very or somewhat ineffective, and 36 were neutral or did not know. EPF and WestBahn noted that such an inclusive approach would prevent loopholes and ensure a level playing field across the sector. The impact score for this measure could range between +3 and +4. **Journey type:** The impact is expected to be especially strong for international and long-distance national journeys where indispensable RUs are not encouraging their services on all MDMS platforms, and where indispensable RU platforms are not displaying alternative RUs. Access to these services is often fragmented or missing from MDMS/indispensable RUs platforms due to gatekeeping or technical barriers. The inability of dominant players to provide seamless international and intermodal ticketing without "opening the game" to competition is mentioned in interviews by two new entrant RUs including WestBahn. **Attractiveness:** In more attractive routes, where competition and demand are high, the visibility of indispensable RU services in all relevant MDMS platforms will address the imbalances in information that currently favour RUs with SMP and their affiliated services. Additionally, the obligation for indispensable RU platforms to include the offering of willing RUs will also support the presentation of a more complete service offering on platforms, as well as the obligation for indispensable RUs to share their offer to requesting platforms. In less attractive routes, the effect may be more limited but still beneficial as they may become better linked with routes with significant traffic and competition that might comprise legs of these trips. **MDMS advancement:** in the short term there is undoubtably a positive effect on advanced MDMS where visibility would increase swiftly. In the long term, this grouping would enable currently less advanced MDMS which show little integration to advance faster. Therefore, there is likely to be a positive impact on advanced MDMS and a very positive impact on less advanced MDMS. **Overall assessment:** The measure focuses on enabling provision of route, schedule and pricing information for indispensable RU on more platforms, and for indispensable RU platform to show this information for more RU. This

[299] The obligation of indispensable RU platforms to integrate the offering of RU is limited to the offers within their geographical scope of operation.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		inherently improves information completeness. At the least, this will ensure indispensable rail options are available to be seen on all willing MDMS platforms, increasing completeness of information for passengers (+3). The potential impact is capped at +4 because the obligation for MDMS only extends to indispensable RU (one MDMS mentioned there are many regional RU who do not want to be integrated in other platforms), and the obligation for railway undertaking extends only to indispensable RU platforms (which do not necessarily cover all routes). Further, this group of measures could make dominant platforms even more attractive for consumers as they can use the platform they are used to and already see more services. This could limit the role of smaller MDMS who may offer alternative information of interest to consumers. **QP2: Ability to Book** Direction of impact expected to be positive. This builds on the fair treatment principles in Grouping 1 but goes further by making ticketing agreements mandatory for indispensable RU and indispensable RU platforms. The main outcome of this obligation is that it forces RU to enable both re-linking and direct booking within the MDMS (depending on their business model and practice). This will help improve the user experience by allowing MDMS platforms to re-link or sell RUs offers (depending on their current business model). The impact score for this measure could range between +3 and +4. **Journey type:** The grouping will benefit both national and international journeys, as indispensable RU often serve high-volume routes that are central to long-distance and cross-border travel. **Attractiveness:** On high-traffic, attractive routes, indispensable RUs are more commonplace. This Grouping would mandate increased booking access to these routes, broadening competition and reduce consumers' dependency on existing services that may be vertically integrated, making the impact greater than in either Grouping 1 or Grouping 2. Indispensable RUs may also operate some low-traffic routes, meaning that the impact would be smaller than on high-traffic routes, but still greater than in Groupings 1 or 2 where commercial agreements are only encouraged through principles rather than mandated. **MDMS advancement:** As with previous Groupings, the impact is expected to be greater in MDMS follower Member States, where integration is currently more limited. This Grouping would more rapidly facilitate an expansion of the MDMS' offerings to all indispensable railway undertaking, allowing some level of competition with more established platforms. **Overall assessment:** This PM grouping accelerates and streamlines the development of agreements between RUs and MDMS platforms via the principles brought on commercial agreements. This, and the mandated integration RU services into relinking and booking MDMS platforms, provides a more stable environment for MDMS services to develop and expand. However, the impact is capped at +4 as parties have to be willing to make agreements to be made available on indispensable RU platforms – one interview with an MDMS provider suggests that some smaller regional RUs have no desire for their tickets to be available on other platforms.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
Grouping 4	This grouping corresponds to PM9 to PM15 that are applicable in PO4: PM9, PM10, PM11, PM12, PM13, and PM15. Measures are the same as in Grouping 2, with the addition of: PM15: Indispensable RU platforms: must unbundle its distribution system from the systems of its parent operator	**QP1: Completeness and Accuracy of Info** Direction of impact expected to be positive. This grouping of policy measures will improve the completeness and accuracy of information on MDMS platforms by addressing structural barriers that limit the fair representation of transport operators' services. Initially, it provides, similar to Grouping 1, a framework for agreements between (indispensable) RU and MDMS platforms with SMP. This framework of commercial principles can simplify the conclusion of agreements and consequently accelerate the integration of services. Further, it includes an unbundling requirement, potentially limiting the commercial incentive of dominant, vertically integrated RU platforms, to provide unfair preferential treatment to their own transport services. This means dominant RU must separate their platform operations from their own transport services. Insights from the interview with a rail MDMS provider suggests that the principal issue in contract negotiations lies with vertically integrated RU that impose unfair contractual conditions on independent MDMS providers. Stakeholder survey responses on the effectiveness of an obligation to unbundle were mixed. Out of 69 respondents, 22 considered unbundling very or somewhat effective, 20 considered it ineffective, and 26 were neutral or did not know, with RU platforms being particularly sceptical (4 out of 5 considered it very ineffective) while new entrant RUs and national authorities were more positive. An MDMS provider noted that "financial separation of accounts may provide a base to verify a level playing field between own distribution system vs. independent MDMS and fair remuneration". A tourism industry association highlighted that "the unbundling requirement separates the distribution systems of vertically integrated MDMS from those of their parent operators. This structural intervention is critical to ensuring that ticket offers are not biased toward the MDMS's own transport services [therefore enhancing] neutrality and transparency in distribution". Second, it includes an obligation for indispensable RU to enter commercial agreements with requesting MDMS platforms, meaning they can no longer withhold their ticketing data or refuse to cooperate with platforms. By removing both gatekeeping practices both by platforms and by RUs, this PM grouping has the potential to make travel options more complete and accurately presented. Again, among stakeholders, there are a number of views that mutual commercial interest should guide collaboration in distribution rather than mandated access (expressed by two MDMS providers including ADN Mobilités, an incumbent RU, an association of airlines, the public transport operator's association UITP, two national authorities and other organisations such as ECTAA).Still, some also voice support for this obligation (EPF and WestBahn) as a step toward fully integrated, multimodal travel experiences that prioritise consumer needs over proprietary interests. The impact score for this measure could range between +2 and +4. **Journey type:** The measure is particularly impactful for cross-border and long-distance national services, where indispensable RU often provide critical links but may currently be missing from MDMS platforms due to either their lack of cooperation with platforms or MDMS bias (due to vertical integration). By unbundling and obliging indispensable RU

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		to enter into commercial agreements, MDMS providers will be more likely to include these services fully and accurately, addressing long-standing issues with cross-border coverage and improving multimodal journeys that rely on rail. **Attractiveness:** This measure will have a positive impact on both attractive and less attractive routes. Unbundling helps prevent dominant platforms from showing only their own or preferred services, ensuring travellers can see all available options. On less popular routes, it increases the chances that smaller or independent RU will also be shown fairly, improving overall visibility. The impact is expected to be slightly higher on attractive routes where competition between RU is greater, and this will be better represented in cases where visibility of this competition is being restricted by vertically integrated players. **MDMS advancement:** The effect on completeness and accuracy of information is likely to be most significant in MDMS leader Member States, where indispensable RU platforms' user base is broader than on other Member States, and where major railway undertaking may currently avoid certain platforms. In this context, both sides of the PM grouping (obliging indispensable RU platforms to become neutral and for indispensable RU to participate) directly address ongoing issues. In MDMS follower or planned adopter Member States, where MDMS is still emerging and these kinds of conflicts may not exist, the measure will likely have limited or no impact. **Overall assessment:** The measure improves the completeness and accuracy of information by breaking up vertically integrated RU platforms from their respective operators, removing commercial incentives for a biased representation of the linked operator. Compared to PO2, the addition of the unbundling requirement strengthens neutrality in distribution by structurally separating platform and operator interests; it reduces the likelihood that affiliated services receive preferential visibility. The impact is therefore expected to be slightly stronger than under PO2, with the potential to reach the upper end of the +2 to +4 range in markets where vertical integration currently constrains completeness and accuracy. The impact is on the margin to be lower than Grouping 3 though, as it does not force indispensable RU platforms to enter commercial agreements with any willing operator (which improve information completeness), it just removes the incentive to have any connection or bias with a linked operator. In markets where vertical integration is not present, the measure will still have a positive impact due to the inclusion of indispensable rail offerings on all MDMS (+2). **QP2: Ability to book** Direction of impact expected to be slightly positive. This PM grouping may support better booking options on MDMS platforms by addressing the two issues: 1) obliging indispensable RU to enter into commercial agreements and 2) requiring indispensable RU platforms to unbundle from their affiliated RU. However, while the measure improves access, the effect on the booking system is uncertain. While unbundling may reduce bias, it could also affect how efficiently booking systems operate. As a result, the overall benefit is expected to be positive but limited. The impact score for this measure could range between +2 and +4.

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No	Policy measure	Logic for impact on qualitative parameters (QPs)
		Journey type: Both national and international journeys may benefit. International journeys see particular improvements, as indispensable RU often run cross-border services that were previously excluded from MDMS platforms. National services, especially those provided by smaller or independent operators, will also gain better booking options through the MDMS platforms. **Attractiveness:** The PM grouping is expected to be stronger on high-demand, attractive routes, where indispensable RU platforms and indispensable RU are most active and may compete the most with alternative operators. These are the areas where exclusion of certain services from booking is most common, and where platform bias can most significantly distort consumer choice. On less attractive routes, the impact is likely to be smaller, as indispensable RU platforms may not be active and indispensable RU may not be present, though some benefits may still occur if the obligation leads to wider inclusion of smaller transport operators. **MDMS advancement:** As with previous Groupings, the impact is expected to be greater in MDMS follower Member States, where integration is currently more limited. This Grouping would more rapidly facilitate an expansion of the MDMS' offerings to all indispensable RUs, allowing some level of competition with more established platforms. **Overall assessment:** By combining the obligation to enter into ticketing agreements with indispensable RU and the structural unbundling of indispensable RU platforms, this measure addresses both access and fairness in the booking process. A similar impact is expected to Grouping 2, but with a slightly greater impact for attractive routes in follower Member States.

Source: Ricardo et al. (2026), Impact assessment support study

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1.3.2.5. MPA scoring outputs

The table below presents the share of the maximum potential modal shift and maximum reduction in travel time that can be achieved in each cluster, for each policy option. It shows that PO2 presents a higher modal shift potential than PO1 due to the additional obligation to share, while PO3 presents the highest modal shift potential due to the integration of offerings on MDMS platforms.

Table 47: Share of the maximum potential modal shift and maximum reduction in travel time that can be achieved in each policy option

Cluster short description				Share of modal shift potential captured			
Cluster	**Route**	**MDMS**	**Attractiveness**	**PO1**	**PO2**	**PO3**	**PO4**
A	National	Leader	Both attractive	30%	60%	70%	70%
B	National	Planned adopter/follower	Both attractive	20%	80%	80%	80%
C	International	At least one leader	Both attractive	20%	60%	80%	60%
D	International	Planned adopters/followers	Both attractive	20%	80%	80%	80%
E	National	Leader	Hybrid	20%	50%	60%	60%
F	National	Planned adopter/follower	Hybrid	20%	50%	70%	50%
G	International	At least one leader	Hybrid	20%	50%	60%	60%
H	International	Planned adopters/followers	Hybrid	20%	60%	80%	60%
I	National	Any	Both moderately attractive	20%	40%	60%	50%
J	International	Any	Both moderately attractive	10%	50%	60%	50%

Source: Ricardo et al. (2026), Impact assessment support study

Combining these scores with the estimated maximum potential modal shift (interpretated as the percentage increase in journeys using collective transport means, such as trains and coaches, and a corresponding decrease in journeys using less sustainable modes) and taking an average of the outcomes for each cluster, produces the outcomes displayed in Figure 9.

In comparison to the 1.7% maximum potential, PO3 achieves the highest shift from 2035 onwards (1.19%), while PO1 generates the lowest shift from 2035 onwards (0.34%). As explained above, these figures were validated as part of the stakeholder consultation workshop held on 12th June 2025. More details on the workshop are presented in section 1.3.2.2 of Annex 4. In summary, there was broad agreement from stakeholders participating in the workshop on these inputs. However, noting the weaker response rate for PO3 and PO4[300], sensitivity analysis has been performed considering lower model shift across all policy options. The results of the sensitivity analysis are presented in section 7.6.

[300] Around half of attendees replied to the questions (49 out of 108, or 45%)

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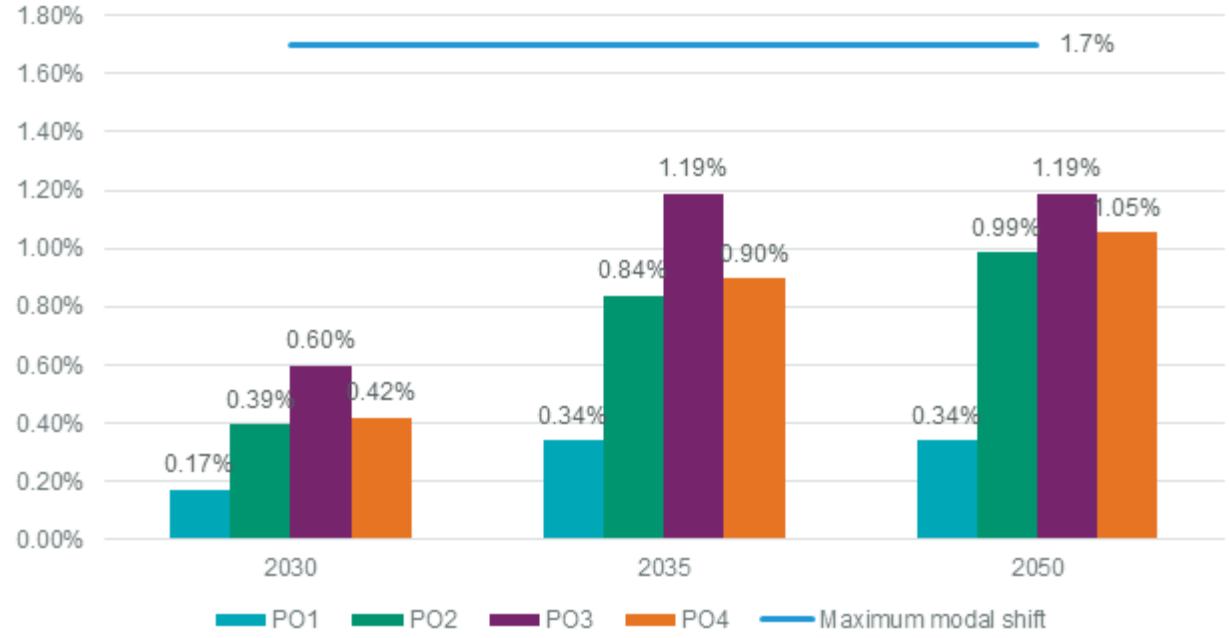
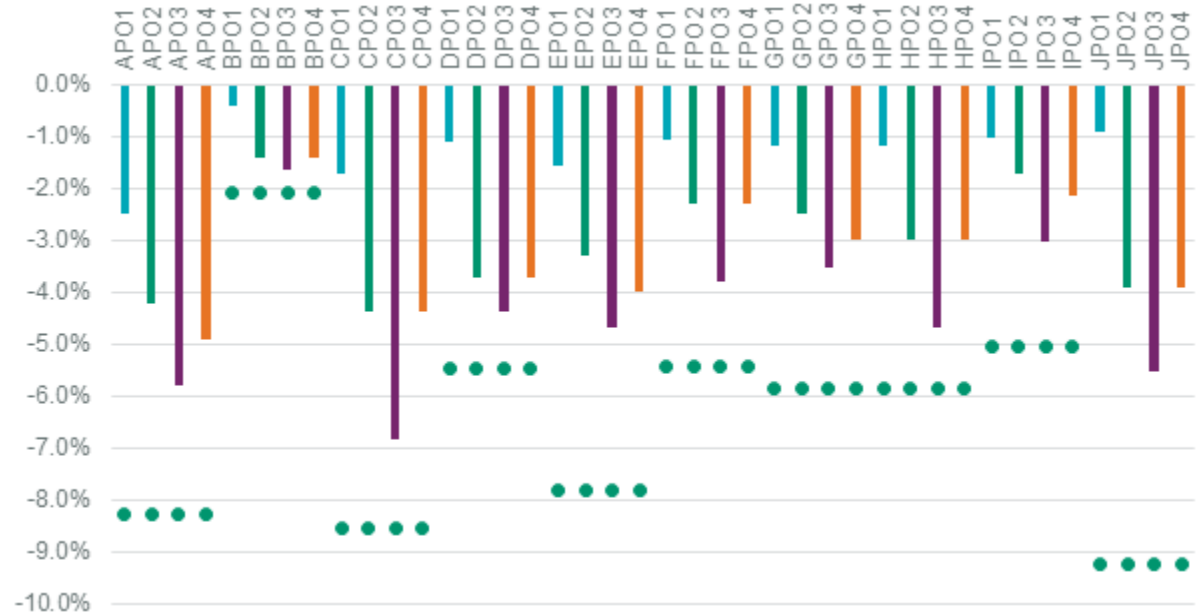
Figure 9: Average modal shift in each policy option relative to the maximum potential modal shift



Source: Ricardo et al. (2026), Impact assessment support study

The MPA scoring outputs were also applied to the maximum **reduction in the journey time** resulting from the 100 OD pairs analysis (see section 1.3.2.3 of Annex 4). Results are shown in the figures below, where the code of each bar (e.g. APO1) denotes the cluster (A) and the policy option (PO1). The maximum reduction in journey time is not the same in each cluster. The first figure below shows the reduction in the journey time for 2035 (where PO1 and PO3 have delivered their highest potential), and the second figure below for 2050 (after PO2 and PO4 have delivered their highest potential). The relationships between the POs are the same as those identified in the modal shift outputs above, since they are based on the same progress towards the maximum potential.

Figure 10: Estimated change in journey time for each policy option compared to the maximum potential for each cluster in 2035



Source: Ricardo et al. (2026), Impact assessment support study

Figure 11: Estimated change in journey time for each policy option compared to the maximum potential for each cluster in 2050

Source: Ricardo et al. (2026), Impact assessment support study

1.3.3. Interface module

The Interface Module was developed in the context of the impact assessment support study to convert the outputs of the MPA module for each cluster into modal shift impacts and changes in travel time that can be used together as inputs in the ASTRA model.

The Interface Module builds on Origin-Destination (OD) passenger matrices at NUTS3 level, covering EU27 countries, representing for each specific year (five-years' steps up to 2050):

- Passenger trips between OD pairs by mode;
- The average time of a passenger trip between OD pairs by mode.

The transport modes (and combinations) considered in the OD matrices are:

- Unimodal: Car, rail conventional (regional and intercity), high speed rail, coach, air, ferry (maritime);
- Multimodal: air+rail, rail+coach, air+coach, car+ferry, rail+ferry, coach+ferry, air+ferry.

The Interface Module was developed using MySQL to handle matrices of over 1.3 million OD pairs within the 27 EU Member States. It simulates the impacts in five-years' time steps up to 2050. The module uses the MPA results by cluster as input, performs calculations based on matrices at NUTS3 level and produces changes at aggregate level for modal split and travel time, in the format that can be fed as input into the ASTRA model.

The starting points for the Interface Module are the TRUST network model[301] and the OD matrices by mode of transport complemented with intra-NUTS3 trips (that were especially needed to consider regional trips in large zones). The regional trips data was derived based on the ASTRA model and EUROSTAT data. Furthermore, additional information was considered for multimodal trips, building on the 2024

[301] TRUST (TRansport eUropean Simulation Tool) is a European scale transport network model simulating road, rail and maritime transport for both passengers and freight (https://www.trt.it/en/tools/trust/).

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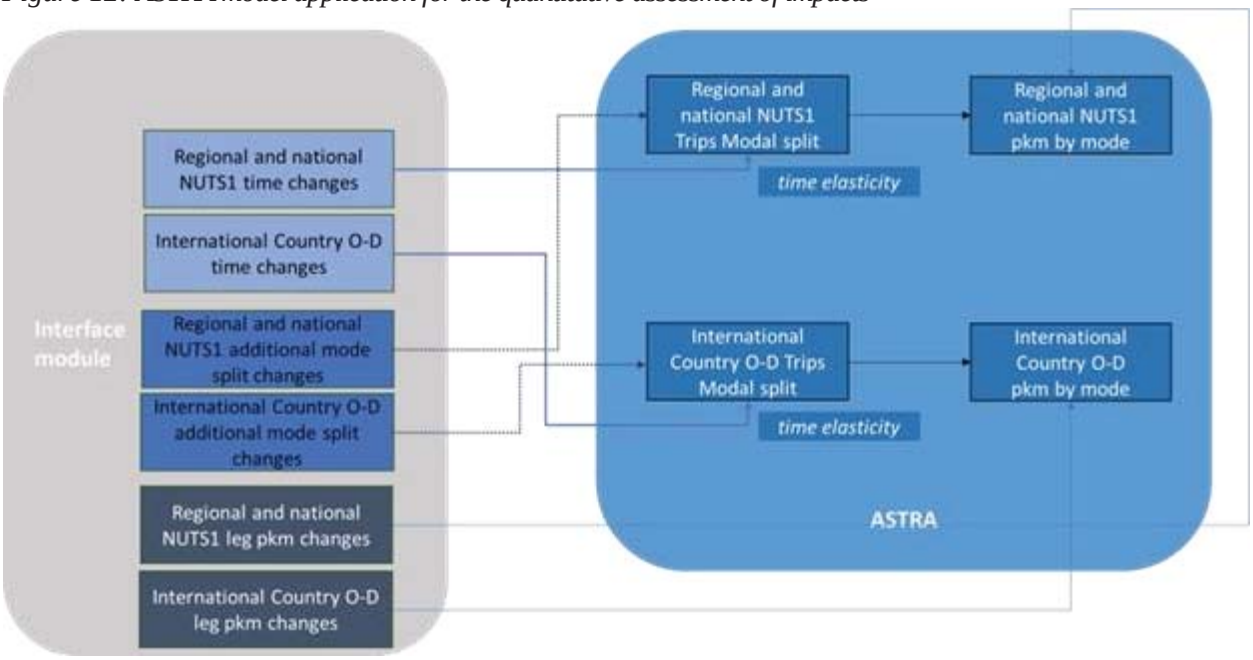
Eurobarometer survey and a JRC EU Survey on issues related to transport and mobility conducted in 2019. The average time of a passenger trip between OD pairs by mode were derived from the TRUST transport network model, complemented by the in-depth analysis of the 100 OD pairs performed as part of the impact assessment support study. The TRUST network model is designed to assign passenger demand by mode to different pathways/routes on the related network. Each route is associated with a cost and travel time based on its distance and characteristics (tolled motorway or main roads, high speed rail or conventional services, etc.). This information is weighted based on trips assigned to each route in the TRUST model to calculate the average time between OD pairs by mode. Passenger transport demand of the Interface Module evolves over time according to the baseline scenario up to 2050 (i.e. including also TEN-T network development over time, as simulated in the TRUST network model).

1.3.4. Assessment of impacts of the policy options with the ASTRA model

For simulating the impacts of the policy options, the outputs from the interface module (i.e. changes in modal shift and travel time) are used as inputs in the ASTRA model, which then estimates the overall impacts on transport activity and related user costs and external costs savings. An overview of the ASTRA model application and the input used for simulating the effects of the policy options is provided in the figure below.

Figure 12: ASTRA model application for the quantitative assessment of impacts



Source: Ricardo et al. (2026), Impact assessment support study

The outputs from the interface module are provided in the ASTRA transport demand format: at NUTS1 level for regional and national changes and at country-to-country level for international changes, relative to the baseline. The output is also expressed in terms of main mode of transport, meaning associated with the mode used for the longest part of the trip.

More specifically, the outputs from the interface module feed into the passenger demand module of ASTRA for each specific geographical domain (regional, national, international). Changes in travel time and changes in modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms are both used as inputs in the ASTRA model. The changes in transport activity in passenger-kilometres[302] from the interface module are also used to consider changes in multimodal

[302] Based on distance travelled by mode in each leg.

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trips that, following the ASTRA model approach, have to be aggregated to the main mode. This allows to derive the passenger-km travelled by mode for the consequent assessment of external costs[303].

1.3.5. Cost-benefit analysis (CBA) module

The Cost Benefit Analysis (CBA) module is used to calculate the costs and/or benefits of policy measures, aggregate them into options, and compare the costs and benefits of each policy option. The CBA builds on the Standard Cost Model and estimates the cost of each policy option by combining the number of platforms and operators, and the number of agreements between MDMS platforms and transport operators, with cost data. It calculates both the costs by policy measure and by policy option. In addition, the model calculates the monetised impacts of external costs for each policy option relative to the baseline by combining the impacts on e.g. CO2 emissions, air pollution emissions, number of lives saved and injuries avoided from the ASTRA model with the corresponding unit external cost values from the 2019 Handbook on the external costs of transport[304].

2. BASELINE

2.1. Main assumptions of the baseline scenario

As explained in section 1 of Annex 4, the baseline scenario for this impact assessment has been developed with the PRIMES-TREMOVE model. The baseline scenario of the ASTRA model, that is used for assessing the impacts of the policy options, has been calibrated on the PRIMES-TREMOVE results.

The assumptions used for developing baseline scenarios that underpin impact assessments in the energy, transport and climate policy areas, are consulted regularly with Member States and other stakeholders in the context of the so-called Reference scenario process. The baseline scenario underpinning this initiative builds on the work on the EU Reference scenario process 2025, that is currently ongoing. In this context, the PRIMES-TREMOVE model (and subsequently the ASTRA model) has been calibrated on the latest available statistics. The macro-economic projections, the energy price projections and the technology assumptions have been consulted with Member States during a meeting of the Reference scenario expert group on 5 June 2024. In addition, bilateral meetings with Member States took place between September 2024 and April 2025 to discuss the national policies to be reflected, based on the updated National Energy and Climate Plans prepared by the Member States under the Regulation 2018/1999 on the Governance of the Energy Union and Climate Action and submitted to the Commission during 2024-2025.

The technology assumptions, that drive the magnitude of the impacts on costs and benefits, are based on a rigorous literature review carried out by E3-Modelling in collaboration with the JRC and building on studies conducted for the Commission and used in previous impact assessments on related topics[305]. Continuing the approach adopted in the long-term strategy in 2018 and for the Reference Scenario 2020, the Commission consulted on the technology assumptions with Member States and stakeholders in 2024, as further explained in the following sections.

The baseline scenario reflects the projected higher energy prices driven by the Russian invasion of Ukraine. Beyond this aspect, it was however not possible to quantify the impact of the Russian invasion of Ukraine, as there is large uncertainty with respect to its impacts, in particular for the medium to long-term. While its impact

[303] As an example, an increase in multimodal trips by "coach-rail" is assigned to rail as main mode in ASTRA, but the alignment of distance travelled in each leg of the trip allows to consider also an increase of passenger-km by coach as part of that multimodal trip and consequent reduction in the distance travelled by rail (rather than the entire distance being associated with the rail mode).
[304] Handbook on the external costs of transport - Publications Office of the EU
[305] Sources include: ACEA, BloomberNEF, Goldman Sachs, ICCT, IEA, Ricardo, DEA, other scientific publications.

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is felt in terms of trade (e.g., grain, bulk fertilizers and hydrocarbons) and in certain geographical areas, the impact on the baseline of this initiative is expected to be limited.

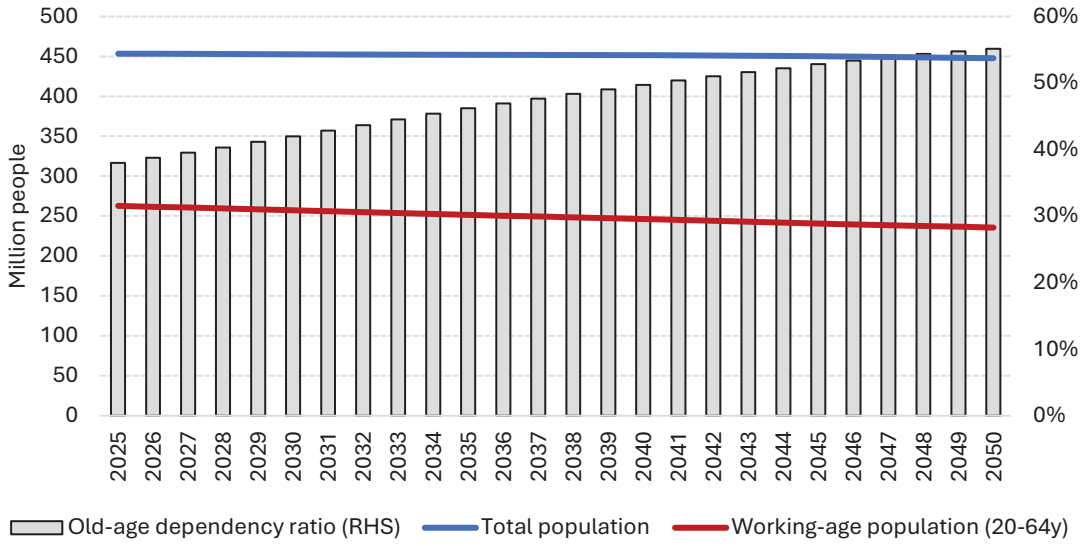
The main assumptions related to economic development, international energy prices and technologies are described below.

2.1.1. Economic assumptions

The modelling work is based on socio-economic assumptions describing the expected evolution of the European society. Long-term projections on population dynamics and economic activity form part of the input to the model and are used to estimate transport activity, particularly relevant for this impact assessment.

Population projections rely on Eurostat's long-term projections (EUROPOP2023)[306]. The EU population is projected to remain broadly stable over the projection period to 2050. However, there is a noticeable trend towards the ageing of the population, with a 10% decline in the working-age population aged 20 to 64 between 2025 and 2050 and an increase in the old-age dependency ratio from 38% to 55.2% (Figure 13).

Figure 13: Population assumptions



Source: Eurostat

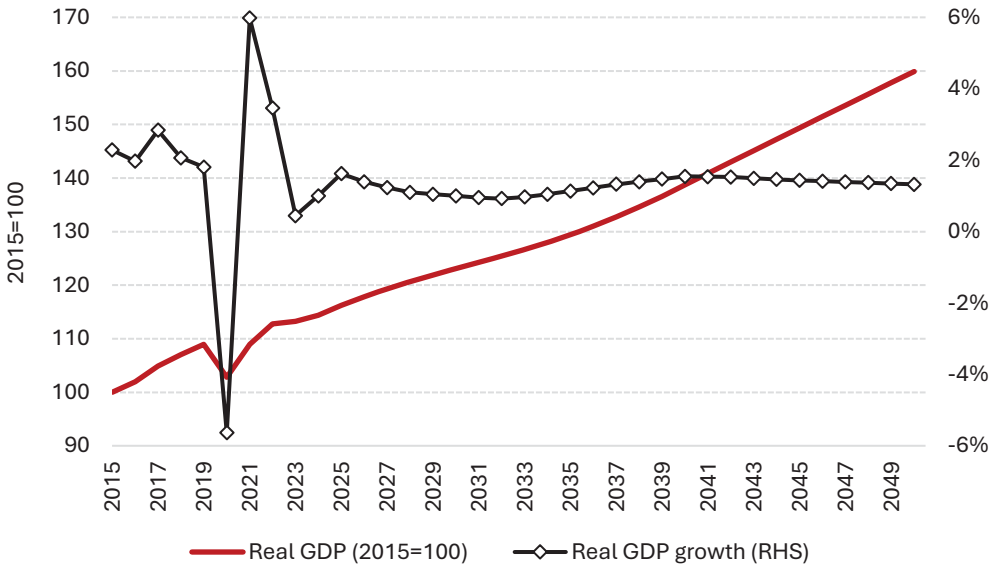
Economic projections have taken place in an unusually unstable context in the past few years, as the EU and world economies were hit first by the COVID pandemic and second by Russia's war of aggression against Ukraine, with the ensuing sharp increase in international energy prices. The GDP projections for 2025 rely on the Spring Forecast[307] of the Directorate General for Economic and Financial Affairs (DG ECFIN). From 2025 onwards, the GDP growth projections converge to those prepared by DG ECFIN for the 2024 Ageing Report[308]. At EU level, real GDP is projected to be 23% higher in 2030 than in 2015, 39% higher in 2040, and 60% higher in 2050 compared to 2015.

Projections on the sectoral composition of GDP were prepared using the GEM-E3 computable general economic model. It is projected that the EU economy will continue to become increasingly services-oriented, with the sector's share rising from close to 74% of total gross value added (GVA) in 2016-2020 to around 75% in 2040 and 76% in 2050. While the share of the transport sector in total GVA declined during the COVID pandemic, the projections assume that this was only a temporary phenomenon, and that the sector's

[306] EUROPOP2023 (proj_23n).
[307] DG ECFIN, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6782
[308] DG ECFIN, 2024 Ageing Report. Economic and budgetary projections for the EU Member States (2022-2070).

share remains broadly constant at close to 5% of the total. This is consistent with recent economic developments.

Figure 14: EU GDP (2015 = 100) and GDP growth (%)



Source: DG ECFIN

2.1.2. International energy prices assumptions

Alongside socio-economic projections, transport modelling requires projections of international fuel prices. The table below shows the oil prices assumptions of the baseline used in this impact assessment.

Table 48: Oil prices assumptions

Oil	2015	2020	2030	2040	2050
in $'2023 per boe	62.6	48.0	92.8	105.7	131.6
in €'2023 per boe	57.5	44.0	85.2	97.0	120.7

2.1.3. Technology assumptions

Modelling scenarios on the evolution of the transport system is highly dependent on the assumptions on the development of technologies - both in terms of performance and costs. For the purpose of the development of the baseline, these assumptions have been updated based on a rigorous literature review carried out by external consultants in collaboration with the JRC.

Continuing the approach adopted in the long-term strategy in 2018 and for the Reference Scenario 2020, the Commission consulted on the technology assumptions with Member States and stakeholders in 2024. In particular, the technology database of PRIMES-TREMOVE transport model was discussed with Member States during a meeting of the Reference scenario expert group on 5 June 2024. They also benefited from a dedicated consultation workshop with stakeholders, held on 22-23 October 2024.

2.1.4. Policies in the Baseline scenario

In line with the Better Regulation toolbox (Tool #60), the baseline has been designed to include the initiatives of the 'Fit for 55' package[309] and the proposed amendment of the European Climate Law to include a 2040

[309] Delivering the European Green Deal - European Commission

climate target for the EU[310], of reducing the EU's net greenhouse gas emissions by 90% by 2040 relative to 1990, with a limited contribution towards the 2040 target of high-quality international credits. It also reflects the CO_2 emission performance standards for heavy-duty vehicles[311], the Euro 7 standards[312], the revised TEN-T Regulation[313], as well as the initiatives part of the Greening Freight package[314] and Roadworthiness package[315]. It also reflects the National Energy and Climate Plans prepared by the Member States under the Regulation 2018/1999 on the Governance of the Energy Union and Climate Action and submitted to the Commission during 2024-2025. The baseline scenario assumes no further EU level intervention beyond the ITS Directive[316] and the Delegated Regulation on multimodal travel information services (MMTIS)[317]. The CRS Code of Conduct[318] would continue to apply. More details on the baseline scenario assumptions and results are provided in Annex 4 (section 2).

The baseline also incorporates perspectives on potential future developments captured in the 2022 Strategic Foresight Report[319] and during a foresight workshop organised by DG MOVE and JRC on 10 February 2025, analysing the impacts of the megatrends and drivers of change on the EU transport sector[320]. In particular, the projected transport activity draws on the long-term population projections from Eurostat and GDP growth from the *Ageing Report 2024*[321]. An increasingly connected world with high levels of access to digital products and services and in which new services, business models, life and work patterns emerge is the background against which the initiative is assessed.

2.2. Baseline scenario results

2.2.1. Number of passengers

Total number of passengers. The total number of passengers in the EU travelling by air, coach (excluding local and suburban public transport), rail and waterborne transport is projected to grow from 12.9 billion in 2019 to 14 billion in 2028, 15.4 billion in 2030 and 17.8 billion in 2050 (19% increase for 2019-2030 and 38.1% increase for 2019-2050), following the recovery from the COVID pandemic. The number of passengers travelling by air within the EU would increase from 515 million in 2019 to 538 million in 2028, 542 million in 2030 and 644 million in 2050 (5.1% growth for 2019-2030 and 24.9% for 2019-2050). The number of passengers travelling by rail is projected to increase faster than for air (from 8.6 billion in 2019 to 9.6 billion in 2028, 10.7 billion in 2030 and 12.5 billion by 2050), driven in particular by the completion of the TEN-T core network by 2030, the extended core network by 2040 and of the comprehensive network by 2050, supported by the CEF, Cohesion Fund and ERDF funding, but also by measures of the 'Fit for 55' package, the revised TEN-T Regulation, as well as the initiatives part of the Greening Freight package. The number of passengers travelling by coach is projected to increase from 3.3 billion in 2019 to 3.4 billion in 2028, 3.7 billion in 2030 and 4.2 billion by 2050 (9% increase for 2019-2030 and 24.1% increase for 2019-2050). The number of passengers travelling by waterborne transport would also increase in the baseline scenario, from 418 million in 2019 to 465 million in 2028, 466 million in 2030 and 518 million in 2050 (11.4% increase for 2019-2030 and 23.8% growth for 2019-2050).

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[310] COM(2025) 524 final
[311] Regulation (EU) 2024/1610
[312] Regulation - 2024/1257 - EN - EUR-Lex
[313] Regulation - EU - 2024/1679 - EN - EUR-Lex
[314] Green Deal: Greening freight for more economic gain with less environmental impact (europa.eu).
[315] Updated rules for safer roads, less air pollution and digital vehicle documents
[316] OJ L, 2023/2661
[317] OJ L, 2024/490
[318] OJ L 35, 4.2.2009, pp. 47–55.
[319] COM(2022) 289 final
[320] https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub_en#explore
[321] DG ECFIN, 2024 Ageing Report. Economic and Budgetary Projections for the EU Member States (2022-2070) - Economy and Finance

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Table 49: Projected number of passengers at EU level in the baseline, by mode (million)

	2019	2028	2030	2040	2050	2019-2030	2019-2040	2019-2050
Total air, coach, rail and waterborne passenger transport								
Coach *	3,345	3,357	3,646	3,935	4,152	9.0%	17.6%	24.1%
Rail transport **	8,639	9,639	10,720	11,864	12,525	24.1%	37.3%	45.0%
Air transport	515	538	542	611	644	5.1%	18.5%	24.9%
Waterborne transport***	418	465	466	485	518	11.4%	15.8%	23.8%
Total number of passengers	**12,918**	**13,998**	**15,374**	**16,894**	**17,839**	**19.0%**	**30.8%**	**38.1%**

*Source: Ricardo et al. (2026), Impact assessment support study; ASTRA. Note: * Coaches (excluding urban and suburban transport); ** Rail transport (excluding tram and metro); *** Waterborne transport refers to maritime transport.*

Multimodal passengers. Drawing on data for the historical period collected in the context of the exploratory study on passenger rights in the multimodal context[322] and projections developed in the context of the impact assessment support study, the number of multimodal passengers is projected to increase from 91 million in 2019 to 91.6 million in 2028, reaching 94.4 million in 2030 and 130.8 million in 2050 in the baseline scenario. The air-rail passengers represent over 60% of the total multimodal passengers, air-coach passengers above 30%, while the share of rail-coach passengers is limited to around 1% of the total number of multimodal passengers. In terms of market size, the air-rail passengers represented 11.8% of the total number of intra-EU passengers travelling by air in 2019 and their share is projected at 11.3% in 2030, following the recovery from the COVID-19 pandemic, going up to 12.6% by 2050. The air-coach passengers represented around 0.9% of the total number of coach passengers in 2019, going up to 1.2% by 2050 in the baseline scenario, while the rail-coach passengers represent below 0.05% of the coach passengers over the whole-time horizon.

Table 50: Projected number of multimodal passengers and the market share in the baseline scenario

	2019	2028	2030	2040	2050
Number of multimodal passengers (million)	91	91.6	94.4	114.3	130.8
Air-rail passengers	60.8	61.3	61.3	72.9	80.9
Air-coach passengers	29.2	29.2	32	40.1	48.4
Rail-coach passengers	1	1	1.1	1.3	1.5
Market size					
Air-Rail (% of air market size)	11.80%	11.40%	11.30%	11.90%	12.60%
Air-Coach (% of bus and coach market size)	0.90%	0.80%	0.90%	1.00%	1.20%
Rail-Coach (% of bus and coach market size)	0.03%	0.03%	0.03%	0.03%	0.04%
Share in multimodal transport					
Air-Rail (% of air market size)	66.80%	67.00%	64.90%	63.80%	61.80%
Air-Coach (% of bus and coach market size)	32.10%	31.80%	33.90%	35.10%	37.00%
Rail-Coach (% of bus and coach market size)	1.10%	1.10%	1.20%	1.20%	1.10%

Source: Ricardo et al. (2026), Impact assessment support study

2.2.2. Number of MDMS platforms

Based on desk research, first a database of MDMS platforms currently operating across EU was created in the context of the impact assessment support study. The database includes MDMS platforms with relinking capabilities or better (i.e. direct booking functionality). MDMS platforms only providing information on travel offerings, that do not actually provide the ability to purchase tickets, are out of scope. MDMS platforms

[322] EY (2019), Exploratory study on passenger rights in the multimodal context: final report, https://data.europa.eu/doi/10.2832/72925

operating only within cities are also out of scope. The initial number of MDMS platforms was increased by 25%, to account for the uncertainty[323].

It should be noted that many B2C platforms operate at regional level or serve citizens in a handful of Member States. On the other hand, B2B platforms, that are dominated by the air ticket distribution channel, tend to offer tickets EU-wide. The number of MDMS platforms, by category of platform, estimated for 2025 is provided in the table below.

Table 51: Number of MDMS platforms by type of platform and business type in 2025

Platform type	Business type	Number of platforms (large and SMEs)	Of which, number of SME platforms
Member State specific			
Indispensable rail	B2C	19	0
Indispensable other	B2C	1	0
Other (mostly OTA and TMCs)	B2C	105	55
Total	**B2C**	**125**	**55**
EU-wide			
Indispensable rail	B2C	0	0
Indispensable other[324]	B2C	3	0
OTA	B2C	26	9
TMC[325]	B2C	63	30
MSE	B2C	50	23
NCA[326]	B2B	94	72
CRS / GDS	B2B	3	0
Total	**B2C + B2B**	**239**	**134**
Total (Member State specific and EU-wide)			
	B2C	266	116
	B2B	98	72
Total	**B2C + B2B**	**364**	**189**

Source: Ricardo et al. (2026), Impact assessment support study

Platforms were further distributed among three groupings (i.e. leader, planned adopters and followers) based on the country of origin for the Member State specific platforms and for EU-wide platforms these were distributed among the groupings proportional to the total population under each group.

Table 52: Number of B2B and B2C platforms by grouping in 2025

Business type	Grouping	Number of platforms (large and SME)	Of which SME platforms
B2C	Leaders[327]	116	51
B2C	Planned adopters[328]	112	49
B2C	Followers[329]	38	16
B2C	**Total**	**266**	116

[323] There is no European database of these services. Not all existing platforms may be identifiable through desk research due to the way they define or market themselves.
[324] There is uncertainty with this figure due to limitations with data in particular for MSE, OTAs.
[325] https://www.businesstravelnewseurope.com/Europes-leading-TMCs/2025/Europe-rankings
[326] https://a4e.eu/wp-content/uploads/A4E-intermediaries-study_FINAL-02.pdf
[327] Country of origin for the leader platforms include DE, AT, DK, LU, FI, ES and NL.
[328] Country of origin for the planned adopter platforms include FR, PL, IT, BE, PT, MT, CY, EL, BG and EE.
[329] Country of origin for the follower platforms include HR, LT, HU, SE, CZ, IE, SI, LV, RO and SK.

Business type	Grouping	Number of platforms (large and SME)	Of which SME platforms
B2B	Leaders	37	28
B2B	Planned adopters	45	33
B2B	Followers	16	12
B2B	**Total**	**98**	72
B2C + B2B	Leaders	154	78
B2C + B2B	Planned adopters	157	82
B2C + B2B	Followers	53	28
B2C + B2B	**Total**	**364**	189

Source: Ricardo et al. (2026), Impact assessment support study

The deployment of MDMS platforms in the baseline is projected based on the assumed level of progress towards the number of platforms in a 'mature market', linked to the expansion of service coverage and service level. The 'mature market' represents the level that is expected to be reached as service deployment approaches full coverage. This is assumed to imply an increase in the number of platforms although it should be acknowledged that existing platforms could also improve their offerings, which could further lead to a consolidation towards a lower number of platforms.

The description of a 'mature market' was derived based on the leader group. A 'platforms per capita' metric was calculated for the leader Member States, estimated by dividing the number of platforms available in each leader Member State by the population[330]. A weighted average was then calculated across the leader Member States based on population, resulting in 2.25 platforms per million people. This metric is then applied to the population corresponding to the planned adopters' and followers' group to yield the total number of platforms expected in a 'mature market', namely 1,010.

Table 53: Number MDMS platforms by grouping in a 'mature market'

Grouping	Assumed number of platforms per million capita in a 'mature market'	Total population (million)	Estimated number of platforms in the EU27 assuming a 'mature market'
Leaders	2.25	171.4	385
Planned Adopters	2.25	206.3	464
Followers	2.25	71.6	161
Total	2.25	**449.3**	1,010

Source: Ricardo et al. (2026), Impact assessment support study

The development in the baseline for each grouping is linked in the calculations to the projection of services deployment calculated in the MPA module. The identified qualitative parameters (QPs), which are weighted in terms of their contribution, are used to project service coverage and estimate the progress towards the number of MDMS platforms in a 'mature market'. The logic for the baseline scoring within the MPA is explained in the table below.

Table 54: Qualitative parameters scoring logic withing the MPA for the evolution of number of MDMS platforms in the baseline

	Logic for impact on qualitative parameters (QPs)
Baseline	**QP1: Completeness and accuracy of info**

[330] The platforms per capita metric was estimated as the sum of two elements: Member States specific platforms divided by Member States population, and EU-wide platforms divided by EU27 population. The second element is therefore the same for all Member States and reflects the fact that all Member States have access to some EU-wide platforms.

	Logic for impact on qualitative parameters (QPs)
	Direction of impact expected to be **neutral or positive**, with **i**mpact scores ranging from **0 to +1**: The deployment of MDMS platforms and tickets sold via MDMS is expected to increase over time in the baseline. Along higher deployment, an increased integration of RUs' offers in MDMS platforms is expected although limited. Industry initiatives, such as the CER Ticketing Roadmap, foresee actions to increase the visibility of fares and to enable the purchase of international and domestic tickets through a wider range of distribution channels, including online apps. Thus, an increased sharing of rail ticketing data can be expected in line with CER members' commitment to increase the availability of tickets. However, the voluntary nature of these actions, and the lack of provisions against excluding platforms and other operators from reciprocal agreements, is likely to result in this integration following the currently observed patterns where the data sharing approach is dictated by commercial interests preventing a full integration of the transport offering in all relevant third-party platforms. Thanks to the ongoing opening of the rail market, new RUs entering the market are expected to increase their market share in the rail passenger services market. These new RUs have a stronger interest to sell their tickets using diverse range of distribution channels, as these tickets are their sole source of income. Nevertheless, the limited integration of rail services into MDMS platforms over time in the baseline is expected to result in limited completeness of the rail offering on the MDMS platforms. In addition, even in cases in which transport offerings are integrated in MDMS platforms, this does not secure that the information made available to different platforms will be of the same quality. This is because of the preferential treatment both on the side of transport operators and of MDMS platforms when choosing what information will be shared or promoted on different ticket distribution platforms. Therefore, a limited level of progress is expected with respect to the completeness and accuracy of information. **QP2: Ability to book** Direction of impact expected to be **neutral or positive**, with **i**mpact scores ranging from **0 to +1**: The user experience and ease of planning and booking a multimodal or multi-operator trip is one of the factors recognised as affecting the modal choice for a journey, as showcased by the Eurobarometer survey findings. With the increasing deployment and expanding scope of MDMS platforms, more passengers are expected to find such platforms useful to plan their trips. As platforms evolve and gain a better understanding of their users, further innovations are expected to improve the user experience over time, but the incentive to do so is limited in the baseline due to the lack of a regulatory framework conducive to creating a level playing field that would further encourage such ventures.

Source: Ricardo et al. (2026), Impact assessment support study

As explained in section 1.3.2 of Annex 4, scores are assessed on a scale of 1 to 5, meaning that a score of 1 would correspond to a progress towards a 'mature market' of 20% in 2050. Considering a linear improvement towards 2050, the additional service coverage in the baseline is provided in the table below.

Table 55: Assumptions on the additional service coverage in the baseline relative to 2025, by grouping

Scenario	Grouping	2028	2030	2040	2050
Baseline	Leader	0%	1%	5%	10%
Baseline	Planned adopter	0%	2%	11%	20%
Baseline	Follower	0%	2%	11%	20%

Source: Ricardo et al. (2026), Impact assessment support study

Starting from the baseline service coverage, equal to the current number of platforms over the number for a 'mature market' (for leaders: 154/385 = 40%), the above metrics for additional service coverage are applied as a percentage increase (for leaders in 2050: 40% x (1+10%) = 44%) and then multiplied by the number of platforms in a 'mature market' (for leaders equal to 385) to yield the number of MDMS platforms projected each year (for leaders in 2050, 169 platforms). The projected number of MDMS platforms in the baseline scenario are provided in the table below.

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Table 56: Estimated number of platforms across the EU in the baseline scenario

	Number of platforms in the baseline in EU27			
	2028	**2030**	**2040**	**2050**
Leaders	154	155	162	169
Planned Adopters	157	160	174	188
Followers	53	54	59	64
Total	**364**	**369**	**395**	**421**

Source: Ricardo et al. (2026), Impact assessment support study

The growing digitalisation of transport services and the emergence of new business models for ticket distribution is expected to lead to an increase in the number of MDMS platforms over time. The number of MDMS platforms is projected to increase from 364 in 2025 to 369 in 2030, and 421 in 2050 in the baseline scenario. The number of agreements between MDMS platforms and transport operators is also expected to increase, from 48,624 in 2025 to 49,321 in 2030, and 56,295 in 2050. This trend reflects the projected growth in ticket sales across all transport modes, alongside the rising share of online sales. However, differences are expected between modes. In aviation ticket distribution has already undergone significant transformation. Since IATA introduced new standards in 2015, 75 NCAs have entered the global air distribution market. At the same time, the OTA market has consolidated around players offering integrated travel and hotel bookings. As a result, growth in air-focused platforms is likely to slow, with new entrants mainly offering differentiated, integrated solutions tailored to specific consumer or corporate needs. Beyond aviation, significant potential remains for MDMS platforms integrating land-based transport, which are not yet widely deployed across the EU. Although 364 MDMS platforms have been identified, 14 of the 27 EU Member States have at most one platform offering more than basic travel information for land-based modes. No platform currently provides EU-wide direct booking across air, land, and water modes; even the most advanced only offer re-linking functionality. This creates opportunities for competitors to develop multimodal direct booking solutions, particularly at national or regional level. However, in the baseline further growth is likely to be constrained by the absence of a regulatory framework that ensures a level playing field. Overall, the number of MDMS platforms is expected to increase gradually, with growth concentrated on those offering direct booking across transport modes.

2.2.3. Number of transport operators

The number of transport operators by transport mode used in the assessment is provided in the table below. The number of transport operators is assumed to remain stable over time in the baseline scenario. The second column shows the total number of operators. The third column shows the number of operators in scope[331]. Some measures (PM12 and PM13) are limited to indispensable RUs, i.e. RUs with SMP (as described in section 5) and those operating PSO and cross-border services. These are shown in the fourth column of the table below. Finally, the fifth column shows the number of SMEs, which are out of scope of the policy options but indirectly benefit of the impacts of some of the measures.

Table 57: Number of transport operators

	All operators	**Operators in scope (excluding SMEs)**	**Indispensable RUs (out of operators in scope)**	**SMEs (out of scope)**
Bus and coach (offering services above 50km)[332]	**3,778**	**567**	**0**	**3,211**
Rail[333]	**158**			**9**
Domestic PSO services	119	112	112	7
Domestic non PSO services	8	8	0	0

[331] Whilst SME are not directly affected by the measures, they are still expected to benefit from them as a result of their implementation.
[332] Source: Eurostat, number of operators in 2023
[333] Source: desk research based on websites of railway regulators, RUs and competent authorities.

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	All operators	Operators in scope (excluding SMEs)	Indispensable RUs (out of operators in scope)	SMEs (out of scope)
RUs with SMP[334]	24	24	24	0
Cross-border services[335]	7	5	5	2
Waterborne[336]	**523**	**5**	**0**	**518**
Air carriers[337]	**331**	**331**	**0**	**0**
Total	**4,790**			**3,738**

Source: Ricardo et al. (2026), Impact assessment support study

2.2.4. Number of agreements between MDMS platforms and transport operators

The number of agreements between MDMS platforms and transport operators is calculated by multiplying the number of platforms by the number of operators engaged with each platform. The number of transport operators that each platform engages with differs depending on factors like the modal scope of the platform, its geographical coverage, and the coverage of service offerings.

In the context of the impact assessment support study, an analysis was conducted to assess the number of transport operator partnerships each MDMS maintains. Among the national/regional MDMS, the number of operator agreements ranged from 8 to 100, with a mean of 28 and a median of 20[338]. For EU-wide MDMS, partnerships ranged from 16 to 500, with a mean of 189 and a median of 40.

Table 58: Number of transport operators in partnerships with a sample of MDMS platforms, split by national/regional and EU-wide platforms

National/regional platforms		EU-wide platforms	
MDMS platform	**Number of operator partners**	**MDMS platform**	**Number of operator partners**
ARGE ÖVV	100	Omio	500
reittiopas	50	Rome2rio	423
Open Move Way	30	Trainline	270
Glimble	25	Interrail	40
Mobimeo	22	Tranzer	40
Wien Mobil	20	Eurail	35
HannoverMobil	20	AccessRail	16
Gaiyo	20		
Upstream	20		
Turnn	17		
OV Chipkaart	15		
Natur Trip	10		
Ruter	8		
Average	28	**Average**	189

[334] Covering all 25 Member States with a rail system, those RUs which are indispensable meaning that they have significant market presence on the national rail market.
[335] No additional cross-border PSO services have been added to this number. Most cross-border services that are operated under a PSO contract are part of a bigger contract that comprises domestic PSO services as well.
[336] Source: Eurostat, number of operators in 2023
[337] Air carriers holding an A operating licence in EU27 in 2023 based on ACOL database.
[338] Of the 20 MDMS reviewed, totals for the number of transport operator partnerships were available for 8 systems (*Omio, Trainline, Interrail, Tranzer, Eurail, Wien Mobil, Upstream,* and *AccessRail)*. For the remaining 12 systems (*Rome2rio, ARGE ÖVV, reittiopas, Open Move Way, Glimble, Mobimeo, HannoverMobil, Gaiyo, Turnn, OV Chipkaart, Natur Trip,* and *Ruter*) the totals are based on best available estimates. These estimates draw on publicly accessible information about known partnerships and network coverage, and were developed through analysis conducted in the context of the impact assessment support study.

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National/regional platforms		EU-wide platforms	
Median	20	**Median**	40

Source: Ricardo et al. (2026), Impact assessment support study

The number of agreements between MDMS platforms and transport operators projected in the baseline is shown in the table below. The table shows the total number of agreements, the new agreements negotiated each year, and the number of agreements that need to be renewed. The agreements are assumed to undergo renegotiation every three years. This is consistent with a survey on CRS conducted in 2021 where CRS providers and air carriers indicated that the average contract length is around three years.

Table 59: Number of agreements between MDMS platforms and transport operators in the baseline

Agreement type	2028	2030	2040	2050
Total	48,624	49,321	52,808	56,295
New	-	349	349	349
Renew	16,208	16,440	17,603	18,765

Source: Ricardo et al. (2026), Impact assessment support study

2.2.5. Number of tickets sold via MDMS platforms

The total number of passenger tickets sold via MDMS platforms is projected to increase from 433 million in 2019 to 520 million in 2030 and 854 million by 2050. However, their share in the total number of tickets sold is projected to remain limited in the baseline scenario (7.1% in 2030 and 10.1% in 2050).

The share of rail tickets sold via independent MDMS platforms was estimated at around 3% of the total rail tickets sold in 2019 at EU level. In the baseline scenario, this is projected to go up to 4.1% in 2030 and 7.3% in 2050. This corresponds to around 65 million rail tickets sold via MDMS platforms in 2019, increasing to 111 million in 2030 and 230 million in 2050 due the increase in the MDMS market share and of the total number of rail tickets sold339.

Building on evidence collected from stakeholders, different trends are identified for air tickets sold via B2B platforms and for those sold via B2C platforms. A larger share of tickets will be sold through B2C MDMS, and B2B new content aggregators and the market share of low-cost carriers, which rely less on CRSs, is expected to continue increasing. This is expected to further erode the share of CRSs in ticket distribution, despite the growing number of passengers travelling by air, decreasing from 30.1% in 2019 to 16.8% in 2030 and remaining stable at that level afterwards. This corresponds to 155 million air tickets sold via CRS platforms in 2019, going down to roughly 91 million in 2030 and increasing to 108 million in 2050 due to the growing number of passengers travelling by air. The share of tickets sold through B2B new content aggregators is projected to increase from 5% in 2019 to 13.4% in 2030 and remaining stable at that level afterwards, partially offsetting the decrease in the share of tickets sold through CRSs. This corresponds to 26 million air tickets sold via non-CRS content aggregators in 2019, going up to 73 million in 2030 and 86 million in 2050. Thus, the total share of ticket sold through B2B platforms (CRSs and new content aggregators) is projected to decrease from 35.1% in 2019 to 31.1% in 2024 and 30.2% in 2030 and remaining stable afterwards. This corresponds to 181 million tickets sold via MDMS platforms in 2019, 164 million in 2030 and 194 million in 2050. On the other hand, the share of air tickets sold via B2C platforms is projected to slightly increase from 18% in 2019 to 18.9% in 2030 of the total air tickets sold and remain stable over time.

[339] The information on the number of rail tickets collected as part of the desk study and the stakeholder consultation process in the context of the impact assessment support study was limited and fragmented. The number of tickets sold excluding seasonal passes in the Member States has been estimated based on the number of passengers travelling by rail and assumptions on the share of seasonal passes sold compared to the total number of tickets sold. The number of tickets sold projected in the baseline scenario follows the evolution of the number of passengers travelling by rail, provided in section 2.2.1 of Annex 4.

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The number of air tickets sold via B2C platforms is projected to increase from around 93 million in 2019, to 103 million in 2030 and 122 million by 2050.

The share of coach tickets sold via MDMS platforms was 2.5% in 2019 at EU level. The share is projected to go up to 3.5% in 2030 and 6.6% in 2050 indicating a somewhat slower ramp up compared to that of rail transport. The number of coach tickets sold via MDMS platforms in 2019 was estimated at around 84 million, increasing to 126 million in 2030 and 273 million in 2050 due the increase in the MDMS market share and of the total number of coach tickets sold. The share of waterborne tickets sold via MDMS platforms was about 2.5% in 2019, with a projected increase to 3.4% by 2030 and 6.7% in 2050 at EU level. This corresponds to around 11 million tickets sold via MDMS platforms in 2019, increasing to 16 million in 2030 and 35 million in 2050.

Table 60: Number of tickets sold via MDMS platforms, by mode, in the baseline scenario at EU level (in million and % change relative to 2019)

Mode		Per year					% change relative to 2019		
		2019	2028	2030	2040	2050	2019-2030	2019-2040	2019-2050
Rail	Tickets sold via MDMS	65	82	111	170	230	71%	161%	254%
	Share of total rail tickets sold	3.0%	3.4%	4.1%	5.7%	7.3%			
Air transport B2B	*Tickets sold via CRSs*	*155*	*102*	*91*	*103*	*108*	*-41%*	*-34%*	*-30%*
	Share of total air tickets sold	*30.1%*	*19.0%*	*16.8%*	*16.8%*	*16.8%*			
	Tickets sold via NCA	*26*	*67*	*73*	*82*	*86*	*181%*	*217%*	*234%*
	Share of total air tickets sold	*5%*	*12.4%*	*13.4%*	*13.4%*	*13.4%*			
	Tickets sold via MDMS	181	169	164	185	194	-10%	2%	8%
	Share of total air tickets sold	35.1%	31.4%	30.2%	30.2%	30.2%			
Air transport B2C	Tickets sold via MDMS	92.7	101.5	102.7	115.7	122.0	11%	25%	32%
	Share of total air tickets sold	18.0%	18.8%	18.9%	18.9%	18.9%			
Coach	Tickets sold via MDMS	84	106	126	197	273	51%	136%	226%
	Share of total B&C tickets sold	2.5%	3.2%	3.5%	5.0%	6.6%			
Waterborne transport	Tickets sold via MDMS	11	14	16	25	35	45%	127%	218%
	Share of total waterborne tickets sold	2.5%	3.0%	3.4%	5.0%	6.7%			
All modes	**Tickets sold via MDMS**	**433**	**473**	**520**	**692**	**854**	20%	60%	97%

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Mode		Per year					% change relative to 2019		
		2019	2028	2030	2040	2050	2019-2030	2019-2040	2019-2050
	Share of total passenger tickets sold	**6.7%**	**7.0%**	**7.1%**	**8.6%**	**10.1%**			

Source: Ricardo et al. (2026), Impact assessment support study

2.2.6. External costs of road congestion, and road fatalities and injuries

Road congestion costs in the baseline scenario would increase by about 18% by 2030 and 34% by 2050, relative to 2015. On the inter-urban network this would be the result of growing transport activity along specific corridors, in particular where these corridors cross urban areas with heavy local traffic.

On the other hand, driven by policy in place and the assumed implementation of the Roadworthiness package, the number of fatalities is expected to decrease by 25% by 2030, relative to 2015 (36% decrease by 2050) and the number of injuries by 23% by 2030 (32% reduction for 2015-2050).

Table 61: Road fatalities and injuries in the baseline scenario at EU level

	2015	2028	2030	2040	2050	2015-2030	2015-2040	2015-2050
Fatalities	24,151	18,675	18,082	16,702	15,447	-25.1%	-30.8%	-36.0%
Serious injuries	196,994	153,974	147,516	142,290	133,023	-25.1%	-27.8%	-32.5%
Slight injuries	1,032,040	831,491	797,958	735,180	701,123	-22.7%	-28.8%	-32.1%

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model. Note: calibrated on PRIMES-TREMOVE model results and CARE database; including powered-two-wheelers (P2W)

2.2.7. CO_2 emissions and air pollution emissions

CO_2 emissions from passenger transport are projected to be 27% lower by 2030 compared to 2015, and 96% lower by 2050. The baseline scenario shows that the emission reductions from the passenger transport sector would contribute towards the ambition of at least 55% emission reductions by 2030 and climate neutrality by 2050, while relying to a significant extent on technological solutions (i.e., the uptake of low- and zero-emission vehicles and of renewable and low carbon fuels) and carbon pricing. This is mainly driven by the reduction in emissions from passenger road transport, but also by the reduction in the intra-EU air transport CO2 emissions. The main drivers are the CO_2 standards for light duty vehicles, supported by Alternative Fuels Infrastructure Regulation (AFIR), the Renewables Energy Directive and the ETS2 for road transport. The ReFuelEU aviation Regulation, together with the EU ETS, also leads to significant reductions in intra-EU27 air transport emissions.

NOx emissions are projected to go down by 56% between 2015 and 2030 (94% by 2050), mainly driven by the electrification of the road transport. The decline in particulate matter (PM2.5) would be slightly lower by 2030 at 34% relative to 2015 (89% by 2050).

Table 62: CO_2 emissions and air pollution emissions from passenger transport in the baseline scenario at EU level (in kilo tonnes)

	2015	2028	2030	2040	2050	2015-2030	2015-2040	2015-2050
CO_2 emissions	600,107	505,609	439,217	168,579	22,383	-26.8%	-71.9%	-96.3%
NOx emissions	2,211	1,152	976	423	125	-55.9%	-80.9%	-94.3%
PM2.5 (exhaust) emissions	71	59	47	21	8	-33.7%	-70.9%	-88.5%
CO emissions	3,353	1,760	1,280	387	106	-61.8%	-88.5%	-96.8%

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	2015	2028	2030	2040	2050	2015-2030	2015-2040	2015-2050
VOC emissions	258	171	132	55	25	-48.9%	-78.6%	-90.5%

Source: Ricardo et al. (2026), Impact assessment support study; ASTRA model. Note: calibrated on PRIMES-TREMOVE model results.

3. IMPACTS OF POLICY MEASURE ON COSTS AND COSTS SAVINGS

This section explains the inputs used and provides the assessment of the impacts of the policy measures included in the policy options on costs and costs savings. The synergies between the measures included in the options are already captured in this section.

Costs by Member State are provided where possible. Most B2B MDMS platforms operate EU-wide and it is not possible to split the costs arising from obligations on these platforms by Member State. On the other hand, many B2C platforms are more localised and based on desk research in the context of the impact assessment support study it was possible to ascertain in which Member States they offer services. Thus, for policy measures that affect B2C platforms the associated costs are also provided by Member State, while for B2B platform costs are provided at EU-level only.

The section first presents the main factors affecting the costs and costs savings (i.e. number of MDMS platforms, number of transport operators and number of agreements between MDMS platforms and transport operators), followed by some common assumptions used for estimating costs and costs savings for the policy measures and the detailed explanations of the calculation of the costs and costs savings by policy measure and policy option.

3.1. Main factors affecting the costs and costs savings of policy measures

Three main factors affect the costs and costs savings of the policy measures: the number of MDMS platforms, the number of agreements between MDMS platforms and transport operators, and the number of transport operators.

3.1.1. Number of MDMS platforms

The deployment of MDMS platforms in the policy options is projected based on the assumed level of progress towards the number of platforms in a 'mature market', linked to the expansion of service coverage and service level. The 'mature market' represents the level that is expected to be reached as service deployment approaches full coverage. The number of platforms is projected to increase in all policy options relative to the baseline due to the enhanced ability of MDMS platforms to display more travel options, promoting competition in the online ticketing market. This is assumed to imply an increase in the number of MDMS platforms although it should be acknowledged that existing platforms could also improve their offerings, which could lead to a consolidation towards a lower number of platforms. Such consolidation is assumed to take place towards 2050 in the projections. However, it should be acknowledged that the consolidation could also take place earlier. Thus, the costs for the MDMS platforms should be regarded as the upper bound.

PO1 is projected to result in the lowest number of additional MDMS platforms relative to the baseline (10 in 2030, 45 in 2040 and 19 in 2050) for all time horizon under assessment. In 2030, the sharing obligation (PM13) provides more opportunities for new platforms than in PO1. The effect is the highest in PO2 relative to the baseline (29 additional platforms in 2030), since in PO3 some platforms would anticipate a broader offer by the incumbents due to the hosting obligation (PM14) and see less margin for an alternative offer and thus new platforms (26 additional platforms relative to the baseline in 2030). The effect in PO4 is between that of PO2 and PO3 (27 additional platforms relative to the baseline in 2030) because the new platforms are expected to perceive the unbundled platform as a less strong competitor, once it is no longer tied to the incumbent rail operators. In 2040, in PO2 the incumbent platforms are expected to continue to show a limited offer, and new

platforms would exploit the opportunities that this creates. PO2 thus results in 282 additional platforms relative to the baseline in 2040. In PO3, incumbent platforms provide a full offer, and customers have no reason to switch. The number of new additional platforms is thus expected to be lower than in PO2 (235 additional platforms relative to the baseline in 2040). PO4 sits between PO2 and PO3, since the unbundled platforms are not as strong as the vertically integrated ones and leave more space for the new platform (258 additional platforms relative to the baseline in 2040). By 2050, the market is expected to converge towards the same number of platforms in PO2, PO3 and PO4 (209 additional platforms relative to the baseline). In PO2, the strong competition between platforms is expected to erode the legacy advantage of the incumbents. This creates an intense competition leading to a consolidation of the sector. In PO3 no change is expected relative to 2040, while in PO4 some consolidation also takes place but to a lesser extent than in PO2.

Table 63: Assumptions on the additional service coverage in the policy options relative to 2025, by grouping

	Grouping	2028	2030	2040	2050
Baseline	Leader	0%	1%	5%	10%
Baseline	Planned adopter	0%	2%	11%	20%
Baseline	Follower	0%	2%	11%	20%
PO1	Leader	0%	5%	23%	23%
PO1	Planned adopter	0%	4%	20%	20%
PO1	Follower	0%	4%	20%	20%
PO2	Leader	0%	8%	80%	68%
PO2	Planned adopter	0%	10%	91%	78%
PO2	Follower	0%	10%	91%	78%
PO3	Leader	0%	7%	68%	68%
PO3	Planned adopter	0%	9%	78%	78%
PO3	Follower	0%	9%	78%	78%
PO4	Leader	0%	8%	74%	68%
PO4	Planned adopter	0%	10%	84%	78%
PO4	Follower	0%	10%	84%	78%

Source: Ricardo et al. (2026), Impact assessment support study

The analysis takes into consideration all different types of platforms and differences between Member States, grouping them into three categories: 'leaders[340]', 'planned adopters[341]', or 'followers[342]', based on the current number of MDMS platforms and the number of users of these platforms.

Table 64: Projected number of MDMS platforms across EU, by group, in the baseline and policy options

Grouping	2028	2030	2040	2050
Baseline				
Leaders	154	155	162	169
Planned adopters	157	160	174	188
Followers	53	54	59	64
Total	**364**	**369**	**395**	**421**
PO1				
Leaders	154	160	188	188
Planned adopters	157	163	188	188
Followers	53	56	64	64
Total	**364**	**379**	**440**	**440**
PO2				
Leaders	154	166	276	257
Planned adopters	157	173	300	279
Followers	53	59	101	94

[340] Germany, Austria, Denmark, Luxembourg, Finland, Spain, Netherlands
[341] France, Poland, Italy, Belgium, Portugal, Malta, Cyprus, Greece, Bulgaria, Estonia.
[342] Croatia, Lithuania, Hungary, Sweden, Czech Republic, Ireland, Slovenia, Latvia, Romania, Slovakia

Grouping	2028	2030	2040	2050
Total	**364**	**398**	**677**	**630**
PO3				
Leaders	154	165	257	257
Planned adopters	157	172	279	279
Followers	53	58	94	94
Total	**364**	**395**	**630**	**630**
PO4				
Leaders	154	166	266	257
Planned adopters	157	172	289	279
Followers	53	58	98	94
Total	**364**	**396**	**653**	**630**

Source: Ricardo et al. (2026), Impact assessment support study

3.1.2. Number of transport operators

The number of transport operators is assumed to remain unchanged relative to the baseline scenario and over time.

3.1.3. Number of agreements between MDMS platforms and transport operators

In PO1 the number of transport operators per MDMS platform is projected to be the same as in the baseline, as principles on distribution fees alone are not expected to lead to more agreements.

Progress in the form of an expansion of service coverage and service level is linked to the number of operators available on each platform:

- **PM13** (in PO2, PO3, PO4) introduces an **obligation to share** for indispensable RUs and PSO/cross-border operators. Willing platforms would therefore enter new agreements with any indispensable or PSO/cross-border RU. It is assumed that all **EU-wide platforms** would be willing to request integration with the 24 indispensable RUs and with non-SME operators who are either PSO or cross-border (117). This is because their platforms benefit from network effects. Similarly, **national/regional platforms** would be willing to request integration with the incumbent RU in the main Member State of operation and one of a neighbouring Member State (2), and with any local operators who are either PSO or cross-border (117/25 = 5), totalling an additional 7 operators per platform.

- **PM14** (in PO3) introduces an **obligation to host** for indispensable rail platforms (19 platforms). These platforms would therefore enter new agreements with willing RUs active within the geographical scope covered by the MDMS platform. It is assumed that the integration requests would come from any local operators who are not already obligated to share under PM13 ([158 rail operators – 24 indispensable rail operators – 117 PSO or cross-border] / 25 Member States with rail = 1 local operator).

- **PM15** (in PO4), introduces an **obligation to unbundle** for indispensable rail platforms. It is assumed that this will not oblige them to undertake new agreements.

The table below shows the assumptions on the number of operators per MDMS platform, which is higher in the policy options where obligations lead to additional agreements relative to the baseline. Total agreements are calculated by multiplying the number of relevant platforms by the number of operators engaged with each platform. These assumptions only apply to non-SME MDMS platforms as SMEs are exempted from obligations. However, the counterparties to these agreements (transport operators) are assumed to partly consist of SMEs, in line with the share of SMEs in total transport operators. These SMEs enter willingly into agreements and are assumed to bear no costs relative to the baseline, but benefit from cost savings from simplified contract negotiations (PM11 and PM12).

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Table 65: Assumed average number of operators per platform in the baseline and each policy option

	Average number of operators per platform		
	National/regional platforms (excl. SMEs)		EU-wide platforms
	Indispensable rail	Other B2C	
Baseline	28	28	189
PO1	28	28	189
PO2	35	35	330
PO3	36	35	330
PO4	35	35	330

Source: Ricardo et al. (2026), Impact assessment support study

The table below summarises the projected number of total, new and renegotiated agreements between MDMS platforms and transport operators in 2028, 2030, 2040 and 2050 in the baseline and in the policy options.

Table 66: Number of total, new and renegotiated agreements in 2028, 2030, 2040 and 2050 between MDMS platforms and transport operators in the baseline and in the policy options

	Agreement type	2028	2030	2040	2050
Baseline	Total	48,624	49,321	52,808	56,295
	New	0	349	349	349
	Renegotiated	16,208	16,440	17,603	18,765
PO1	Total	48,624	50,671	58,862	58,862
	New	0	1,024	614	0
	Renegotiated	16,208	16,890	19,621	19,621
PO2	Total	63,870	69,832	119,049	110,673
	New	15,247	2,981	4,922	0
	Renegotiated	21,290	23,277	39,683	36,891
PO3	Total	63,883	69,248	110,686	110,686
	New	15,260	2,998	4,144	0
	Renegotiated	21,294	23,083	36,895	36,895
PO4	Total	64,402	69,519	114,842	110,673
	New	15,779	2,982	4,532	0
	Renegotiated	21,467	23,173	38,281	36,891

Source: Ricardo et al. (2026), Impact assessment support study

3.2. Other common assumptions used to estimate the costs and costs savings of the policy measures

For monetising the labour costs, the hourly rates for the ISCO3 category (technicians and associate professionals) from the 'Eurostat Structure of earnings survey, Labour Force Survey data' have been used. They are expressed in 2024 prices using the Harmonised Index of Consumer Prices (HICP). The number of working hours per day assumed in the calculations is 7.2 hours[343], and the number of working days per year is 220.

For the staff employed by the European Commission the cost per FTE in 2024 prices was assumed at EUR 118,326 at AD5 level, including overheads.

[343] Actual and usual hours of work - Statistics Explained - Eurostat

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3.3. Detailed explanations of the calculations of costs and costs savings by policy measure and policy option

3.3.1. PM1 – Obligation for all MDMS platforms to apply neutral display obligations and for transport operators (in all modes) to ensure that the data they submit are accurate

In PM1, all non-SME MDMS platforms (non-SME B2B and B2C platforms) when displaying travel options will need, by default, to rank them based on one or more of the minimum criteria set in legislation (e.g. final price, travel time, greenhouse gas emissions). PM1 retains, updates and extends the neutral display obligations and the obligation to submit accurate data, set out in the CRS Code of Conduct which is part of the baseline. In the CRS Code of Conduct this measure is limited to CRS platforms, while PM1 extends it to all B2B and B2C MDMS, except for SMEs. In addition, new ranking criteria are added as minimum mandatory criteria and display rules allow for more flexibility compared to the current principal display. Transport operators will need to ensure the data they submit to MDMS providers are accurate, up to date and allow the MDMS platform to respect the neutral display rules.

The measure is expected to result in:

- Adjustment costs for non-SME MDMS platforms to reprogramme for neutral display, of which:
  - One-off adjustment costs for existing platforms in 2028 (i.e. year of implementation) and for new platforms that join the market each year from 2029 onwards
  - Recurrent adjustment costs for platforms to maintain the neutral display from 2029 onwards.

No significant costs are expected due to PM1 for transport operators for ensuring that the data they submit to MDMS providers is accurate.

One-off and recurrent adjustment costs for non-SME MDMS platforms

The stakeholders' consultation activities provided limited evidence on the *one-off adjustment costs* for non-SME MDMS platforms to comply with the neutral display obligations. The feedback received ranged between zero and several hundred thousand EUR. A conservative assumption has been used for estimating the costs for non-SME MDMS platforms (excluding CRS platforms), of 90 working days of a software engineer's time. This also takes into account the synergies with PM2 (equal care for data), PM3 (marketing and booking data sharing) and PM8 (GHG emission data). Based on the hourly rates presented in section 3.2 of Annex 4, the one-off cost per MDMS platform (excluding CRS platforms) is estimated at EUR 23,125. CRS platforms are expected to incur lower one-off effort[344], estimated at one third of that for other non-SME MDMS platforms (i.e. 30 working days), to adapt their software to PM1 new requirements. Thus, the one-off costs per CRS platform is estimated at EUR 7,708 considering the hourly rates presented in section 3.2 of Annex 4.

The total one-off adjustment costs in 2028 (i.e. the assumed year of implementation) are derived by multiplying the cost per MDMS platform with the number of non-SME MDMS platforms estimated to be active in 2028. Post-2028, the one-off adjustment costs are derived by multiplying the cost per MDMS platform with the number of new non-SME MDMS platforms joining the market each year. The number of non-SME MDMS platforms per policy option (split between CRS platforms and other non-SME MDMS platforms) and the associated one-off adjustment costs are shown in the table below for 2028, 2030, 2040 and 2050.

[344] CRS platforms are already subject to neutral display obligations in the baseline (Article 5 and 9 of the CRS Code of Conduct). Compared to Article 5 of the CRS Code of Conduct, new ranking criteria will be added as minimum mandatory criteria and display rules will allow for more flexibility compared to the current principal display.

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Recurrent adjustment costs for maintenance for non-SME MDMS platforms (excluding CRS platforms) are assumed to be 10% of the one-off costs, or EUR 2,312 annually per platform from 2029 onwards. Taking into account the number of non-SME MDMS platform (excluding CRS platforms) in each policy option, the total recurrent adjustment costs for 2028, 2030, 2040 and 2050 due to PM1 are provided in the table below. No recurrent costs are expected for CRS platforms as they already need to maintain the systems currently in place as part of the baseline.

Table 67: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C) due to PM1 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off cost per MDMS platform (excluding CRS) to programme for neutral display (EUR)	23,125	23,125	23,125	23,125
One-off cost per CRS platform to re-programme for neutral display (EUR)	7,708	7,708	7,708	7,708
Recurrent costs per MDMS platform, excluding CRS (EUR)	2,312	2,312	2,312	2,312
PO1				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM1	172	4	2	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM1	0	176	207	209
Number of CRS platforms that incur one-off costs due to PM1	3			
Total one-off adjustment costs (million EUR)	4.0	0.1	0.1	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.5	0.5
PO2				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM1	172	8	13	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM1	0	180	309	303
Number of CRS platforms that incur one-off costs due to PM1	3			
Total one-off adjustment costs (million EUR)	4.0	0.2	0.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.7	0.7
PO3				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM1	172	9	11	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM1	0	179	289	300
Number of CRS platforms that incur one-off costs due to PM1	3			
Total one-off adjustment costs (million EUR)	4.0	0.2	0.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.7	0.7
PO4				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM1	172	8	12	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM1	0	180	298	302
Number of CRS platforms that incur one-off costs due to PM1	3			
Total one-off adjustment costs (million EUR)	4.0	0.2	0.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.7	0.7

Source: Ricardo et al. (2026), Impact assessment support study

The table above covers total one-off and recurrent adjustment costs for both non-SME B2B and B2C platforms. As already explained, most B2B MDMS platforms operate EU-wide and it is not possible to provide the costs by Member State. Therefore, only the part of the total one-off and recurrent adjustment costs for the B2C platforms is provided by Member State in the tables below, by policy option[345].

[345] Costs for some Member States are zero because no large B2C platforms are projected to operate in these countries.

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Table 68: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM1 in PO1 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	411.0	50.5	54.3	49.6
Austria	308.3	37.9	40.8	37.2
Denmark	205.5	25.2	27.2	24.8
Luxembourg	137.0	16.8	18.1	16.5
Finland	171.3	21.0	22.6	20.7
Spain	137.0	16.8	18.1	16.5
Netherlands	342.5	42.1	45.3	41.3
France	445.3	54.7	58.9	53.8
Poland	239.8	29.5	31.7	28.9
Italy	205.5	25.2	27.2	24.8
Belgium	205.5	25.2	27.2	24.8
Portugal	68.5	8.4	9.1	8.3
Malta	34.3	4.2	4.5	4.1
Cyprus	34.3	4.2	4.5	4.1
Greece	68.5	8.4	9.1	8.3
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.3	4.2	4.5	4.1
Lithuania	0.0	0.0	0.0	0.0
Hungary	102.8	12.6	13.6	12.4
Sweden	68.5	8.4	9.1	8.3
Czechia	102.8	12.6	13.6	12.4
Ireland	68.5	8.4	9.1	8.3
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.3	4.2	4.5	4.1
Total	**3,425.2**	**420.8**	**452.9**	**413.5**

Source: Ricardo et al. (2026), Impact assessment support study

Table 69: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM1 in PO2 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	411.0	62.2	105.0	71.8
Austria	308.3	46.7	78.8	53.9
Denmark	205.5	31.1	52.5	35.9
Luxembourg	137.0	20.7	35.0	23.9
Finland	171.3	25.9	43.8	29.9
Spain	137.0	20.7	35.0	23.9
Netherlands	342.5	51.8	87.5	59.9
France	445.3	67.4	113.8	77.8
Poland	239.8	36.3	61.3	41.9
Italy	205.5	31.1	52.5	35.9
Belgium	205.5	31.1	52.5	35.9
Portugal	68.5	10.4	17.5	12.0
Malta	34.3	5.2	8.8	6.0
Cyprus	34.3	5.2	8.8	6.0
Greece	68.5	10.4	17.5	12.0
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.3	5.2	8.8	6.0
Lithuania	0.0	0.0	0.0	0.0
Hungary	102.8	15.6	26.3	18.0
Sweden	68.5	10.4	17.5	12.0
Czechia	102.8	15.6	26.3	18.0
Ireland	68.5	10.4	17.5	12.0

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	2028	2030	2040	2050
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.3	5.2	8.8	6.0
Total	**3,425.2**	**518.4**	**875.4**	**598.7**

Source: Ricardo et al. (2026), Impact assessment support study

Table 70: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM1 in PO3 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	411.0	63.2	95.4	71.3
Austria	308.3	47.4	71.5	53.5
Denmark	205.5	31.6	47.7	35.7
Luxembourg	137.0	21.1	31.8	23.8
Finland	171.3	26.3	39.7	29.7
Spain	137.0	21.1	31.8	23.8
Netherlands	342.5	52.6	79.5	59.4
France	445.3	68.4	103.3	77.3
Poland	239.8	36.8	55.6	41.6
Italy	205.5	31.6	47.7	35.7
Belgium	205.5	31.6	47.7	35.7
Portugal	68.5	10.5	15.9	11.9
Malta	34.3	5.3	7.9	5.9
Cyprus	34.3	5.3	7.9	5.9
Greece	68.5	10.5	15.9	11.9
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.3	5.3	7.9	5.9
Lithuania	0.0	0.0	0.0	0.0
Hungary	102.8	15.8	23.8	17.8
Sweden	68.5	10.5	15.9	11.9
Czechia	102.8	15.8	23.8	17.8
Ireland	68.5	10.5	15.9	11.9
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.3	5.3	7.9	5.9
Total	**3,425.2**	**526.3**	**794.8**	**594.4**

Source: Ricardo et al. (2026), Impact assessment support study

Table 71: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM1 in PO4 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	411.0	62.1	100.1	71.6
Austria	308.3	46.6	75.0	53.7
Denmark	205.5	31.1	50.0	35.8
Luxembourg	137.0	20.7	33.4	23.9
Finland	171.3	25.9	41.7	29.8
Spain	137.0	20.7	33.4	23.9
Netherlands	342.5	51.8	83.4	59.6
France	445.3	67.3	108.4	77.5
Poland	239.8	36.2	58.4	41.8
Italy	205.5	31.1	50.0	35.8
Belgium	205.5	31.1	50.0	35.8
Portugal	68.5	10.4	16.7	11.9
Malta	34.3	5.2	8.3	6.0
Cyprus	34.3	5.2	8.3	6.0
Greece	68.5	10.4	16.7	11.9

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	2028	2030	2040	2050
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.3	5.2	8.3	6.0
Lithuania	0.0	0.0	0.0	0.0
Hungary	102.8	15.5	25.0	17.9
Sweden	68.5	10.4	16.7	11.9
Czechia	102.8	15.5	25.0	17.9
Ireland	68.5	10.4	16.7	11.9
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.3	5.2	8.3	6.0
Total	**3,425.2**	**517.8**	**833.8**	**596.5**

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050 relative to the baseline, the total one-off and recurrent adjustment costs due to PM1 for non-SME B2B and B2C MDMS platforms are provided in the table below, by policy option.

Table 72: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C) due to PM1 in the policy options, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total adjustment costs	12.0	16.5	15.8	16.1
One-off adjustment costs	4.7	6.9	6.4	6.6
Recurrent adjustment costs	7.3	9.7	9.3	9.5

Source: Ricardo et al. (2026), Impact assessment support study

3.3.2. PM2 – Obligation for all MDMS platforms to load and process data of operators with equal care and timeliness

In PM2, non-SME MDMS platforms (non-SME B2B and B2C platforms) shall load and process data provided by transport operators, with equal care and timeliness. PM2 retains and extends to all non-SME MDMS platforms the obligation provided in the CRS Code of Conduct, which is part of the baseline, to ensure fair treatment of all transport operators participating to a platform.

The measure is expected to result in:

- Adjustment costs for non-SME MDMS platforms (excluding CRS platforms) to reprogramme for new requirements:
  - One-off adjustment costs are expected for existing non-SME MDMS platforms in 2028 (i.e. first year of implementation) and for new non-SME MDMS platforms that join the market each year from 2029 onwards.
  - Recurrent adjustment costs for non-SME MDMS platforms for maintenance from 2029 onwards.

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One-off and recurrent adjustment costs for non-SME MDMS platforms (excluding CRS platforms)

PM2 is expected to require less effort than PM1[346] because it primarily entails standardising back-end pipelines to ensure operators' data is loaded and processed with uniform care, timelines, and error-handling (eliminating preferential caching, fallbacks, or operator-specific prioritisation). This involves updates to logging, timeout harmonisation, and removal of custom prioritisation logic. Therefore, under a conservative approach, it is assumed that PM2 would require 75% of the workload of PM1 (i.e. 67.5 working days). This also accounts for synergies with PM1 (neutral display), PM3 (marketing and booking data sharing) and PM8 (GHG emission data). For example, fixing data flows evenly also supports sharing data with partners, saving time on data handling and checks. The one-off cost per MDMS platform is estimated at EUR 17,343 considering the hourly rates presented in section 3.2 of Annex 4.

The total one-off adjustment costs in 2028 (i.e. the assumed year of implementation) are derived by multiplying the cost per MDMS platform with the number of non-SME MDMS platforms (excluding CRS platforms which already implement these requirements in the baseline) estimated to be active in 2028. Post-2028, the one-off adjustment costs are derived by multiplying the cost per MDMS platform with the number of new non-SME MDMS platforms joining the market each year. The number of non-SME MDMS platforms per policy option and the associated one-off adjustment costs are shown in the table below for 2028, 2030, 2040 and 2050.

Recurrent adjustment costs for the maintenance of the system are estimated at 10% of the one-off costs (i.e. EUR 1,734 per MDMS platform). They are applied to the number of non-SME MDMS platforms on the market from 2029 onwards (excluding CRS platforms which already implement these requirements in the baseline). The total recurrent adjustment costs due to PM2 for 2028, 2030, 2040 and 2050 are shown in the table below.

Table 73: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C, excluding CRS platforms) due to PM2 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off cost per MDMS platform (excluding CRS) to reprogramme for new requirements (EUR)	17,343	17,343	17,343	17,343
Recurrent costs per MDMS platform (EUR)	0	1,734	1,734	1,734
PO1				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM2	172	4	2	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM2	0	179	210	212
Total one-off adjustment costs (million EUR)	3.0	0.1	0.0	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.3	0.4	0.4
PO2				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM2	172	8	13	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM2	0	183	312	306
Total one-off adjustment costs (million EUR)	3.0	0.1	0.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.3	0.5	0.5
PO3				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM2	172	9	11	0

[346] By comparison, PM1 requires a comprehensive overhaul of ranking and display functions, including revisions to ranking algorithms, potential front-end redesign, and enhanced data validation or restructuring. Development of ranking algorithms, UI/UX components (User interface and User experience), and data-processing pipelines generally entails greater complexity than back-end standardisation.

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	2028	2030	2040	2050
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM2	0	182	292	303
Total one-off adjustment costs (million EUR)	3.0	0.2	0.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.3	0.5	0.5
PO4				
Number of non-SME MDMS platforms (excluding CRSs) that incur one-off costs due to PM2	172	8	12	0
Number of non-SME MDMS platforms (excluding CRSs) that incur recurrent costs due to PM2	0	183	301	305
Total one-off adjustment costs (million EUR)	3.0	0.1	0.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.3	0.5	0.5

Source: Ricardo et al. (2026), Impact assessment support study

The table above covers total one-off and recurrent adjustment costs for both non-SME B2B and B2C platforms (excluding CRS platforms). As already explained, most B2B MDMS platforms operate EU-wide and it is not possible to provide the costs by Member State. Therefore, only the part of the total one-off and recurrent adjustment costs for the B2C platforms is provided by Member State in the tables below, by policy option[347].

Table 74: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM2 in PO1 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	306.5	38.4	41.3	37.7
Austria	229.9	28.8	31.0	28.3
Denmark	153.2	19.2	20.6	18.9
Luxembourg	102.2	12.8	13.8	12.6
Finland	127.7	16.0	17.2	15.7
Spain	102.2	12.8	13.8	12.6
Netherlands	255.4	32.0	34.4	31.5
France	332.0	41.6	44.7	40.9
Poland	178.8	22.4	24.1	22.0
Italy	153.2	19.2	20.6	18.9
Belgium	153.2	19.2	20.6	18.9
Portugal	51.1	6.4	6.9	6.3
Malta	25.5	3.2	3.4	3.1
Cyprus	25.5	3.2	3.4	3.1
Greece	51.1	6.4	6.9	6.3
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	25.5	3.2	3.4	3.1
Lithuania	0.0	0.0	0.0	0.0
Hungary	76.6	9.6	10.3	9.4
Sweden	51.1	6.4	6.9	6.3
Czechia	76.6	9.6	10.3	9.4
Ireland	51.1	6.4	6.9	6.3
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	25.5	3.2	3.4	3.1
Total	**2,554.1**	**320.0**	**344.1**	**314.6**

Source: Ricardo et al. (2026), Impact assessment support study

Table 75: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM2 in PO2 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	306.5	47.2	79.3	54.4

[347] Costs for some Member States are zero because no large B2C platforms are projected to operate in these countries.

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	2028	2030	2040	2050
Austria	229.9	35.4	59.5	40.8
Denmark	153.2	23.6	39.7	27.2
Luxembourg	102.2	15.7	26.4	18.1
Finland	127.7	19.7	33.0	22.7
Spain	102.2	15.7	26.4	18.1
Netherlands	255.4	39.3	66.1	45.3
France	332.0	51.1	85.9	59.0
Poland	178.8	27.5	46.3	31.7
Italy	153.2	23.6	39.7	27.2
Belgium	153.2	23.6	39.7	27.2
Portugal	51.1	7.9	13.2	9.1
Malta	25.5	3.9	6.6	4.5
Cyprus	25.5	3.9	6.6	4.5
Greece	51.1	7.9	13.2	9.1
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	25.5	3.9	6.6	4.5
Lithuania	0.0	0.0	0.0	0.0
Hungary	76.6	11.8	19.8	13.6
Sweden	51.1	7.9	13.2	9.1
Czechia	76.6	11.8	19.8	13.6
Ireland	51.1	7.9	13.2	9.1
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	25.5	3.9	6.6	4.5
Total	**2,554.1**	**393.2**	**661.0**	**453.5**

Source: Ricardo et al. (2026), Impact assessment support study

Table 76: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM2 in PO3 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	306.5	47.9	72.1	54.0
Austria	229.9	35.9	54.1	40.5
Denmark	153.2	24.0	36.0	27.0
Luxembourg	102.2	16.0	24.0	18.0
Finland	127.7	20.0	30.0	22.5
Spain	102.2	16.0	24.0	18.0
Netherlands	255.4	39.9	60.1	45.0
France	332.0	51.9	78.1	58.5
Poland	178.8	27.9	42.0	31.5
Italy	153.2	24.0	36.0	27.0
Belgium	153.2	24.0	36.0	27.0
Portugal	51.1	8.0	12.0	9.0
Malta	25.5	4.0	6.0	4.5
Cyprus	25.5	4.0	6.0	4.5
Greece	51.1	8.0	12.0	9.0
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	25.5	4.0	6.0	4.5
Lithuania	0.0	0.0	0.0	0.0
Hungary	76.6	12.0	18.0	13.5
Sweden	51.1	8.0	12.0	9.0
Czechia	76.6	12.0	18.0	13.5
Ireland	51.1	8.0	12.0	9.0
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0

	2028	2030	2040	2050
Slovakia	25.5	4.0	6.0	4.5
Total	**2,554.1**	**399.2**	**600.6**	**450.3**

Source: Ricardo et al. (2026), Impact assessment support study

Table 77: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM2 in PO4 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	306.5	47.1	75.6	54.2
Austria	229.9	35.4	56.7	40.7
Denmark	153.2	23.6	37.8	27.1
Luxembourg	102.2	15.7	25.2	18.1
Finland	127.7	19.6	31.5	22.6
Spain	102.2	15.7	25.2	18.1
Netherlands	255.4	39.3	63.0	45.2
France	332.0	51.1	81.9	58.7
Poland	178.8	27.5	44.1	31.6
Italy	153.2	23.6	37.8	27.1
Belgium	153.2	23.6	37.8	27.1
Portugal	51.1	7.9	12.6	9.0
Malta	25.5	3.9	6.3	4.5
Cyprus	25.5	3.9	6.3	4.5
Greece	51.1	7.9	12.6	9.0
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	25.5	3.9	6.3	4.5
Lithuania	0.0	0.0	0.0	0.0
Hungary	76.6	11.8	18.9	13.6
Sweden	51.1	7.9	12.6	9.0
Czechia	76.6	11.8	18.9	13.6
Ireland	51.1	7.9	12.6	9.0
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	25.5	3.9	6.3	4.5
Total	**2,554.1**	**392.8**	**629.8**	**451.8**

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050 relative to the baseline, the total one-off and recurrent adjustment costs due to PM2 for non-SME B2B and B2C MDMS platforms (excluding CRS platforms) are provided in the table below, by policy option.

Table 78: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C, excluding CRS platforms) due to PM2 in the policy options, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total adjustment costs	9.0	12.4	11.8	12.1
One-off adjustment costs	3.5	5.1	4.8	5.0
Recurrent adjustment costs	5.4	7.3	7.0	7.1

Source: Ricardo et al. (2026), Impact assessment support study

3.3.3. PM3 – Obligation for all MDMS platforms to share marketing and booking data in a fair way, when requested by transport operators and authorities

In PM3, marketing, booking and sales data will need to be made available by MDMS platforms, when there is such request by transport operators, provided that such data are offered with equal timeliness and on a non-

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discriminatory basis to all transport operators displayed on that platform. PM3 retains and extends to all MDMS platforms, the obligation provided by CRS Code of Conduct (which is part of the baseline) to prevent CRSs and other MDMS from using marketing and booking data to increase their bargaining power against carriers and travel agents.

The measure is expected to result in:

- Adjustment costs for non-SME MDMS platforms (excluding CRS platforms and NCAs) to reprogramme for marketing and booking data requirements:
  - One-off adjustment costs are expected for existing non-SME MDMS platforms in 2028 (i.e. first year of implementation) and for new non-SME MDMS platforms that join the market each year from 2029 onwards.
  - Recurrent adjustment costs for non-SME MDMS platforms for maintenance from 2029 onwards.

One-off and recurrent adjustment costs for non-SME MDMS platforms (excluding CRS platforms and NCAs)

The one-off implementation effort for PM3 is expected to be similar to that of PM2 (67.5 working days). As PM2, PM3 affects only backend data-handling and governance processes, without requiring the extensive reprogramming of ranking logic, display behaviour or user-interface components that drive a higher workload in PM1. Although PM3 concerns a different data domain, the technical scope remains comparably narrower and predominantly limited to adjustments of the automated data flows that already exist, access controls and audit mechanisms. The estimated effort for PM3 also takes into account the synergies with PM1, PM2 and PM8. The one-off cost per non-SME MDMS platform is estimated at EUR 17,343 considering the hourly rates presented in section 3.2 of Annex 4.

The total one-off adjustment costs in 2028 (i.e. the assumed year of implementation) are derived by multiplying the cost per MDMS platform with the number of non-SME MDMS platforms (excluding CRS platforms and NCAs, which already implement these requirements in the baseline) estimated to be active in 2028. Post-2028, the one-off adjustment costs are derived by multiplying the cost per MDMS platform with the number of new non-SME MDMS platforms joining the market each year. The number of non-SME MDMS platforms per policy option and the associated one-off adjustment costs are shown in the table below for 2028, 2030, 2040 and 2050.

Recurrent adjustment costs for the maintenance of the system are estimated at 10% of the one-off costs (i.e. EUR 1,734 per MDMS platform). They are applied to the number of non-SME MDMS platforms on the market from 2029 onwards (excluding CRS platforms and NCAs, which already implement these requirements in the baseline). The total recurrent adjustment costs due to PM3 for 2028, 2030, 2040 and 2050 are shown in the table below.

Table 79: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C, excluding CRS platforms and NCAs) due to PM3 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off cost per MDMS platform (excluding CRS and NCA) to reprogramme for new requirements (EUR)	17,343	17,343	17,343	17,343
Recurrent costs per MDMS platform (EUR)	0	1,734	1,734	1,734
PO1				
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur one-off costs due to PM3	133	3	2	0
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur recurrent costs due to PM3	0	136	159	161
Total one-off adjustment costs (million EUR)	2.3	0.0	0.0	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.2	0.3	0.3
PO2				

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	2028	2030	2040	2050
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur one-off costs due to PM3	133	6	10	0
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur recurrent costs due to PM3	0	139	236	232
Total one-off adjustment costs (million EUR)	2.3	0.1	0.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.2	0.4	0.4
PO3				
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur one-off costs due to PM3	133	7	9	0
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur recurrent costs due to PM3	0	138	222	230
Total one-off adjustment costs (million EUR)	2.3	0.1	0.1	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.2	0.4	0.4
PO4				
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur one-off costs due to PM3	133	6	9	0
Number of non-SME MDMS platforms (excluding CRSs and NCAs) that incur recurrent costs due to PM3	0	138	229	231
Total one-off adjustment costs (million EUR)	2.3	0.1	0.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.2	0.4	0.4

Source: Ricardo et al. (2026), Impact assessment support study

The table above covers total one-off and recurrent adjustment costs for both non-SME B2B and B2C platforms (excluding CRS platforms and NCAs). As already explained, most B2B MDMS platforms operate EU-wide and it is not possible to provide the costs by Member State. Therefore, only the part of the total one-off and recurrent adjustment costs for the B2C platforms is provided by Member State in the tables below, by policy option[348].

Table 80: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM3 in PO1 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	236.5	29.1	31.3	28.6
Austria	177.4	21.8	23.5	21.5
Denmark	118.3	14.6	15.7	14.3
Luxembourg	78.8	9.7	10.4	9.5
Finland	98.5	12.1	13.1	11.9
Spain	78.8	9.7	10.4	9.5
Netherlands	197.1	24.3	26.1	23.9
France	256.2	31.6	33.9	31.0
Poland	138.0	17.0	18.3	16.7
Italy	118.3	14.6	15.7	14.3
Belgium	118.3	14.6	15.7	14.3
Portugal	39.4	4.9	5.2	4.8
Malta	19.7	2.4	2.6	2.4
Cyprus	19.7	2.4	2.6	2.4
Greece	39.4	4.9	5.2	4.8
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	19.7	2.4	2.6	2.4
Lithuania	0.0	0.0	0.0	0.0
Hungary	59.1	7.3	7.8	7.2
Sweden	39.4	4.9	5.2	4.8
Czechia	59.1	7.3	7.8	7.2
Ireland	39.4	4.9	5.2	4.8
Slovenia	0.0	0.0	0.0	0.0

[348] Costs for some Member States are zero because no large B2C platforms are projected to operate in these countries.

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	2028	2030	2040	2050
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	19.7	2.4	2.6	2.4
Total	**1,970.9**	**242.7**	**261.0**	**238.6**

Source: Ricardo et al. (2026), Impact assessment support study

Table 81: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM3 in PO2 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	236.5	35.8	60.2	41.3
Austria	177.4	26.8	45.1	31.0
Denmark	118.3	17.9	30.1	20.6
Luxembourg	78.8	11.9	20.1	13.8
Finland	98.5	14.9	25.1	17.2
Spain	78.8	11.9	20.1	13.8
Netherlands	197.1	29.8	50.1	34.4
France	256.2	38.8	65.2	44.7
Poland	138.0	20.9	35.1	24.1
Italy	118.3	17.9	30.1	20.6
Belgium	118.3	17.9	30.1	20.6
Portugal	39.4	6.0	10.0	6.9
Malta	19.7	3.0	5.0	3.4
Cyprus	19.7	3.0	5.0	3.4
Greece	39.4	6.0	10.0	6.9
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	19.7	3.0	5.0	3.4
Lithuania	0.0	0.0	0.0	0.0
Hungary	59.1	8.9	15.0	10.3
Sweden	39.4	6.0	10.0	6.9
Czechia	59.1	8.9	15.0	10.3
Ireland	39.4	6.0	10.0	6.9
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	19.7	3.0	5.0	3.4
Total	**1,970.9**	**298.3**	**501.3**	**344.0**

Source: Ricardo et al. (2026), Impact assessment support study

Table 82: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM3 in PO3 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	236.5	36.3	54.7	41.0
Austria	177.4	27.2	41.0	30.7
Denmark	118.3	18.2	27.3	20.5
Luxembourg	78.8	12.1	18.2	13.7
Finland	98.5	15.1	22.8	17.1
Spain	78.8	12.1	18.2	13.7
Netherlands	197.1	30.3	45.6	34.2
France	256.2	39.4	59.2	44.4
Poland	138.0	21.2	31.9	23.9
Italy	118.3	18.2	27.3	20.5
Belgium	118.3	18.2	27.3	20.5
Portugal	39.4	6.1	9.1	6.8
Malta	19.7	3.0	4.6	3.4
Cyprus	19.7	3.0	4.6	3.4
Greece	39.4	6.1	9.1	6.8
Bulgaria	0.0	0.0	0.0	0.0

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	2028	2030	2040	2050
Estonia	0.0	0.0	0.0	0.0
Croatia	19.7	3.0	4.6	3.4
Lithuania	0.0	0.0	0.0	0.0
Hungary	59.1	9.1	13.7	10.2
Sweden	39.4	6.1	9.1	6.8
Czechia	59.1	9.1	13.7	10.2
Ireland	39.4	6.1	9.1	6.8
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	19.7	3.0	4.6	3.4
Total	**1,970.9**	**302.8**	**455.5**	**341.5**

Source: Ricardo et al. (2026), Impact assessment support study

Table 83: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM3 in PO4 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	236.5	35.8	57.3	41.1
Austria	177.4	26.8	43.0	30.8
Denmark	118.3	17.9	28.7	20.6
Luxembourg	78.8	11.9	19.1	13.7
Finland	98.5	14.9	23.9	17.1
Spain	78.8	11.9	19.1	13.7
Netherlands	197.1	29.8	47.8	34.3
France	256.2	38.7	62.1	44.5
Poland	138.0	20.9	33.4	24.0
Italy	118.3	17.9	28.7	20.6
Belgium	118.3	17.9	28.7	20.6
Portugal	39.4	6.0	9.6	6.9
Malta	19.7	3.0	4.8	3.4
Cyprus	19.7	3.0	4.8	3.4
Greece	39.4	6.0	9.6	6.9
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	19.7	3.0	4.8	3.4
Lithuania	0.0	0.0	0.0	0.0
Hungary	59.1	8.9	14.3	10.3
Sweden	39.4	6.0	9.6	6.9
Czechia	59.1	8.9	14.3	10.3
Ireland	39.4	6.0	9.6	6.9
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	19.7	3.0	4.8	3.4
Total	**1,970.9**	**297.9**	**477.7**	**342.7**

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050 relative to the baseline, the total one-off and recurrent adjustment costs due to PM3 for non-SME B2B and B2C MDMS platforms (excluding CRS platforms and NCAs) are provided in the table below, by policy option.

Table 84: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C, excluding CRS platforms and NCAs) due to PM3 in the policy options, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total adjustment costs	6.9	9.5	9.1	9.3

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	Difference to baseline			
	PO1	PO2	PO3	PO4
One-off adjustment costs	2.7	3.9	3.7	3.8
Recurrent adjustment costs	4.2	5.6	5.4	5.5

Source: Ricardo et al. (2026), Impact assessment support study

3.3.4. PM4 – Obligation for all B2B MDMS platforms to treat subscribers fairly and clearly identify in their display banned airlines. Obligation for third countries B2B MDMS to ensure equal treatment of EU air carriers

In PM4, all B2B MDMS platforms will need to fairly treat subscribers and not impose unfair and unjustified conditions to travel agents in their commercial relationships with them. All B2B MDMS platforms shall comply with the obligations to bring air carriers subject to an operating ban to the attention of passengers. Third countries B2B MDMS will need to equally treat EU air carriers and third country air carriers. PM3 retains and extends to all B2B MDMS platforms the rule on fair treatment of subscribers provided for by the CRS Code of Conduct which is part of the baseline.

Extending the fair treatment rule to all B2B MDMS platforms involves removing unfair contractual clauses and practices but does not require major platform engineering changes. Extending the CRS Code of Conduct to all B2B MDMS platforms would result in negligible one-off adjustment costs and negligible recurrent IT expenditures. Stakeholders reported that no significant contractual revisions are needed, neither IT system changes nor additional administrative burden for public authorities. Ensuring equivalent treatment of EU airlines on third countries B2B MDMS is also expected to generate negligible costs for platforms outside the EU, if any. Any potential revenue loss arising from increased competition would result in market redistribution among MDMS platforms rather than a net cost for MDMS platforms group. On this basis, no costs are estimated by PM4.

3.3.5. PM5 – Remove provisions from CRS Code of Conduct on data protection which are no longer necessary due to GDPR

In PM5, the provisions from the CRS Code of Conduct on data protection will be repealed as they are not relevant and fit for purpose anymore, given market, regulatory and technological changes. Notably, the entry into force of GDPR already provides the necessary framework to ensure data protection on ticketing platforms.

No costs or costs savings are expected due to PM5 as MDMS platforms and operators will continue to apply the GDPR rules.

3.3.6. PM6 – Obligation for Member States to appoint a national authority to settle disputes between parties, and establish an EU enforcement network for coordination

According to PM6, each Member State shall appoint one national enforcement body (NEB), responsible for disputes related to neutral display or rules on contractual agreements. Member States already have competent authorities responsible for resolving disputes in relevant areas, such as competition authorities, transport regulatory authorities, and rail regulators. In addition, the EU Data Act requires Member States to ensure that a competent authority or appropriate mechanism is in place to address disputes and oversee compliance with FRAND (Fair, Reasonable, and Non-Discriminatory) conditions, particularly in relation to data access and sharing. It is therefore assumed that Member States will not need to establish new bodies. At most, existing authorities may need to expand their operational capacity. This could involve recruiting additional staff, legal and competition specialists to handle potential increases in disputes and ensure regulatory compliance. The enforcement and monitoring of compliance with the new rules will also be handled by NEBs. The Commission will establish an enforcement network to ensure consistent enforcement in the EU and monitor the market.

The measure is expected to result in:

- Recurrent administrative costs for national authorities to settle disputes;
- Recurrent enforcement costs for national authorities to monitor the correct implementation of new rules and monitor the market for entities with SMP;
- Recurrent adjustment costs for the European Commissions for organising meetings of the EU-wide enforcement network, to exchange best practices, and for monitoring the market.

Recurrent administrative costs for national authorities to settle disputes

Member States already have competent authorities responsible for resolving disputes in relevant areas, such as competition authorities, transport regulatory authorities, and rail regulators. In addition, the EU Data Act requires Member States to ensure that a competent authority or appropriate mechanism is in place to address disputes and oversee compliance with FRAND (Fair, Reasonable, and Non-Discriminatory) conditions, particularly in relation to data access and sharing. It is therefore assumed that Member States will not need to establish new bodies. At most, existing authorities may need to expand their operational capacity. This could involve recruiting additional staff, legal and competition specialists to handle potential increases in disputes and report on disputes and coordinate in the context of the EU enforcement network.

According to PM6, this will be carried out by 27 national authorities. One FTE is assumed to be needed per national authority. Considering the hourly rates presented in section 3.2 of Annex 4, the recurrent administrative costs per national authority is estimated at EUR 56,527. At EU level, this corresponds to total recurrent administrative costs of EUR 1.53 million per year from 2028 onwards. Expressed as present value over 2028-2050, relative to the baseline, they are estimated at EUR 25.8 million.

Table 85: Recurrent administrative costs for national authorities due to PM6 in all policy options in 2028, 2030, 2040 and 2050 relative to the baseline (2024 prices)

	2028	2030	2040	2050
Administrative cost per national authority (EUR)	56,527	56,527	56,527	56,527
All policy options				
Recurrent administrative costs at EU level (million EUR)	1.53	1.53	1.53	1.53

Source: Ricardo et al. (2026), Impact assessment support study

Table 86: Administrative costs for national authorities due to PM6 in all policy options relative to the baseline, expressed as present value over 2028-2050 (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total administrative costs	25.8	25.8	25.8	25.8
One-off administrative costs	0	0	0	0
Recurrent administrative costs	25.8	25.8	25.8	25.8

Source: Ricardo et al. (2026), Impact assessment support study

Recurrent enforcement costs for national authorities

Based on stakeholder feedback the new rules will require labour effort for monitoring the enforcement of the obligations and monitor the market for entities with SMP. Maximum 4 FTEs were estimated to be needed by Member State, noting that costs are difficult to separate by individual policy measure. Taking into account the hourly rates presented in section 3.2 of Annex 4, the recurrent enforcement costs by Member State are estimated at EUR 226,106, or EUR 6.1 million at EU level from 2028 onwards in all policy options. Expressed as present value over 2028-2050 relative to the baseline, they are estimated at EUR 106.5 million in all policy options.

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Table 87: Recurrent enforcement costs for national authorities due to PM6 in all policy options in 2028, 2030, 2040 and 2050 relative to the baseline (2024 prices)

	2028	2030	2040	2050
Cost for monitoring enforcement per Member State (EUR)	226,106	226,106	226,106	226,106
All policy options				
Total recurrent enforcement costs at EU level (million EUR)	6.1	6.1	6.1	6.1

Source: Ricardo et al. (2026), Impact assessment support study

Table 88: Recurrent enforcement costs for national authorities due to PM6 in all policy options relative to the baseline, expressed as present value over 2028-2050 (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total enforcement costs	106.5	106.5	106.5	106.5
One-off enforcement costs	0	0	0	0
Recurrent enforcement costs	106.5	106.5	106.5	106.5

Source: Ricardo et al. (2026), Impact assessment support study

Recurrent adjustment costs for the European Commission

The European Commission (EC) is assumed to organise one meeting of the EU-wide enforcement network per year from 2028 onwards, to exchange best practices. The average cost for a two-day in-person meeting hosted by EC, where participants are reimbursed by the EC, is around EUR 30,000. Thus, the recurrent adjustment costs for the European Commission are estimated at EUR 30,000 per year from 2028 onwards. In addition, each two years from 2030 onwards, a Eurobarometer survey is assumed to be conducted. The costs for the Eurobarometer survey, are assumed at EUR 100,000 per year based on the costs of the Eurobarometer survey conducted in 2024. Expressed as present value over 2028-2050 relative to the baseline, total recurrent adjustment costs for the European Commissions are estimated at EUR 1.3 million in all policy options.

3.3.7. PM7 – Obligation for all B2C MDMS platforms to share data for mobility management

In PM7, upon request of a public transport authority, MDMS platforms would need to provide data relevant for improving the effectiveness of public transport policies on the territories which fall under the responsibility of the public transport authority. The data needs to be aggregated and anonymised.

The measure is expected to result in:

- Adjustment costs for non-SME B2C platforms to set up and maintain data sharing interfaces (API) with public authorities, of which:
  - One-off adjustment costs for the set-up of the API;
  - Recurrent adjustment costs corresponding to the maintenance of the API.

One-off and recurrent adjustment costs for non-SME B2C platforms

To enable the sharing of data critical for mobility management with public authorities, non-SME B2C platforms are expected to incur one-off costs for setting up and maintaining an API with the relevant national authority. Drawing on stakeholder feedback, the one-off adjustment costs borne by a non-SME B2C platform for setting up an API is estimated at EUR 117,719 in 2024 prices[349]. The one-off cost is multiplied with the number of non-SME B2C MDMS platforms projected to be active in 2028 (i.e. the implementation year) and with the number of new non-SME B2C platforms joining the market from 2029 onwards to derive the total one-off adjustment costs.

[349] The estimate was derived by calculating the average of the values submitted by stakeholders, after removing two extreme outliers, one unusually low and one unusually high.

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The maintenance of the API is estimated at 10% of the initial setup cost (i.e. EUR 11,772) and is applied from 2029 onwards. This concerns the platforms that are operational each year and have already incurred the one-off setup cost.

The number of non-SME B2C MDMS platforms subject to PM7 and the one-off and recurrent adjustment costs for 2028, 2030, 2040 and 2050 for each policy option relative to the baseline are provided in the table below.

Table 89: One-off and recurrent adjustment costs for non-SME B2C platforms due to PM7 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off cost per B2C platform for setting up the API (EUR)	117,719	117,719	117,719	117,719
Recurrent cost per B2C platform for maintaining the API (EUR)	11,772	11,772	11,772	11,772
PO1				
Number of non-SME B2C MDMS platforms that incur one-off costs due to PM7	150	3	2	0
Number of non-SME B2C MDMS platforms that incur recurrent costs due to PM7	0	153	179	181
Total one-off adjustment costs (million EUR)	17.6	0.4	0.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	1.8	2.1	2.1
PO2				
Number of non-SME B2C MDMS platforms that incur one-off costs due to PM7	150	7	11	0
Number of non-SME B2C MDMS platforms that incur recurrent costs due to PM7	0	157	267	261
Total one-off adjustment costs (million EUR)	17.6	0.8	1.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	1.8	3.1	3.1
PO3				
Number of non-SME B2C MDMS platforms that incur one-off costs due to PM7	150	7	10	0
Number of non-SME B2C MDMS platforms that incur recurrent costs due to PM7	0	156	250	260
Total one-off adjustment costs (million EUR)	17.6	0.9	1.1	0.0
Total recurrent adjustment costs (million EUR)	0.0	1.8	2.9	3.1
PO4				
Number of non-SME B2C MDMS platforms that incur one-off costs due to PM7	150	7	11	0
Number of non-SME B2C MDMS platforms that incur recurrent costs due to PM7	0	156	258	260
Total one-off adjustment costs (million EUR)	17.6	0.8	1.2	0.0
Total recurrent adjustment costs (million EUR)	0.0	1.8	3.0	3.1

Source: Ricardo et al. (2026), Impact assessment support study

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The tables below present the total one-off and recurrent adjustment costs for non-SME B2C platforms by Member State for 2028, 2030, 2040 and 2050, by policy option[350].

Table 90: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM7 in PO1 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	2,116.5	260.7	280.3	256.2
Austria	1,587.4	195.5	210.2	192.2
Denmark	1,058.3	130.3	140.1	128.1
Luxembourg	705.5	86.9	93.4	85.4
Finland	881.9	108.6	116.8	106.8
Spain	705.5	86.9	93.4	85.4
Netherlands	1,763.8	217.2	233.6	213.5
France	2,292.9	282.4	303.6	277.6
Poland	1,234.7	152.1	163.5	149.5
Italy	1,058.3	130.3	140.1	128.1
Belgium	1,058.3	130.3	140.1	128.1
Portugal	352.8	43.4	46.7	42.7
Malta	176.4	21.7	23.4	21.4
Cyprus	176.4	21.7	23.4	21.4
Greece	352.8	43.4	46.7	42.7
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	176.4	21.7	23.4	21.4
Lithuania	0.0	0.0	0.0	0.0
Hungary	529.1	65.2	70.1	64.1
Sweden	352.8	43.4	46.7	42.7
Czechia	529.1	65.2	70.1	64.1
Ireland	352.8	43.4	46.7	42.7
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	176.4	21.7	23.4	21.4
Total	**17,637.9**	**2,172.3**	**2,335.7**	**2,135.2**

Source: Ricardo et al. (2026), Impact assessment support study

Table 91: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM7 in PO2 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	2,116.5	320.3	537.8	369.3
Austria	1,587.4	240.2	403.4	277.0
Denmark	1,058.3	160.2	268.9	184.7
Luxembourg	705.5	106.8	179.3	123.1
Finland	881.9	133.5	224.1	153.9
Spain	705.5	106.8	179.3	123.1
Netherlands	1,763.8	266.9	448.2	307.8
France	2,292.9	347.0	582.6	400.1
Poland	1,234.7	186.8	313.7	215.4
Italy	1,058.3	160.2	268.9	184.7
Belgium	1,058.3	160.2	268.9	184.7
Portugal	352.8	53.4	89.6	61.6
Malta	176.4	26.7	44.8	30.8
Cyprus	176.4	26.7	44.8	30.8
Greece	352.8	53.4	89.6	61.6
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0

[350] Costs for some Member States are zero because no large B2C platforms are projected to operate in these countries.

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	2028	2030	2040	2050
Croatia	176.4	26.7	44.8	30.8
Lithuania	0.0	0.0	0.0	0.0
Hungary	529.1	80.1	134.5	92.3
Sweden	352.8	53.4	89.6	61.6
Czechia	529.1	80.1	134.5	92.3
Ireland	352.8	53.4	89.6	61.6
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	176.4	26.7	44.8	30.8
Total	**17,637.9**	**2,669.2**	**4,481.8**	**3,077.9**

Source: Ricardo et al. (2026), Impact assessment support study

Table 92: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM7 in PO3 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	2,116.5	326.3	488.9	366.8
Austria	1,587.4	244.7	366.7	275.1
Denmark	1,058.3	163.2	244.5	183.4
Luxembourg	705.5	108.8	163.0	122.3
Finland	881.9	136.0	203.7	152.8
Spain	705.5	108.8	163.0	122.3
Netherlands	1,763.8	271.9	407.4	305.6
France	2,292.9	353.5	529.7	397.3
Poland	1,234.7	190.3	285.2	213.9
Italy	1,058.3	163.2	244.5	183.4
Belgium	1,058.3	163.2	244.5	183.4
Portugal	352.8	54.4	81.5	61.1
Malta	176.4	27.2	40.7	30.6
Cyprus	176.4	27.2	40.7	30.6
Greece	352.8	54.4	81.5	61.1
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	176.4	27.2	40.7	30.6
Lithuania	0.0	0.0	0.0	0.0
Hungary	529.1	81.6	122.2	91.7
Sweden	352.8	54.4	81.5	61.1
Czechia	529.1	81.6	122.2	91.7
Ireland	352.8	54.4	81.5	61.1
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	176.4	27.2	40.7	30.6
Total	**17,637.9**	**2,719.3**	**4,074.5**	**3,056.3**

Source: Ricardo et al. (2026), Impact assessment support study

Table 93: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM7 in PO4 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	2,116.5	320.1	512.4	368.0
Austria	1,587.4	240.1	384.3	276.0
Denmark	1,058.3	160.0	256.2	184.0
Luxembourg	705.5	106.7	170.8	122.7
Finland	881.9	133.4	213.5	153.3
Spain	705.5	106.7	170.8	122.7
Netherlands	1,763.8	266.7	427.0	306.6
France	2,292.9	346.8	555.1	398.6
Poland	1,234.7	186.7	298.9	214.6

	2028	2030	2040	2050
Italy	1,058.3	160.0	256.2	184.0
Belgium	1,058.3	160.0	256.2	184.0
Portugal	352.8	53.3	85.4	61.3
Malta	176.4	26.7	42.7	30.7
Cyprus	176.4	26.7	42.7	30.7
Greece	352.8	53.3	85.4	61.3
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	176.4	26.7	42.7	30.7
Lithuania	0.0	0.0	0.0	0.0
Hungary	529.1	80.0	128.1	92.0
Sweden	352.8	53.3	85.4	61.3
Czechia	529.1	80.0	128.1	92.0
Ireland	352.8	53.3	85.4	61.3
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	176.4	26.7	42.7	30.7
Total	**17,637.9**	**2,667.3**	**4,270.3**	**3,066.4**

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050 relative to the baseline, the total one-off and recurrent adjustment costs due to PM7 for non-SME B2C MDMS platforms are provided in the table below, by policy option.

Table 94: One-off and recurrent adjustment costs for non-SME B2C platforms due to PM7 in the policy options, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total adjustment costs	52.9	72.6	69.4	70.8
One-off adjustment costs	20.8	30.0	28.3	29.1
Recurrent adjustment costs	32.1	42.6	41.1	41.8

Source: Ricardo et al. (2026), Impact assessment support study

3.3.8. PM8 – Obligation for all B2B and B2C MDMS platforms to display information on GHG or CO_2 emissions of trips (when these data are provided by the operators in line with and Count Emissions EU and Flight Emission Label)

In PM8, non-SME MDMS platforms (non-SME B2B and B2C MDMS platforms) will need to provide clear, transparent and accessible information on the greenhouse gas emissions of the travel options displayed, whenever such information is shared by transport operators. Based on Count Emissions EU and Flight Emission Label operators are expected to share these data in a specific format.

The measure is expected to result in:

- Adjustment costs for non-SME MDMS platforms for presenting GHG and CO2 data when available, of which:
  - One-off adjustment costs for IT development to adjust their display criteria.
  - Recurrent adjustment costs for system maintenance.

One-off and recurrent adjustment costs for non-SME MDMS platforms

The estimate of the one-off adjustment costs for non-SME MDMS platforms to adjust their systems to display the relevant environmental information draws on stakeholder feedback on the software-engineering effort needed to implement the upgrade. Since non-SME MDMS platforms must also modify how transport offers

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are displayed to ensure a neutral presentation, including if they choose to do so with the integration of GHG and CO_2 criteria, it is reasonable to assume that they will leverage economies of scale and simultaneously update their interfaces to include information on GHG and CO_2 emissions. Approximately 90 working days are estimated to be required for a software technician to carry out the upgrade, considering the synergies with PM1 (neutral display), PM2 (equal care for data) and PM3 (marketing and booking data sharing). The one-off cost per MDMS platform is estimated at EUR 23,125. This is multiplied by the number of non-SME MDMS platforms projected to be operational in 2028 (i.e. the year of implementation) and the number of new non-SME MDMS platforms entering the market from 2029 onwards.

In addition, recurrent adjustment costs of 10% of the upgrade costs are assumed for the annual system maintenance (i.e. EUR 2,312 per MDMS platform per year). Taking into account the number of non-SME MDMS platform in the scope of PM8 in each policy option, the total recurrent adjustment costs for 2028, 2030, 2040 and 2050 due to PM8 are provided in the table below.

Table 95: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C) due to PM8 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off cost per MDMS platform to adjust its display criteria (EUR)	23,125	23,125	23,125	23,125
Recurrent costs per MDMS platform (EUR)	2,312	2,312	2,312	2,312
PO1				
Number of non-SME MDMS platforms that incur one-off costs due to PM8	175	4	2	0
Number of non-SME MDMS platforms that incur recurrent costs due to PM8	0	179	210	212
Total one-off adjustment costs (million EUR)	4.1	0.1	0.1	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.5	0.5
PO2				
Number of non-SME MDMS platforms that incur one-off costs due to PM8	175	8	13	0
Number of non-SME MDMS platforms that incur recurrent costs due to PM8	0	183	312	306
Total one-off adjustment costs (million EUR)	4.1	0.2	0.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.7	0.7
PO3				
Number of non-SME MDMS platforms that incur one-off costs due to PM8	175	9	11	0
Number of non-SME MDMS platforms that incur recurrent costs due to PM8	0	182	292	303
Total one-off adjustment costs (million EUR)	4.1	0.2	0.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.7	0.7
PO4				
Number of non-SME MDMS platforms that incur one-off costs due to PM8	175	8	12	0
Number of non-SME MDMS platforms that incur recurrent costs due to PM8	0	183	301	305
Total one-off adjustment costs (million EUR)	4.1	0.2	0.3	0.0
Total recurrent adjustment costs (million EUR)	0.0	0.4	0.7	0.7

Source: Ricardo et al. (2026), Impact assessment support study

The table above covers total one-off and recurrent adjustment costs for both non-SME B2B and B2C platforms. As already explained, most B2B MDMS platforms operate EU-wide and it is not possible to provide the costs by Member State. Therefore, only the part of the total one-off and recurrent adjustment costs for the non-SME B2C platforms is provided by Member State in the tables below, by policy option[351].

[351] Costs for some Member States are zero because no large B2C platforms are projected to operate in these countries.

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Table 96: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM8 in PO1 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	415.8	51.2	55.1	50.3
Austria	311.8	38.4	41.3	37.7
Denmark	207.9	25.6	27.5	25.2
Luxembourg	138.6	17.1	18.4	16.8
Finland	173.2	21.3	22.9	21.0
Spain	138.6	17.1	18.4	16.8
Netherlands	346.5	42.7	45.9	41.9
France	450.4	55.5	59.6	54.5
Poland	242.5	29.9	32.1	29.4
Italy	207.9	25.6	27.5	25.2
Belgium	207.9	25.6	27.5	25.2
Portugal	69.3	8.5	9.2	8.4
Malta	34.6	4.3	4.6	4.2
Cyprus	34.6	4.3	4.6	4.2
Greece	69.3	8.5	9.2	8.4
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.6	4.3	4.6	4.2
Lithuania	0.0	0.0	0.0	0.0
Hungary	103.9	12.8	13.8	12.6
Sweden	69.3	8.5	9.2	8.4
Czechia	103.9	12.8	13.8	12.6
Ireland	69.3	8.5	9.2	8.4
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.6	4.3	4.6	4.2
Total	**3,464.8**	**426.7**	**458.8**	**419.4**

Source: Ricardo et al. (2026), Impact assessment support study

Table 97: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM8 in PO2 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	415.8	62.9	105.8	72.6
Austria	311.8	47.2	79.3	54.4
Denmark	207.9	31.5	52.9	36.3
Luxembourg	138.6	21.0	35.3	24.2
Finland	173.2	26.2	44.1	30.2
Spain	138.6	21.0	35.3	24.2
Netherlands	346.5	52.4	88.1	60.5
France	450.4	68.2	114.6	78.6
Poland	242.5	36.7	61.7	42.3
Italy	207.9	31.5	52.9	36.3
Belgium	207.9	31.5	52.9	36.3
Portugal	69.3	10.5	17.6	12.1
Malta	34.6	5.2	8.8	6.0
Cyprus	34.6	5.2	8.8	6.0
Greece	69.3	10.5	17.6	12.1
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.6	5.2	8.8	6.0
Lithuania	0.0	0.0	0.0	0.0
Hungary	103.9	15.7	26.4	18.1
Sweden	69.3	10.5	17.6	12.1
Czechia	103.9	15.7	26.4	18.1
Ireland	69.3	10.5	17.6	12.1

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	2028	2030	2040	2050
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.6	5.2	8.8	6.0
Total	**3,464.8**	**524.3**	**881.3**	**604.7**

Source: Ricardo et al. (2026), Impact assessment support study

Table 98: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM8 in PO3 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	415.8	63.9	96.1	72.0
Austria	311.8	47.9	72.1	54.0
Denmark	207.9	31.9	48.0	36.0
Luxembourg	138.6	21.3	32.0	24.0
Finland	173.2	26.6	40.0	30.0
Spain	138.6	21.3	32.0	24.0
Netherlands	346.5	53.2	80.1	60.0
France	450.4	69.2	104.1	78.0
Poland	242.5	37.3	56.1	42.0
Italy	207.9	31.9	48.0	36.0
Belgium	207.9	31.9	48.0	36.0
Portugal	69.3	10.6	16.0	12.0
Malta	34.6	5.3	8.0	6.0
Cyprus	34.6	5.3	8.0	6.0
Greece	69.3	10.6	16.0	12.0
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.6	5.3	8.0	6.0
Lithuania	0.0	0.0	0.0	0.0
Hungary	103.9	16.0	24.0	18.0
Sweden	69.3	10.6	16.0	12.0
Czechia	103.9	16.0	24.0	18.0
Ireland	69.3	10.6	16.0	12.0
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.6	5.3	8.0	6.0
Total	**3,464.8**	**532.2**	**800.7**	**600.4**

Source: Ricardo et al. (2026), Impact assessment support study

Table 99: Total one-off and recurrent adjustment costs for non-SME B2C MDMS platforms due to PM8 in PO4 in 2028, 2030, 2040 and 2050 relative to the baseline (thousand EUR, in 2024 prices)

	2028	2030	2040	2050
Germany	415.8	62.9	100.8	72.3
Austria	311.8	47.1	75.6	54.2
Denmark	207.9	31.4	50.4	36.1
Luxembourg	138.6	21.0	33.6	24.1
Finland	173.2	26.2	42.0	30.1
Spain	138.6	21.0	33.6	24.1
Netherlands	346.5	52.4	84.0	60.2
France	450.4	68.1	109.2	78.3
Poland	242.5	36.7	58.8	42.2
Italy	207.9	31.4	50.4	36.1
Belgium	207.9	31.4	50.4	36.1
Portugal	69.3	10.5	16.8	12.0
Malta	34.6	5.2	8.4	6.0
Cyprus	34.6	5.2	8.4	6.0
Greece	69.3	10.5	16.8	12.0

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	2028	2030	2040	2050
Bulgaria	0.0	0.0	0.0	0.0
Estonia	0.0	0.0	0.0	0.0
Croatia	34.6	5.2	8.4	6.0
Lithuania	0.0	0.0	0.0	0.0
Hungary	103.9	15.7	25.2	18.1
Sweden	69.3	10.5	16.8	12.0
Czechia	103.9	15.7	25.2	18.1
Ireland	69.3	10.5	16.8	12.0
Slovenia	0.0	0.0	0.0	0.0
Latvia	0.0	0.0	0.0	0.0
Romania	0.0	0.0	0.0	0.0
Slovakia	34.6	5.2	8.4	6.0
Total	**3,464.8**	**523.8**	**839.7**	**602.4**

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050 relative to the baseline, the total one-off and recurrent adjustment costs due to PM8 for non-SME B2B and B2C MDMS platforms are provided in the table below, by policy option.

Table 100: One-off and recurrent adjustment costs for non-SME MDMS platforms (B2B and B2C) due to PM8 in the policy options, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total adjustment costs	12.1	16.7	15.9	16.3
One-off adjustment costs	4.8	6.9	6.5	6.7
Recurrent adjustment costs	7.4	9.8	9.4	9.6

Source: Ricardo et al. (2026), Impact assessment support study

3.3.9. PM9 – Thresholds to identify MDMS platforms and RUs with SMP

PM9 sets thresholds for the identification of MDMS platforms with SMP (in the platform market) and RUs with SMP (in the passenger railway services market). As detailed in section 5.1, to operationalise the concept of indispensability in the B2C distribution market, an MDMS platform is considered as having SMP if it controls at least 10% of the EU market or 30% of a national market, based on either the total value or volume of tickets sold in one transport mode. For RUs, SMP is defined as operating 50% or more of total rail services in a Member State, measured in annual passenger-kilometres, including both domestic and cross-border services. No direct costs are expected from PM9. This only leads to costs in combination with other measures such as PM10, PM11, PM12, PM13, PM14 and PM15. The costs are described under the respective measures.

3.3.10. PM10 – B2C MDMS platforms with SMP: must notify national authorities or the EC about their market presence. National authorities designate B2C MDMS platform, RUs with SMP and indispensable RU platforms at national level, while the EC designates B2C MDMS platforms with SMP at EU level. The EC publishes a list of MDMS platforms (including indispensable RU platforms) and RUs with SMP at both national and EU level

According to PM10, when an MDMS platform meets the thresholds at EU level, it shall notify the Commission and the national enforcement body, for the thresholds at national level. The national enforcement body designates B2C MDMS and RUs with SMP at national level, as well as indispensable RU platforms. For RU, this is done following the procedure of the Rail Market Monitoring Scheme. National enforcement Bodies need to inform the Commission of their respective designation decisions. The Commission will publish on its official website, and keep up to date, a list of the designated, at national or Union's level, MDMS

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platforms and RUs with SMP. This also lists indispensable RUs platforms which are considered indispensable when it is owned by an indispensable RU.

The measure is expected to result in:

- One-off administrative costs:
  - For MDMS platforms to send a notification to authorities in order to determine the Significant Market Presence (SMP);
  - For national authorities designated under PM6 to receive notifications from B2C MDMS platforms and notify the European Commission about the designated entities with SMP at national level and potentially deal with complaints;
  - For RUs with SMP to provide a list to authorities of their platforms.
- Recurrent adjustment costs for the European Commission to designate B2C MDMS with SMP at EU level and deal with related complaints.

One-off administrative costs for MDMS platforms with SMP

MDMS platforms with SMP are expected to incur off-costs administrative for notifying national authorities (PM10). In the baseline, RUs already submit the required information through the RMMS scheme[352]. Under PM10 this is thus a new requirement only for MDMS platforms. Evidence for the costs incurred is taken from the impact assessment for the Digital Market Act, which assumed 20 FTEs per 'Gatekeeper' for submission of relevant data to authorities[353]. In this case, the entities are much smaller than those regulated under the DMA (Apple, Google, etc.) and the process is expected to be much lighter (platforms only need to notify that they have reached a threshold). The one-off effort required in 2028 is therefore assumed at 2 FTE per MDMS platform. Only platforms reaching the threshold set in PM9 (4 MDMS platforms) would be requested to submit this information, and once submitted, those designated would not be obliged to submit any further notification in the consecutive years. The one-off administrative costs for the MDMS platforms in 2028 in all the policy options are provided in the table below.

Table 101: One-off administrative costs for MDMS platforms due to PM10 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off costs per MDMS platform (EUR)	113,053			
PO1				
Number of MDMS platforms that incur one-off costs due to PM10	4	0	0	0
Total one-off administrative costs (million EUR)	0.5	0.0	0.0	0.0
PO2				
Number of MDMS platforms that incur one-off costs due to PM10	4	0	0	0
Total one-off administrative costs (million EUR)	0.5	0.0	0.0	0.0
PO3				
Number of MDMS platforms that incur one-off costs due to PM10	4	0	0	0
Total one-off administrative costs (million EUR)	0.5	0.0	0.0	0.0
PO4				
Number of MDMS platforms that incur one-off costs due to PM10	4	0	0	0
Total one-off administrative costs (million EUR)	0.5	0.0	0.0	0.0

Source: Ricardo et al. (2026), Impact assessment support study

One-off administrative costs for RU with SMP

[352] https://transport.ec.europa.eu/transport-modes/rail/market/rail-market-monitoring-rmms_en
[353] https://eur-lex.europa.eu/resource.html?uri=cellar:57a5679e-3f85-11eb-b27b-01aa75ed71a1.0001.02/DOC_2&format=PDF

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In PM10, RUs with SMP are expected to incur one-off administrative costs for informing national authorities about the list of their platforms and whether these are opened to other RUs. This is meant to support the identification and designation of indispensable RU platforms (a RU platform is considered indispensable when it is owned by a RU with SMP and if its IT system is already opened to other RUs). It is assumed that 2 hours are needed per RU with SMP for this task. Only RUs with SMP in line with PM9, and whose platforms are already opened to other RUs (19) would be requested to submit this information, and once submitted, they would not be obliged to submit any further information in subsequent years, unless a change occurs. We therefore assume one-off administrative costs for RUs to be relevant for 2028 (i.e. the year of implementation). Considering the hourly rates presented in section 3.2 of Annex 4, they are estimated at EUR 71.4 per RU. Thus, the total one-off administrative costs at EU level for RUs are estimated at EUR 1,356 in 2028.

Table 102: One-off administrative costs for RUs due to PM10 in the policy options in 2028, 2030, 2040 and 2050 relative to the baseline (in 2024 prices)

	2028	2030	2040	2050
One-off costs per RU (EUR)	71.4			
PO1				
Number of RUs that incur one-off costs due to PM10	19	0	0	0
Total one-off administrative costs (million EUR)	0.001	0.0	0.0	0.0
PO2				
Number of RUs that incur one-off costs due to PM10	19	0	0	0
Total one-off administrative costs (million EUR)	0.001	0.0	0.0	0.0
PO3				
Number of RUs that incur one-off costs due to PM10	19	0	0	0
Total one-off administrative costs (million EUR)	0.001	0.0	0.0	0.0
PO4				
Number of RUs that incur one-off costs due to PM10	19	0	0	0
Total one-off administrative costs (million EUR)	0.001	0.0	0.0	0.0

Source: Ricardo et al. (2026), Impact assessment support study

One-off administrative costs for national authorities

Member States are expected to incur costs for processing the notifications from MDMS platforms with SMP, designating them and submitting this information to the EC (PM10) in 2028 (the year of implementation). They are also assumed to assess the submissions of the RUs under the RMMS for assessing the SMP and designating indispensable RU platforms. The one-off effort required is estimated at 2 FTEs per Member State in 2028. The one-off administrative costs per Member State are thus estimated at EUR 113,053 and the total one-off administrative costs at EU level at EUR 3.1 million. National authorities might also need to deal with complaints/further investigations related to the designation process. These costs, along the ones related to the monitoring market developments, are already accounted for in PM6.

Table 103: One-off administrative costs for national authorities due to PM10

	2028	2030	2040	2050
Cost of processing market information per Member State due to PM10 in EUR	113,053	0.0	0.0	0.0
All policy options				
Total one-off administrative cost (million EUR)	3.1	0.0	0.0	0.0

Source: Ricardo et al. (2026), Impact assessment support study

Recurrent adjustment costs for the European Commission

PM10 introduces a requirement for the European Commission to designate B2C MDMS platforms with SMP at EU-level, after receiving notifications from platforms. EC might also need to deal with complaints/further investigations related to the designation process. Over time, EC will need to monitor developments and manage the list of designated entities (with potential additions or removals from the list). This is assumed to require 2 FTE per year from 2028 onwards. The cost per FTE was assumed at EUR 118,326 at AD5 level,

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including overheads. Thus, the total recurrent adjustment costs for EC are estimated at EUR 236,652 per year in all policy options. Expressed as present value over 2028-2050, relative to the baseline, they are estimated at EUR 4 million.

Table 104: Recurrent adjustment costs for the European Commission due to PM10 (in EUR, 2024 prices)

	2028	2030	2040	2050
Recurrent adjustment costs to designate platforms with SMP and deal with complains (PM10)	236,652	236,652	236,652	236,652

Source: Ricardo et al. (2026), Impact assessment support study

Table 105: Adjustment costs for the European Commission due to PM10 in the policy options, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to the baseline			
	PO1	PO2	PO3	PO4
Total adjustment costs	4.01	4.01	4.01	4.01
One-off adjustment costs	-	-	-	-
Recurrent adjustment costs	4.01	4.01	4.01	4.01

Source: Ricardo et al. (2026), Impact assessment support study

3.3.11. PM11 – B2C MDMS platforms with SMP, indispensable RU platforms and B2B MDMS: must respect principles on distribution fees and cannot impose highly restrictive clauses (exclusivity clauses, unfair and unjustified conditions, marketing clauses and other technical restrictions) when entering into commercial agreements with transport operators

In PM11, MDMS platforms with SMP, indispensable RU platforms and B2B MDMS providers must respect a set of rules when entering into a commercial agreement with an operator, such as (1) the protection of commercially sensitive data, (2) cannot attach unjustified contract conditions or unnecessary to the contract, (3) apply remuneration based on objective and transparent criteria (such as quality and level of services, annual volume of transport products distributed, look-to-book ratios, etc). These criteria must be transparently shared with the operator or the NEB if requested. They should not discriminate between transport operators, and B2B MDMS providers must ensure equal access to distribution facilities and maintain a clear software-based separation from transport operators' private systems. PM11 retains and extends the rules on fair treatment of transport operators of the CRS Code of Conduct to all other B2B MDMS and to B2C MDMS with SMP to prevent abusive behaviours through unfair and unjustified conditions.

The measure is expected to result in:

- Recurrent adjustment cost savings for transport operators and MDMS platforms due to simplification in commercial agreements from the use of principles on distribution fees. These apply only to commercial agreements entered by B2C MDMS with SMP, or B2B MDMS.

PM11 is expected to result in lower costs for negotiating and renegotiating contracts relative to the baseline for both sides of the agreement (i.e. transport operators and MDMS platforms). The stakeholders survey conducted in the context of the impact assessment support study provided a range of costs for negotiating a new service licence agreement between a transport operator and an MDMS platform. A rail operator estimated EUR 20,000 per service licence agreement and a public transport operator suggested 6 months to a year of negotiation time. A cost of EUR 20,000 is assumed, expressed in 2024 prices. Responses to the same consultation suggested contract renegotiation costs of EUR 11,830. Costs savings of 10% are assumed due to PM11, equivalent to costs savings of EUR 2,000 per new agreement and EUR 1,183 per renegotiation.

First, the changes in the number of new agreements and renegotiated agreements have been calculated for each policy option relative to the baseline, as explained in section 3.1.3 of Annex 4. In the second step, the costs savings for MDMS platforms and transport operators have been calculated by applying the costs savings

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per new agreement or renegotiated agreement to the difference in new agreements and renegotiated agreements relative to the baseline. The distribution of savings between non-SMEs and SMEs is assumed proportional to the share of SMEs in each group (i.e. 74% SMEs for B2B platforms and 78% for transport operators at aggregate level).

Recurrent adjustment costs savings for MDMS platforms

The adjustment costs savings for MDMS platforms due to PM11 in 2028, 2030, 2040 and 2050 relative to the baseline are provided in the table below. The table also includes a split between the costs savings corresponding to non-SME MDMS platforms and SMEs.

Table 106: Adjustment costs savings for MDMS platforms due to PM11 in 2028, 2030, 2040 and 2050 relative to the baseline

	2028	2030	2040	2050
Cost savings per new agreement (EUR)	2,000	2,000	2,000	2,000
Cost savings per renegotiated agreement (EUR)	1,183	1,183	1,183	1,183
PO1				
New agreements by non-SME platforms (changes relative to the baseline)	0	75	29	0
New agreements by SME platforms (changes relative to the baseline)	0	189	75	0
Renegotiated agreements by non-SME platforms (changes relative to the baseline)	0	50	223	95
Renegotiated agreements by SME platforms (changes relative to the baseline)	0	126	566	240
Total adjustment cost savings for non-SME platforms (million EUR)	0.0	0.2	0.3	0.1
Total adjustment cost savings for SME platforms (million EUR)	0.0	0.5	0.8	0.3
PO2				
New agreements by non-SME platforms (changes relative to the baseline)	1,483	276	481	0
New agreements by SME platforms (changes relative to the baseline)	2,642	662	1,158	0
Renegotiated agreements by non-SME platforms (changes relative to the baseline)	494	678	2,281	1,857
Renegotiated agreements by SME platforms (changes relative to the baseline)	881	1,322	5,183	4,141
Total adjustment cost savings for non-SME platforms (million EUR)	3.6	1.4	3.7	2.2
Total adjustment cost savings for SME platforms (million EUR)	6.3	2.9	8.4	4.9
PO3				
New agreements by non-SME platforms (changes relative to the baseline)	1,496	276	399	0
New agreements by SME platforms (changes relative to the baseline)	2,642	662	960	0
Renegotiated agreements by non-SME platforms (changes relative to the baseline)	499	660	1,990	1,861
Renegotiated agreements by SME platforms (changes relative to the baseline)	881	1,268	4,467	4,141
Total adjustment cost savings for non-SME platforms (million EUR)	3.6	1.3	3.2	2.2
Total adjustment cost savings for SME platforms (million EUR)	6.3	2.8	7.2	4.9
PO4				
New agreements by non-SME platforms (changes relative to the baseline)	2,015	276	440	0
New agreements by SME platforms (changes relative to the baseline)	2,642	662	1,059	0
Renegotiated agreements by non-SME platforms (changes relative to the baseline)	672	667	2,133	1,857
Renegotiated agreements by SME platforms (changes relative to the baseline)	881	1,295	4,825	4,141
Total adjustment cost savings for non-SME platforms (million EUR)	4.8	1.3	3.4	2.2
Total adjustment cost savings for SME platforms (million EUR)	6.3	2.9	7.8	4.9

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050, relative to the baseline, the adjustment costs savings for non-SME and SME MDMS platforms are provided in the table below.

Table 107: Recurrent adjustment costs savings for MDMS platforms due to PM11, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Non-SME MDMS platforms	3.4	42.3	38.4	41.6

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	Difference to baseline			
	PO1	PO2	PO3	PO4
SME MDMS platforms	8.6	93.7	83.9	88.8

Source: Ricardo et al. (2026), Impact assessment support study

Recurrent adjustment costs savings for transport operators

The adjustment costs savings for transport operators due to PM11 in 2028, 2030, 2040 and 2050 relative to the baseline are provided in the table below. The table also includes a split between the costs savings corresponding to non-SME transport operators and SMEs.

Table 108: Adjustment costs savings for transport operators due to PM11 in 2028, 2030, 2040 and 2050 relative to the baseline

	2028	2030	2040	2050
Cost savings per new agreement (EUR)	2,000	2,000	2,000	2,000
Cost savings per renegotiated agreement (EUR)	1,183	1,183	1,183	1,183
PO1				
New agreements by non-SME operators (changes relative to the baseline)	0	58	23	0
New agreements by SME operators (changes relative to the baseline)	0	206	81	0
Renegotiated agreements by non-SME operators (changes relative to the baseline)	0	39	173	73
Renegotiated agreements by SME operators (changes relative to the baseline)	0	137	616	261
Total adjustment cost savings for non-SME operators (million EUR)	0.0	0.2	0.3	0.1
Total adjustment cost savings for SME operators (million EUR)	0.0	0.6	0.9	0.3
PO2				
New agreements by non-SME operators (changes relative to the baseline)	906	206	360	0
New agreements by SME operators (changes relative to the baseline)	3,220	732	1,279	0
Renegotiated agreements by non-SME operators (changes relative to the baseline)	302	439	1,639	1,317
Renegotiated agreements by SME operators (changes relative to the baseline)	1,073	1,561	5,825	4,681
Total adjustment cost savings for non-SME operators (million EUR)	2.2	0.9	2.7	1.6
Total adjustment cost savings for SME operators (million EUR)	7.7	3.3	9.4	5.5
PO3				
New agreements by non-SME operators (changes relative to the baseline)	909	206	298	0
New agreements by SME operators (changes relative to the baseline)	3,230	732	1,060	0
Renegotiated agreements by non-SME operators (changes relative to the baseline)	303	423	1,418	1,318
Renegotiated agreements by SME operators (changes relative to the baseline)	1,077	1,505	5,039	4,684
Total adjustment cost savings for non-SME operators (million EUR)	2.2	0.9	2.3	1.6
Total adjustment cost savings for SME operators (million EUR)	7.7	3.2	8.1	5.5
PO4				
New agreements by non-SME operators (changes relative to the baseline)	1,023	206	329	0
New agreements by SME operators (changes relative to the baseline)	3,635	732	1,170	0
Renegotiated agreements by non-SME operators (changes relative to the baseline)	341	431	1,528	1,317
Renegotiated agreements by SME operators (changes relative to the baseline)	1,212	1,531	5,430	4,681
Total adjustment cost savings for non-SME operators (million EUR)	2.4	0.9	2.5	1.6
Total adjustment cost savings for SME operators (million EUR)	8.7	3.3	8.8	5.5

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050, relative to the baseline, the adjustment costs savings for non-SME and SME transport operators are provided in the table below.

Table 109: Recurrent adjustment costs savings for transport operators due to PM11, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Non-SME operators	2.6	29.9	26.9	28.6

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	Difference to baseline			
	PO1	PO2	PO3	PO4
SME operators	9.4	106.2	95.4	101.8

Source: Ricardo et al. (2026), Impact assessment support study

3.3.12. PM12 – Indispensable RUs (RUs with SMP and RUs operating PSO or cross- border services): must respect principles on distribution fees without imposing restrictive clauses (exclusivity clauses, marketing clauses and other technical restrictions) when entering into commercial agreements with MDMS platforms

In PM12, indispensable RUs (with SMP) and all other rail undertakings in relation to PSO and cross- border services, are obliged to enter into a commercial agreement when requested by an online distribution platform. When entering a commercial agreement with an online distribution platform, these entities must apply non-discriminatory and reasonable contract conditions. Beyond, they may not include conditions that would prevent the online distribution platform to combine their tickets and fares with any other ticket of other RUs, and which would potentially prevent the platforms to offer single tickets.

Similarly to PM11, PM12 requires adherence to principles on distribution fees and preventing restrictive practices. In PM12 they apply to agreements entered by RUs with SMP and other large RUs operating PSOs or international rail services, with MDMS platforms. The same costs savings per new agreement and renegotiated agreement are assumed as in PM12 and the approach is similar for estimating the recurrent adjustment costs savings. The distribution of costs savings between non-SME companies and SMEs follows the share of SMEs within each group (i.e. 7% for PSOs and cross-border RUs, and 56% for B2B and B2C MDMS platforms).

Recurrent adjustment costs savings for MDMS platforms

The adjustment costs savings for MDMS platforms due to PM12 in 2028, 2030, 2040 and 2050 relative to the baseline are provided in the table below. The table also includes a split between the costs savings corresponding to non-SME MDMS platforms and SMEs.

Table 110: Adjustment costs savings for MDMS platforms due to PM12 in 2028, 2030, 2040 and 2050 relative to the baseline

	2028	2030	2040	2050
Cost savings per new agreement (EUR)	2,000	2,000	2,000	2,000
Cost savings per renegotiated agreement (EUR)	1,183	1,183	1,183	1,183
PO1				
New agreements made by non-SME platforms (changes relative to the baseline)	0	9	4	0
New agreements made by SME platforms (changes relative to the baseline)	0	12	5	0
Renegotiated agreements made by non-SME platforms (changes relative to the baseline)	0	6	28	12
Renegotiated agreements made by SME platforms (changes relative to the baseline)	0	8	35	15
Total adjustment cost savings for non-SME platforms (million EUR)	0.0	0.0	0.0	0.0
Total adjustment cost savings for SME platforms (million EUR)	0.0	0.0	0.1	0.0
PO2				
New agreements made by non-SME platforms (changes relative to the baseline)	210	36	63	0
New agreements made by SME platforms (changes relative to the baseline)	268	46	80	0
Renegotiated agreements made by non-SME platforms (changes relative to the baseline)	70	94	304	249

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	2028	2030	2040	2050
Renegotiated agreements made by SME platforms (changes relative to the baseline)	89	120	388	318
Total adjustment cost savings for non-SME platforms (million EUR)	0.5	0.2	0.5	0.3
Total adjustment cost savings for SME platforms (million EUR)	0.6	0.2	0.6	0.4
PO3				
New agreements made by non-SME platforms (changes relative to the baseline)	210	36	52	0
New agreements made by SME platforms (changes relative to the baseline)	268	47	67	0
Renegotiated agreements made by non-SME platforms (changes relative to the baseline)	70	91	265	249
Renegotiated agreements made by SME platforms (changes relative to the baseline)	89	117	339	319
Total adjustment cost savings for non-SME platforms (million EUR)	0.5	0.2	0.4	0.3
Total adjustment cost savings for SME platforms (million EUR)	0.6	0.2	0.5	0.4
PO4				
New agreements made by non-SME platforms (changes relative to the baseline)	217	36	58	0
New agreements made by SME platforms (changes relative to the baseline)	277	46	74	0
Renegotiated agreements made by non-SME platforms (changes relative to the baseline)	72	93	284	249
Renegotiated agreements made by SME platforms (changes relative to the baseline)	92	118	363	318
Total adjustment cost savings for non-SME platforms (million EUR)	0.5	0.2	0.5	0.3
Total adjustment cost savings for SME platforms (million EUR)	0.7	0.2	0.6	0.4

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050, relative to the baseline, the adjustment costs savings for non-SME and SME MDMS platforms are provided in the table below.

Table 111: Recurrent adjustment costs savings for MDMS platforms due to PM12, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Non-SME MDMS platforms	0.4	5.7	5.2	5.4
SME MDMS platforms	0.5	7.3	6.6	6.9

Source: Ricardo et al. (2026), Impact assessment support study

Recurrent adjustment costs savings for transport operators

The adjustment costs savings for transport operators due to PM12 in 2028, 2030, 2040 and 2050 relative to the baseline are provided in the table below. The table also includes a split between the costs savings corresponding to non-SME transport operators and SMEs.

Table 112: Adjustment costs savings for transport operators due to PM12 in 2028, 2030, 2040 and 2050 relative to the baseline

	2028	2030	2040	2050
Cost savings per new agreement (EUR)	2,000	2,000	2,000	2,000
Cost savings per renegotiated agreement (EUR)	1,183	1,183	1,183	1,183
PO1				
New agreements made by non-SME operators (changes relative to the baseline)	0	20	8	0

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	2028	2030	2040	2050
New agreements made by SME operators (changes relative to the baseline)	0	1	0	0
Renegotiated agreements made by non-SME operators (changes relative to the baseline)	0	13	59	25
Renegotiated agreements made by SME operators (changes relative to the baseline)	0	1	4	2
Total adjustment cost savings for non-SME operators (million EUR)	0.0	0.1	0.1	0.0
Total adjustment cost savings for SME operators (million EUR)	0.0	0.0	0.0	0.0
PO2				
New agreements made by non-SME operators (changes relative to the baseline)	449	77	135	0
New agreements made by SME operators (changes relative to the baseline)	29	5	9	0
Renegotiated agreements made by non-SME operators (changes relative to the baseline)	150	201	650	534
Renegotiated agreements made by SME operators (changes relative to the baseline)	10	13	41	34
Total adjustment cost savings for non-SME operators (million EUR)	1.1	0.4	1.0	0.6
Total adjustment cost savings for SME operators (million EUR)	0.1	0.0	0.1	0.0
PO3				
New agreements made by non-SME operators (changes relative to the baseline)	449	78	112	0
New agreements made by SME operators (changes relative to the baseline)	29	5	7	0
Renegotiated agreements made by non-SME operators (changes relative to the baseline)	150	196	568	534
Renegotiated agreements made by SME operators (changes relative to the baseline)	10	12	36	34
Total adjustment cost savings for non-SME operators (million EUR)	1.1	0.4	0.9	0.6
Total adjustment cost savings for SME operators (million EUR)	0.1	0.0	0.1	0.0
PO4				
New agreements made by non-SME operators (changes relative to the baseline)	464	78	123	0
New agreements made by SME operators (changes relative to the baseline)	30	5	8	0
Renegotiated agreements made by non-SME operators (changes relative to the baseline)	155	198	609	534
Renegotiated agreements made by SME operators (changes relative to the baseline)	10	13	39	34
Total adjustment cost savings for non-SME operators (million EUR)	1.1	0.4	1.0	0.6
Total adjustment cost savings for SME operators (million EUR)	0.1	0.0	0.1	0.0

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050, relative to the baseline, the adjustment costs savings for non-SME and SME transport operators are provided in the table below.

Table 113: Recurrent adjustment costs savings for transport operators due to PM12, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Non-SME operators	0.9	12.2	11.0	11.6
SME operators	0.1	0.8	0.7	0.7

Source: Ricardo et al. (2026), Impact assessment support study

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3.3.13. PM13 – Indispensable RUs (with SMP and operating PSO and cross- border services): must enter into commercial agreements with willing MDMS platforms to enable the re-linking, resale and/or distribution of their tickets

PM13 introduces an obligation for indispensable RUs (RUs with SMP and PSO/cross-border RUs) to enter into commercial agreements with willing ticketing platforms to allow the distribution of their tickets.

Since obligated RUs would not have entered these commercial agreements in the absence of policy intervention, obligated entities therefore incur costs to facilitate this. Beyond, while costs would also reasonably be expected for the MDMS platform that wants to display the RUs, as profit-making business that benefit from economies of scale from the passengers they serve, they would also be expected to generate revenues that would at least outweigh the costs. If they did not, then the platform would not be 'willing' to enter the agreement.

The measure is expected to result in:

- One-off adjustment costs for indispensable RUs to enter into commercial agreements with willing MDMS platforms to enable the re-linking, resale and/or distribution of their tickets.

One-off adjustment costs for indispensable RUs

The one-off adjustment costs for indispensable RUs due to PM13 cover two elements: (*i*) the cost of negotiating the agreement; and (*ii*) the cost of facilitating data exchange for distribution.

Indispensable RUs are expected to incur one-off adjustment costs for entering into commercial agreements with willing MDMS platforms. As regards the costs of negotiating agreements, given that PM11 and PM12 apply in all policy options, principles on distribution fees and terms preventing highly restrictive clauses are assumed to reduce contract negotiation costs by 10%, leading to an assumed total negotiation cost of EUR 18,000 per agreement. The technical costs for facilitating data exchange for distribution are already accounted for in the baseline since TSI Telematics[354] imposes interoperability requirements in rail. The only additional cost relevant for PM13 relative to the baseline relates to ensuring that distribution APIs of RUs are ready for the third party to connect. This is estimated at 10% of setting up an API (as estimated in PM7), or EUR 11,772, including management of any technical request from the third party connected to the API. These two elements translate into a total one-off cost of onboarding a new third-party platform estimated at EUR 29,772. Total one-off costs for indispensable RUs are calculated by multiplying the onboarding cost with the number of additional agreements negotiated by RUs in PO2, PO3 and PO4 relative to the baseline. The method for estimating the additional new agreements brought about by PM13 in each year is explained in section 3.1.3 of Annex 4.

The one-off adjustment costs for indispensable RUs in 2028, 2030, 2040, 2050 in PO2, PO3 and PO4 are provided in the table below.

Table 114: One-off adjustment costs for indispensable RUs due to PM13 in PO2, PO3 and PO4 in 2028, 2030, 2040 and 2050 relative to the baseline (in million EUR, 2024 prices)

	2028	2030	2040	2050
One-off costs per new agreement negotiated by indispensable RUs (EUR)	29,772	29,772	29,772	29,772
PO2				
New agreements by indispensable RUs (changes relative to the baseline)	449	77	135	0
Total one-off adjustment costs for indispensable RUs (million EUR)	13.4	2.3	4.0	0.0
PO3				

[354] OJ L, 2026/253, 10.2.2026, p. 1.

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	2028	2030	2040	2050
New agreements by indispensable RUs (changes relative to the baseline)	449	78	112	0
Total one-off adjustment costs for indispensable RUs (million EUR)	13.4	2.3	3.3	0.0
PO4				
New agreements by indispensable RUs (changes relative to the baseline)	155	198	609	534
Total one-off adjustment costs for indispensable RUs (million EUR)	4.6	5.9	18.1	15.9

Source: Ricardo et al. (2026), Impact assessment support study

Expressed as present value over 2028-2050 relative to the baseline, the total one-off adjustment costs due to PM13 for indispensable RUs are provided in the table below, by policy option.

Table 115: One-off adjustment costs for indispensable RUs due to PM13 in PO2, PO3 and PO4, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
One-off adjustment costs	0.0	48.2	42.2	45.2

Source: Ricardo et al. (2026), Impact assessment support study

3.3.14. PM14 – Indispensable RU platforms: must enter into commercial agreements with willing RUs to enable the distribution of tickets

PM14 introduces an obligation for indispensable RUs platforms (a RU platform is considered indispensable when it is owned by an indispensable RU and if its IT system is already opened to other RUs) to enter into commercial agreements with willing RUs to allow the distribution of their tickets.

Since obligated RUs platforms would not have entered these commercial agreements in the absence of policy intervention, obligated entities therefore incur costs to facilitate this. As in PM13, the cost is assumed to cover two elements: (*i*) the cost of negotiating the agreement; and (*ii*) the cost of facilitating data exchange for distribution. Beyond, while costs would also reasonably be expected for the RUs that want to enter into agreement, they would also be expected to generate revenues that would at least outweigh the costs thanks to an increase in ticket sales. If they did not, then the RU would not be 'willing' to enter the agreement.

The measure is expected to result in:

- One-off adjustment costs for indispensable RU platforms to enter into commercial agreements with willing RUs to enable the distribution of tickets.

One-off adjustment costs for indispensable RUs platforms

Indispensable RU platforms are expected to incur off-costs adjustment costs for entering into commercial agreements with willing RUs (PM14). As regards the costs of negotiating agreements and the technical costs related to facilitating data exchange for distribution, the same logic described in PM13 is applied. These two elements translate into a total one-off cost of onboarding a new third-party platform estimated at EUR 29,772. Total one-off costs are calculated by multiplying the onboarding cost with the number of additional agreements negotiated by indispensable RU platforms relative to the baseline in PO3. The method for estimating the additional new agreements brought about by PM13 in each year is explained in section 3.1.3 of Annex 4.

The one-off adjustment costs for indispensable RU platforms in 2028 in PO3 are provided in the table below.

Table 116: One-off adjustment costs for indispensable RU platforms due to PM14 in PO3 in 2028, 2030, 2040 and 2050 relative to the baseline

	2028	2030	2040	2050
One-off costs per new agreement negotiated by indispensable RU platforms (EUR)	29,772	29,772	29,772	29,727

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	2028	2030	2040	2050
PO3				
New agreements by indispensable RU platforms (changes relative to the baseline)	13	0	0	0
Total one-off adjustment costs for indispensable RU platforms (million EUR)	0.4	0.0	0	0

Source: Ricardo et al. (2026), Impact assessment support study

The total one-off adjustment costs due to PM14 for indispensable RU platforms are provided in the table below for PO3.

Table 117: One-off adjustment costs for indispensable RUs due to PM14 in PO3 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total one-off adjustment costs	0	0	0.4	0

Source: Ricardo et al. (2026), Impact assessment support study

3.3.15. PM15 – Indispensable RU platforms: must unbundle its distribution system from the systems of its parent operator

According to PM15, indispensable RU platforms shall unbundle their railway ticket distribution systems from their railway operations. The platform shall be in organisational, functional, hierarchical and decision-making terms, legally distinct and independent from any RU.

The measure is expected to result in:

- One-off adjustment costs for indispensable RU platforms to unbundle their distribution system from the systems of the parent operator.

One-off adjustment costs for indispensable RU platforms

Indispensable RU platforms are expected to incur off-costs adjustment costs for unbundling their distribution system from the systems of the parent operator in PM15. Unbundling can occur at various levels of intensity: (*i*) accounting separation, whereby operator and distribution channels make up one company, but their accounts are distinct; (*ii*) organisational separation, whereby operator and distribution channels make up distinct organisations with one holding company and their account is thus separated; (*iii*) legal separation, whereby operator and distribution channels constitute totally distinct organisations. In PM15, organisation separation (*ii*) is assumed. The main costs from separation of a distribution channel from its related operator are therefore expected to be: (*i*) one-off costs related to reorganisation (including legal and administrative costs of separation, personnel restructuring, setup costs for new systems and processes for the separated entity, and contract renegotiations), (*ii*) recurrent costs (including loss of economies of scale and increased transaction costs due to co-ordination challenges), and (*iii*) potential loss of revenue (through loss of cross-selling opportunities and reduced capacity to offer a seamless customer service).

The estimate of the one-off adjustment costs for indispensable RU platforms to unbundle their distribution systems draws on a study investigating the costs of vertical separation in the context of owners of rail infrastructure and the operators of rail rolling stock[355]. The study estimates that the annual cost of imposing full 'legal' vertical separation on operators across the EU that were not already separated could exceed EUR 5.8 billion. These costs were described as system-level efficiency costs from reduced capacity for co-

[355] Mizutani, F., Smith, A., Nash, C., & Uranishi, S. (2014). *Comparing the costs of vertical separation, integration, and intermediate organisational structures in European and East Asian railways* (Discussion Paper No. 2014-37). Graduate School of Business Administration, Kobe University.

ordination. This is interpreted as a combination of the one-off and recurrent costs described above and translated into a purely one-off cost given that limited operational inefficiencies are expected from legal separation of a distribution channel. According to data from the European Union Agency for Railways' ERADIS licensing database, there were 176 licensed passenger railway operators active across Europe at the time of the study. Taking the assumption from the study that 50% of European railway networks had already imposed vertical separation, this implies that the total costs were spread over approximately 88 passenger rail operators, yielding an average cost per operator of approximately EUR 85 million annually. A further assumption was made to reflect that unbundling of a distribution channel is likely to be less costly than full legal separation of an operator from an infrastructure entity. It is therefore assumed that indispensable RU platforms would incur only 10% of the assessed cost per operator. This translates into an average cost of approximately EUR 8.5 million, expressed in 2024 prices. This aligns with input from one stakeholder during the consultation for this study who claimed that it cost them 'tens of millions [of euros]' to setup their existing distribution channel, so the cost of separation would likely be lower given the distribution channel is already developed.

The EU-level costs are calculated by multiplying the average one-off cost by the number of indispensable RU platforms (19 in total). Costs are accounted over the first three years of implementation (2028-2030).

The one-off adjustment costs for indispensable RU platforms in 2028 and 2030 in PO4 are provided in the table below.

Table 118: One-off adjustment costs for indispensable RU platforms due to PM15 in PO4 in 2028, 2030, 2040 and 2050 relative to the baseline

	2028	2030	2040	2050
One-off costs per indispensable RU platform (million EUR)	8.5	8.5		
PO4				
Number of indispensable RU platforms that incur one-off costs due to PM15	19	19	0	0
Total one-off adjustment costs (million EUR)	54.1	54.1	0.0	0.0

Source: Ricardo et al. (2026), Impact assessment support study; Note: One-off costs of EUR 54.1 million are also estimated for 2029 although not shown in the table.

Expressed as present value relative to the baseline, the total one-off adjustment costs due to PM15 for indispensable RU platforms are provided in the table below for PO4.

Table 119: One-off adjustment costs for indispensable RUs due to PM15 in PO4, expressed as present value over 2028-2050 relative to the baseline (in million EUR, 2024 prices)

	Difference to baseline			
	PO1	PO2	PO3	PO4
Total one-off adjustment costs	0	0	0	157.7

Source: Ricardo et al. (2026), Impact assessment support study

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3.4. Summary of costs and costs savings by policy option and stakeholder group

This section provides the costs and costs savings by policy option and stakeholder group for 2028, 2030, 2040 and 2050 relative to the baseline. The present value of the costs and costs savings by stakeholder group over 2028-2050, relative to the baseline, are presented in section 6.1 of the impact assessment.

3.4.1. MDMS platforms

Table 120: One-off and recurrent costs, and costs savings for MDMS platforms in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Adjustment costs	**31.0**	**3.8**	**4.1**	**3.8**	**31.0**	**4.7**	**7.9**	**5.4**	**31.4**	**4.8**	**7.2**	**5.4**	**85.1**	**58.8**	**7.5**	**5.4**
PM1 (Neutral display)	4.0	0.5	0.5	0.5	4.0	0.6	1.0	0.7	4.0	0.6	0.9	0.7	4.0	0.6	1.0	0.7
PM2 (Equal care for data)	3.0	0.4	0.4	0.4	3.0	0.5	0.8	0.5	3.0	0.5	0.7	0.5	3.0	0.5	0.7	0.5
PM3 (Marketing and booking data sharing)	2.3	0.3	0.3	0.3	2.3	0.3	0.6	0.4	2.3	0.4	0.5	0.4	2.3	0.3	0.6	0.4
PM7 (Data for mobility management)	17.6	2.2	2.3	2.1	17.6	2.7	4.5	3.1	17.6	2.7	4.1	3.1	17.6	2.7	4.3	3.1
PM8 (GHG emission data)	4.1	0.5	0.5	0.5	4.1	0.6	1.0	0.7	4.1	0.6	0.9	0.7	4.1	0.6	1.0	0.7
PM14 (Obligation to host)									0.4	0.0	0.0	0.0				
PM15 (Obligation to unbundle)													54.1	54.1	0.0	0.0
Administrative costs	**0.5**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**
PM10 (Designation of indispensable MDMS and RUs)	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Adjustment cost savings	**0.0**	**0.8**	**1.2**	**0.4**	**11.0**	**4.7**	**13.2**	**7.8**	**11.1**	**4.6**	**11.3**	**7.8**	**12.3**	**4.6**	**12.3**	**7.8**
PM11 (Commercial agreement rules indispensable MDMS)	0.0	0.7	1.1	0.4	9.9	4.2	12.1	7.1	9.9	4.2	10.4	7.1	11.2	4.2	11.2	7.1
PM12 (Commercial agreement rules indispensable RUs)	0.0	0.1	0.1	0.0	1.1	0.4	1.1	0.7	1.1	0.4	1.0	0.7	1.2	0.4	1.0	0.7
Net costs (-) or net benefit (+)	**-31.4**	**-3.0**	**-2.9**	**-3.3**	**-20.4**	**0.0**	**5.3**	**2.4**	**-20.8**	**-0.2**	**4.1**	**2.4**	**-73.2**	**-54.2**	**4.7**	**2.4**

Source: Ricardo et al. (2026), Impact assessment support study

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Table 121: One-off costs for MDMS platforms in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Adjustment costs	**31.0**	**0.7**	**0.4**	**0.0**	**31.0**	**1.5**	**2.4**	**0.0**	**31.4**	**1.5**	**2.0**	**0.0**	**85.1**	**55.6**	**2.2**	**0.0**
PM1 (Neutral display)	4.0	0.1	0.1	0.0	4.0	0.2	0.3	0.0	4.0	0.2	0.3	0.0	4.0	0.2	0.3	0.0
PM2 (Equal care for data)	3.0	0.1	0.0	0.0	3.0	0.1	0.2	0.0	3.0	0.2	0.2	0.0	3.0	0.1	0.2	0.0
PM3 (Marketing and booking data sharing)	2.3	0.0	0.0	0.0	2.3	0.1	0.2	0.0	2.3	0.1	0.1	0.0	2.3	0.1	0.2	0.0
PM7 (Data for mobility management)	17.6	0.4	0.2	0.0	17.6	0.8	1.3	0.0	17.6	0.9	1.1	0.0	17.6	0.8	1.2	0.0
PM8 (GHG emission data)	4.1	0.1	0.1	0.0	4.1	0.2	0.3	0.0	4.1	0.2	0.3	0.0	4.1	0.2	0.3	0.0
PM14 (Obligation to host)									0.4	0.0	0.0	0.0				
PM15 (Obligation to unbundle)													54.1	54.1	0.0	0.0
Administrative costs	**0.5**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**
PM10 (Designation of indispensable MDMS and RUs)	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Total one-off costs	**31.4**	**0.7**	**0.4**	**0.0**	**31.4**	**1.5**	**2.4**	**0.0**	**31.8**	**1.5**	**2.0**	**0.0**	**85.6**	**55.6**	**2.2**	**0.0**

Source: Ricardo et al. (2026), Impact assessment support study

3.4.2. Transport operators

Table 122: One-off costs and costs savings for transport operators in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Adjustment costs	**0.0**	**0.0**	**0.0**	**0.0**	**13.4**	**2.3**	**4.0**	**0.0**	**13.4**	**2.3**	**3.3**	**0.0**	**4.6**	**5.9**	**18.1**	**15.9**
PM13 (Obligation to share)					13.4	2.3	4.0	0.0	13.4	2.3	3.3	0.0	4.6	5.9	18.1	15.9
Administrative costs	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
PM10 (Designation of indispensable MDMS and RUs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adjustment cost savings	**0.0**	**0.8**	**1.2**	**0.4**	**11.0**	**4.7**	**13.2**	**7.8**	**11.1**	**4.6**	**11.3**	**7.8**	**12.3**	**4.6**	**12.3**	**7.8**
PM11 (Commercial agreement rules indispensable MDMS)	0.0	0.7	1.1	0.4	9.9	4.2	12.1	7.1	9.9	4.2	10.4	7.1	11.2	4.2	11.2	7.1

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	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
PM12 (Commercial agreement rules indispensable RUs)	0.0	0.1	0.1	0.0	1.1	0.4	1.1	0.7	1.1	0.4	1.0	0.7	1.2	0.4	1.0	0.7
Net costs (-) or net benefit (+)	**0.0**	**0.8**	**1.2**	**0.4**	**-2.3**	**2.4**	**9.2**	**7.8**	**-2.3**	**2.2**	**8.0**	**7.8**	**7.7**	**-1.3**	**-5.9**	**-8.1**

Source: Ricardo et al. (2026), Impact assessment support study

Table 123: One-off costs for transport operators in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Adjustment costs	**0.0**	**0.0**	**0.0**	**0.0**	**13.4**	**2.3**	**4.0**	**0.0**	**13.4**	**2.3**	**3.3**	**0.0**	**4.6**	**5.9**	**18.1**	**15.9**
PM13 (Obligation to share)					13.4	2.3	4.0	0.0	13.4	2.3	3.3	0.0	4.6	5.9	18.1	15.9
Administrative costs	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
PM10 (Designation of indispensable MDMS and RUs)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total one-off costs	**0.0**	**0.0**	**0.0**	**0.0**	**13.4**	**2.3**	**4.0**	**0.0**	**13.4**	**2.3**	**3.3**	**0.0**	**4.6**	**5.9**	**18.1**	**15.9**

Source: Ricardo et al. (2026), Impact assessment support study

3.4.3. National authorities

Table 124: One-off and recurrent costs for national authorities in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Enforcement cost	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**
PM6 (Enforcement authority)	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Administrative costs	**4.6**	**1.5**	**1.5**	**1.5**	**4.6**	**1.5**	**1.5**	**1.5**	**4.6**	**1.5**	**1.5**	**1.5**	**4.6**	**1.5**	**1.5**	**1.5**
PM6 (Enforcement authority)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
PM10 (Designation of indispensable MDMS and RUs)	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0
Net costs	**10.7**	**7.6**	**7.6**	**7.6**	**10.7**	**7.6**	**7.6**	**7.6**	**10.7**	**7.6**	**7.6**	**7.6**	**10.7**	**7.6**	**7.6**	**7.6**

Source: Ricardo et al. (2026), Impact assessment support study

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Table 125: One-off costs for national authorities in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Administrative costs	**3.1**	**0.0**	**0.0**	**0.0**	**3.1**	**0.0**	**0.0**	**0.0**	**3.1**	**0.0**	**0.0**	**0.0**	**3.1**	**0.0**	**0.0**	**0.0**
PM10 (Designation of indispensable MDMS and RUs)	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0
Total one-off costs	**3.1**	**0.0**	**0.0**	**0.0**	**3.1**	**0.0**	**0.0**	**0.0**	**3.1**	**0.0**	**0.0**	**0.0**	**3.1**	**0.0**	**0.0**	**0.0**

Source: Ricardo et al. (2026), Impact assessment support study

3.4.4. European Commission

Table 126: Recurrent adjustment costs for the European Commission in the POs relative to the baseline (EU27), in 2028, 2030, 2040 and 2050, in million EUR (2024 prices)

	PO1				PO2				PO3				PO4			
	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050	2028	2030	2040	2050
Adjustment costs	**0.27**	**0.37**	**0.37**	**0.37**	**0.27**	**0.37**	**0.37**	**0.37**	**0.27**	**0.37**	**0.37**	**0.37**	**0.27**	**0.37**	**0.37**	**0.37**
PM6 (Enforcement authority)	0.03	0.13	0.13	0.13	0.03	0.13	0.13	0.13	0.03	0.13	0.13	0.13	0.03	0.13	0.13	0.13
PM10 (Designation of indispensable MDMS and RUs)	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Net costs	**0.27**	**0.37**	**0.37**	**0.37**	**0.27**	**0.37**	**0.37**	**0.37**	**0.27**	**0.37**	**0.37**	**0.37**	**0.27**	**0.37**	**0.37**	**0.37**

Source: Ricardo et al. (2026), Impact assessment support study

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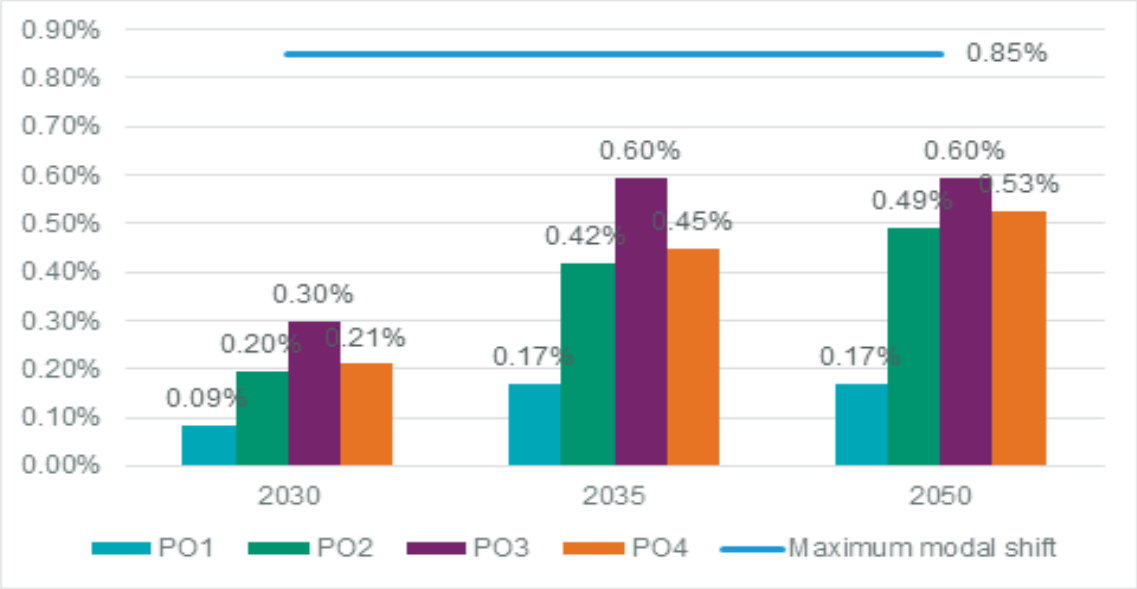
4. SENSITIVITY ANALYSIS

To acknowledge the uncertainty and test the robustness of the results, sensitivity analysis has been performed: (i) on the potential modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms, and (ii) on the thresholds to identify B2C MDMS platforms and RUs with SMP.

Sensitivity analysis on the potential modal shift. A 'low modal shift case' has been assessed, assuming half of the potential identified for modal shift due to the ability to see all offerings on MDMS platforms and the ability to book all visible travel options on MDMS platforms. Therefore, the maximum potential modal shift in the MPA module has been assumed at 0.85%. The progress towards the maximum in the policy options is shown in the figure below based on the MPA module results.

Figure 15: Average modal shift in each policy option relative to the maximum potential modal shift in the 'low modal shift' case



Source: Ricardo et al. (2026), Impact assessment support study

The impacts on transport activity due to the changes in modal shift and travel time in the policy options in the 'low modal shift' case, based on ASTRA model results, are shown in the table below.

Table 127: Impact on transport activity in passenger-kilometres at EU level (percentage change relative to the baseline) in the 'low modal shift' case

		% change to baseline			
		PO1	**PO2**	**PO3**	**PO4**
Car	2030	-0.1%	-0.2%	-0.2%	-0.2%
	2040	-0.2%	-0.4%	-0.6%	-0.5%
	2050	-0.2%	-0.5%	-0.7%	-0.5%
Coach	2030	0.4%	0.7%	0.9%	0.7%
	2040	0.9%	1.5%	1.9%	1.6%
	2050	0.9%	1.5%	1.9%	1.6%
Rail	2030	0.6%	1.1%	1.5%	1.2%
	2040	1.0%	2.1%	2.8%	2.2%

		% change to baseline			
		PO1	PO2	PO3	PO4
	2050	1.0%	2.2%	2.8%	2.4%
Air	2030	0.0%	-0.1%	-0.1%	-0.1%
	2040	-0.2%	-0.4%	-0.5%	-0.4%
	2050	-0.2%	-0.6%	-0.6%	-0.6%
Waterborne	2030	0.0%	0.0%	0.0%	0.0%
	2040	0.0%	0.0%	0.0%	0.0%
	2050	0.0%	0.0%	0.0%	0.0%

Source: Ricardo et al. (2026), Impact assessment support study

The impacts on external costs savings and efficiency (including external costs savings) are further compared to the 'base case' presented in section 6. The table below shows that this assumption has important impacts on the external costs savings in the 'low modal shift case' relative to the base case. Total external costs savings, expressed as present value over 2028-2050 relative to the baseline, are 34% lower in the 'low modal shift case' relative to the base case in PO1, 37% lower in PO2, 39% lower in PO3 and 37% lower in PO4.

Table 128: External costs savings in the 'low modal shift' case and base case in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	PO1	PO2	PO3	PO4
Base case				
Total external costs savings (in million EUR), of which:	**12,685**	**25,820**	**37,329**	**28,644**
CO_2 emissions	2,367	4,696	6,778	5,176
Air pollutant emissions	218	455	670	502
Fatalities and injuries	7,606	14,807	21,297	16,470
Road congestion	1,758	4,352	6,438	4,833
Noise emissions	735	1,509	2,146	1,663
Low modal shift case				
Total external costs savings (in million EUR), of which:	**8,379**	**16,255**	**22,698**	**17,949**
CO_2 emissions	1,566	2,975	4,137	3,264
Air pollutant emissions	139	274	389	301
Fatalities and injuries	4,928	9,421	13,087	10,421
Road congestion	1,252	2,616	3,761	2,902
Noise emissions	495	969	1,324	1,061
% change 'low modal shift' case relative to the base case				
Total external costs savings, of which:	-34%	-37%	-39%	-37%
CO_2 emissions	-34%	-37%	-39%	-37%
Air pollutant emissions	-37%	-40%	-42%	-40%
Fatalities and injuries	-35%	-36%	-39%	-37%
Road congestion	-29%	-40%	-42%	-40%
Noise emissions	-33%	-36%	-38%	-36%

Source: Ricardo et al. (2026), Impact assessment support study

Although this assumption has important impacts on the total external costs savings, it is expected to have no impact on other adjustment costs savings for MDMS platforms and transport operators and on the total costs. The table below presents the impacts on total benefits (including external costs savings), total costs, net benefits and benefits to costs ratio by policy option in the base case and 'low modal shift case'. It shows that

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all policy options are still expected to result in net benefits in the 'low modal shift' case considered. It also shows that the ranking of the policy options is not expected to change in the 'low modal shift' case relative to the base case estimates.

Table 129: Summary of costs and benefits of policy options, including external costs savings, in the 'low modal shift case' and base case, expressed as present value over 2028-2050 compared to the baseline (in million EUR, 2024 prices)

	PO1	PO2	PO3	PO4
Base case				
Total costs	234	317	306	469
Total benefits, of which:	12,711	26,118	37,597	28,930
Adjustment costs savings for MDMS platforms and transport operators	26	298	268	285
External costs savings	12,685	25,820	37,329	28,644
Net benefits	12,477	25,801	37,291	28,461
Benefits to costs ratio	54	82	123	62
Low modal shift case				
Total costs	234	317	306	469
Total benefits, of which:	8,405	16,553	22,966	18,234
Adjustment costs savings for MDMS platforms and transport operators	26	298	268	285
External costs savings	8,379	16,255	22,698	17,949
Net benefits	8,171	16,236	22,660	17,766
Benefits to costs ratio	36	52	75	39

Source: Ricardo et al. (2026), Impact assessment support study

Sensitivity analysis on the thresholds to identify B2C MDMS platforms and RUs with SMP. A 'low SMP threshold' case has been assessed, assuming that the EU level SMP threshold is lowered from 10% to 5%. This would bring three additional OTAs into scope as indispensable MDMS (Etraveli group, Booking.com, Trip.com Group). The impacts on costs and costs savings are further compared to the base case presented in section 6.

The 'low SMP threshold' case results in three more platforms needing to submit information to national authorities (PM10), leading to some additional administrative costs (EUR 0.8 million one-off administrative costs in the 'low SMP threshold' case in all POs relative to EUR 0.5 million in the base case). It also requires more platforms to comply with commercial agreement rules for indispensable MDMS (PM11), leading to additional cost savings for MDMS platforms and transport operators relative to the base case (3% higher adjustment costs savings in PO1 and 6% higher adjustment costs savings in PO2, PO3 and PO4 relative to the base case, expressed as present value over 2028-2050) as shown in the table below.

Table 130: Administrative costs and adjustment costs savings for MDMS platforms and transport operators due to PM10 and PM11 in the 'low SMP threshold' case and base case in the POs relative to the baseline (EU27), expressed as present value over 2028-2050, in million EUR (2024 prices)

	PO1	PO2	PO3	PO4
Base case				
MDMS platforms				
Administrative costs for the designation of indispensable MDMS and Rus (PM10)	0.5	0.5	0.5	0.5
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.0	136.1	122.3	130.4
Transport operators				
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.0	136.1	122.3	130.4
Low SMP threshold case				

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	PO1	PO2	PO3	PO4
MDMS platforms				
Administrative costs for the designation of indispensable MDMS and Rus (PM10)	0.8	0.8	0.8	0.8
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.4	144.2	129.8	138.3
Transport operators				
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	12.4	144.2	129.8	138.3
% change 'low SMP threshold case' relative to the base case				
MDMS platforms				
Administrative costs for the designation of indispensable MDMS and Rus (PM10)	75%	75%	75%	75%
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	3%	6%	6%	6%
Transport operators				
Adjustment cost savings for commercial agreement rules for indispensable MDMS (PM11)	3%	6%	6%	6%

Source: Ricardo et al. (2026), Impact assessment support study

The table below shows the impacts on total benefits (including external costs savings), total costs, net benefits and benefits to costs ratio by policy option in the base case and 'low SMP threshold' case. It shows that all policy options are still expected to result in net benefits in the 'low SMP threshold' case considered. It also shows that the ranking of the policy options is not expected to change in the 'low SMP threshold' case relative to the base case estimates.

Table 131: Summary of costs and benefits of policy options, including external costs savings, in the 'low SMP threshold' case and base case, expressed as present value over 2028-2050 compared to the baseline (in million EUR, 2024 prices)

	PO1	PO2	PO3	PO4
Base case				
Total costs	234.1	317.0	305.6	468.6
Total benefits	12,710.7	26,117.9	37,596.7	28,929.8
Net benefits	12,476.7	25,800.9	37,291.1	28,461.3
Benefits to costs ratio	54.3	82.4	123.0	61.7
Low SMP threshold case				
Total costs	234.4	317.3	306.0	468.9
Total benefits	12,711.5	26,134.2	37,611.9	28,945.6
Net benefits	12,477.0	25,816.9	37,305.9	28,476.6
Benefits to costs ratio	54.2	82.4	122.9	61.7

Source: Ricardo et al. (2026), Impact assessment support study

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ANNEX 5: COMPETITIVENESS CHECK

1. Overview of impacts on competitiveness

Dimensions of Competitiveness	Impact of the initiative (++ / + / 0 / - / -- / n.a.)	References to sub-sections of the main report or annexes
Cost and price competitiveness	+	Sections 6.1.1, 6.1.2 and 6.1.7
International competitiveness	0	Section 6.1.7
Capacity to innovate	+	Section 6.1.9
SME competitiveness	+	Section 6.1.5, 6.1.7 and Annex 6

2. Synthetic assessment

Cost and price competitiveness

For MDMS platforms, as explained in section 6.1.1, the preferred policy option (PO3) is expected to lead to adjustment costs and some limited administrative costs. Total costs, expressed as present value over 2028-2050 relative to the baseline, are estimated at EUR 122.7 million. At the same time, the streamlined negotiation processes (PM11 and PM12) deliver significant adjustment costs savings (EUR 134 million) in synergy with other measures that increase the number of new and renegotiated commercial agreements that benefit of the streamlined processes. Overall, PO3 leads to net benefits of EUR 11.3 million, expressed as present value over 2028-2050 relative to the baseline.

For transport operators, as explained in section 6.1.2, PO3 is expected to lead to adjustment costs related to the obligation to share and to very limited administrative costs for the designation of indispensable RUs. Total costs, expressed as present value over 2028-2050 relative to the baseline, are estimated at EUR 42.2 million. The streamlined negotiation processes (PM11 and PM12) deliver adjustment costs savings that outweigh the costs (EUR 134 million). Net benefits for transport operators, expressed as present value over 2028-2050 relative to the baseline, are estimated at EUR 91.8 million in PO3.

By reducing search and booking frictions and improving the visibility of transport offers, the preferred policy option enhances the efficiency of the rail and multimodal transport sectors, strengthening the competitive position of rail and coach services within the multimodal passenger transport market. Improved integration of rail services in MDMS platforms increases the attractiveness of rail-based itineraries relative to car-only or aviation trips.

PO3 results in an increase in rail and coach activity relative to the baseline, reflecting improved supply-demand matching and reduced transaction costs. The entire economy is likely to benefit from these developments since transport represents a significant share of household expenditure and is a critical input for many economic sectors, notably tourism. A better functioning of the transport sector would free resources for additional consumption and investment. This might result in knock-on effects throughout the entire economy in the long term, leveraging the initial impact on the transport sector.

International competitiveness

The preferred policy option equally applies to EU and non-EU platforms when operating within the EU market and does not differentiate by nationality. It therefore does not introduce trade distortions. The impact on international competitiveness is expected to be neutral. The economic effects are confined to improving efficiency and performance within the EU passenger transport market.

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Capacity to innovate

The capacity of MDMS platforms to innovate and develop more integrated, user-friendly, and competitive solutions depends on their ability to distribute a wide offer of services for a sufficiently large number of transport operators. The preferred option is expected to have the biggest impact on innovation as it best addresses the key barriers of access to tickets and creates greater transparency and equitable conditions on all MDMS platforms. As platforms can no longer rely on preferential access to ticket offers, they are expected to compete more vigorously on aspects like completeness of ticketing offer, ease of search and user experience, customer care, and additional services. This also creates visibility for and incentivises new entrants in the rail services market, enabling them to innovate and compete with establish railway undertakings.

SME competitiveness

Adjustment costs savings for SME MDMS platforms. SME MDMS platforms will benefit from adjustment cost savings linked to the introduction of commercial agreement rules (PM11 and PM12). The costs savings are estimated at EUR 90.5 million, expressed as present value over 2028-2050, due to the synergies with PM13 (obligation to share) and PM14 (obligation to host) that lead to higher number of new and renegotiated commercial agreements relative to the baseline.

Adjustment costs savings for SME transport operators. As for SME MDMS platforms, SME transport operators will also benefit from the introduction of commercial agreement rules for indispensable MDMS platforms (PM11) and indispensable RUs (PM12). The adjustment costs savings for SME transport operators, expressed as present value over 2028-2050 relative to the baseline, are estimates at EUR 96.1 million.

SMEs would also benefit from better market conditions: creating a level playing field for all stakeholders could be particularly beneficial for small businesses or start-ups. New entrant SMEs in the rail transport market would particularly benefit from the obligation for indispensable RU platforms to enter into commercial agreement with willing RUs (PM14). New entrant RUs face the problem of how to establish their brand and typically must resort to costly advertising campaigns, which can be prohibitive for SMEs. PM14 would allow them to benefit from indispensable RU platforms' brand visibility and reach immediately the very high share of customers that use those platforms. In addition, the prohibition of restrictive contractual clauses by indispensable RUs and indispensable MDMS platforms and the introduction of fairer distribution fee principles (PM11 and PM12) would facilitate agreements between platforms and operators, directly targeting gatekeeping behaviour, curbing anti-competitive practices, and enhancing transparency and fairness. This would therefore greatly support smaller MDMSs and operators in concluding contractual agreements with players benefiting from a strategic position in the market.

3. Competitive position of the most affected sectors

The passenger rail sector will be most affected by the present initiative. The table below presents the value added for the EU economy[356], including for the EU transport and storage sector between 2021 and 2023. The passenger rail transport sector[357] provides around 0.3% of the total value added of all industry, construction and market services and around 5% of the EU value added of the transport and storage sector (5.5% in 2023).

Table 132:Value added for the EU economy, including for the EU transport and storage sector, between 2021 and 2023 (EUR million, in current prices)

	2021	2022	2023
Industry, construction and market services [B-S_X_O_S94]*	9,342,087	10,061,373	10,459,844
Transportation and storage [H]	527,710	642,710	597,797
Land transport and transport via pipelines [H49]	226,316	257,300	264,687
Passenger rail transport, interurban [H491]	26,500**	30,793	32,961

[356] Except public administration and defence, compulsory social security, activities of membership organisations.
[357] The rail supply industry is not covered as it is outside of the scope of this initiative.

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	2021	2022	2023
Other passenger land transport [H493]	53,619	63,548	64,410
Water transport [H50]	NA	NA	NA
Sea and coastal passenger water transport [H501]	3,555	5,811	8,379
Inland waterway water transport [H503]	776	1,200**	1,485
Air transport [H51]	18,040	34,591	38,782
Passenger air transport [H511]	9,713	27,360	35,500**

*Source: Eurostat. Enterprises by detailed NACE Rev. 2 activity and special aggregates) [sbs_sc_ovw]; *Except public administration and defence, compulsory social security, activities of membership organisations; **Data is estimated. Notes: Data for NACE activity H50 is confidential. Data for NACE activity 493 includes both urban and interurban.*

The number of persons employed in the EU, including in the EU transport and storage sector, between 2021 and 2024 is presented in the table below. Passenger rail transport sector represents around 4% of the total persons employed in the transport and storage sector (4.1% in 2024) and around 0.3% of the total persons employed in the EU economy.

Table 133: Persons employed in the EU economy, including for the EU transport and storage sector, between 2021 and 2024

	2021	2022	2023	2024[p]
Industry, construction and market services [B-S_X_O_S94]*	156,098,847	160,424,218	162,151,763	164,201,284
Transportation and storage [H]	10,182,182	10,378,086	10,312,819	10,428,331
Land transport and transport via pipelines [H49]	5,665,572	5,786,379	5,740,560	5,845,347
Passenger rail transport, interurban [H491]	425,873	410,759	413,384	429,157
Other passenger land transport [H493]	1,684,537	1,780,962	1,720,000**	1,804,786
Water transport [H50]	182,034	192,036	209,102	208,821
Sea and coastal passenger water transport [H501]	73,292	79,447	84,616	87,445
Inland waterway water transport [H503]	18,436	20,049	23,713	24,300
Air transport [H51]	281,162	281,000**	301,492	300,000
Passenger air transport [H511]	254,865	256,285	276,066	NA

*Source: Eurostat. Enterprises by detailed NACE Rev. 2 activity and special aggregates) [sbs_sc_ovw]; *Except public administration and defence, compulsory social security, activities of membership organisations; ** Data is estimated; [p]data is provisional. Notes: Data for NACE activity H5111 is confidential. Data for NACE activity H501 includes urban and interurban.*

The preferred policy option directly addresses some of the key issues hampering the rail sector's competitiveness. As explained in section 2.2.4, the key position of incumbent railway undertakings on both the transport services market and on the ticket distribution market gives them the opportunity to block competitors entering either of these markets. PO3 addresses in a targeted way this double gatekeeper position.

Firstly, PO3 provide independent ticket platforms the opportunity to access rail tickets and rail fares that were either inaccessible for them or only against unattractive conditions. This allows them to compete with the vertically integrated ticketing platforms of incumbent railway undertakings, providing consumers a wider choice of online places where they can buy the most convenient rail tickets at the best fares. Greater competition among platforms will also apply downward pressure on the platforms' fees. This will increase customers' chances of finding the product that best matches their needs in terms of connections, timing and price, thereby increasing the attractiveness of rail. For consumers, the increased availability of tickets and tariffs in a single place, or rather, several single places, also implies a reduction in transaction costs compared to the current situation, as they will not have to consult multiple websites to find comparable offers or to combine attractive tickets from multiple websites in case of a multi-operator trip.

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Secondly, PO3 provide competing RU the opportunity to access dominant ticket distribution channels owned by incumbent railway undertakings, increasing their visibility to consumers. This will not only have the effect of providing to new-entrant railway undertakings access to a much larger customer base, potentially reducing their need for advertising expenditure, but will also allow direct comparison of offers and prices, thereby increasing significantly competition in the passenger railway services market. In addition, access to investors' money for new-entrant railway undertakings will improve, as they can now present an increased likelihood of steady revenues, having access to dominant sales channels. Increased competition (and even anticipated competition) is expected to lead to lower ticket prices, increased service frequencies and increased innovation, all benefitting the consumer. This in turn significantly improves the competitive position of rail travel vis-à-vis other modes of transport, as shown by shifts in modal shares on high-speed connections where competition was introduced. Furthermore, increased competitive pressure is expected to lead to efficiency gains in the organisation and activities of incumbent operators that enjoyed decades of monopoly in the rail sector.

ANNEX 6: SME CHECK

Overview of impacts on SMEs

Relevance for SMEs
The initiatives subject to this impact assessment are considered relevant for SMEs, although the SMEs are only indirectly affected. The initiatives have not been selected in the SME filter[358].

(1) Identification of affected businesses and assessment of relevance
Are SMEs directly affected? In which sectors?
No. SMEs are out of scope of the initiatives, hence no requirement outlined in the preferred policy option affects directly SMEs. In rail, for requirements that fall upon railway undertakings with significant market presence and on their ticketing platforms, the relevant threshold that is applied (50% of a domestic rail services market to qualify as having significant market presence) is such, that any currently existing company meeting the threshold would be significant bigger than an SME. That a railway undertaking SME reaches this threshold in the future is also very unlikely as only a company with a significant turnover could hold at least 50% of the domestic railway market even in small EU countries.
Estimated number of directly affected SMEs
-
Estimated number of employees in directly affected SMEs
-
Are SMEs indirectly affected? In which sectors? What is the estimated number of indirectly affected SMEs and employees? Yes, SMEs are expected to be indirectly affected by the preferred policy option. Sectors affected: SME MDMS platforms and SME transport operators are expected to be indirectly affected by the preferred policy option. Estimated number of most affected SMEs: *For transport operators*, across the EU, 3,211 coach operators, 9 RUs and 518 maritime transport operators are SMEs (see section 2.2.3 of Annex 4). No air carriers qualify as SME. In the preferred policy option, all SME transport operators (3,738) are indirectly affected by the commercial agreement rules for indispensable MDMS (PM11) and 9 SME RUs by the commercial agreement rules for indispensable RU (PM12). *For SME MDMS platforms*, desk research on both B2C and B2B markets in the context of the impact assessment support study suggests that 189 SME MDMS platforms are active throughout the EU. All of them are expected to be indirectly affected by the commercial agreement rules for indispensable RUs (PM12) and 72 of them in 2028 by the commercial agreement rules for indispensable MDMS (PM11).

(2) Consultation of SME stakeholders
How has the input from the SME community been taken into consideration?

[358] https://ec.europa.eu/docsroom/documents/63274

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Stakeholder consultations gathered inputs of small businesses indirectly affected by the initiatives (SME transport operators, but also of SME MDMS platforms (both in the B2C and B2B sector)). Their input has been gathered through interviews, the targeted survey and the OPC.

Are SMEs' views different from those of large businesses?

Yes, the views of SMEs did vary compared to those of large businesses, viewing the identified problems as more significant and the policy measures as more effective than when looking at the broader respondent pool in the targeted survey, interviews, and OPC.

In the OPC, SMEs agreed more to the fact that *Fair access for all operators to relevant multimodal digital mobility services is not granted.* Across all respondents, the average level of agreement was between somewhat agree and fully agree (4.27)[359], indicating that the majority of respondents perceive that fair access is not fully ensured. SMEs rated this even higher, closer to fully agree (4.68), suggesting that **SME operators perceive this issue as an even more significant limitation compared to the broader respondent pool**.

Additionally, the OPC outlined how SMEs favoured more binding rules than other respondents. When answering whether they believed that *the initiatives objective could be achieved by non-binding guidance or recommendations*, the average level of agreement was between neutral and somewhat agree (3.58), indicating a moderate level of support for non-binding guidance as a way to achieve the initiative's objectives. SMEs, however, rated this lower, closer to somewhat agree (3.02), showing that **smaller players see non-binding guidance as a less effective approach compared with the broader respondent pool**.

In rail, the **views of new entrant railway undertakings differed clearly from those of indispensable RUs. The former expressed clear support for the initiative, while the latter clearly opposed the measures.** The ability for new entrants to access incumbents' sales channels was perceived to be of "paramount importance" for a SME rail entrant interviewed. In particular, an SME RU argued during the interview that incumbent sales channels should be regarded as public property, accessible to any company. In this sense PM13, PM14 and PM15 were particularly well received, as ensuring the availability of their offers on key rail platforms. The o*bligation for indispensable RUs to share their offer to requesting MDMS platforms* (PM13) is positively perceived, as it would "enable third party platforms to offer complete journeys for customers who want to use (their) trains as part of their journeys"[360]. The *obligation for indispensable RUs to enter into commercial agreement with willing RUs to enable the sales of tickets* (PM14) was believed by All Rail to potentially "doubling the modal shift of rail for long-distance travels". The *requirement for indispensable RU platforms to unbundle from their parent company* (PM15) was seen as a "game changer" by the new entrant industry association All Rail (which includes SMEs), securing new entrants' visibility on key platforms and supported by all new entrant rail operators surveyed. On the contrary, indispensable RUs were strongly opposed to these measures, perceiving them as ineffective, interfering with their commercial freedom. In particular PM13, PM14 and PM15 were perceived as too interventionist, with 4 out of 5 indispensable RUs surveyed perceiving each of these PMs ineffective, potentially creating administrative burden and potentially increasing ticket price and increasing market concentration.

For MDMS platforms, the views of SMEs compared to non-SME MDMS platforms did not substantially vary, although SMEs tend to agree to a larger extent with the problems and policy measures. During the targeted survey and interviews, **both outlined the difficulties in concluding commercial agreements on fair terms with large carriers** and **welcomed the introduction of principles to ensure fair commercial agreements**. In that sense, an SME MSE outlined in an interview the need to "promote cooperation

[359] A score of 5 represents that all respondents have fully agreed, a score of 4 that respondents on average have indicated somewhat agree, a score of 3 indicates on average neutral views.
[360] Statement formulated by an SME new entrant RU during their interview.

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between actors". An SME CRS outlined how "creating standardized commercial agreements is crucial to improving MDMS functionality" while 2 MDMS industry associations representing large MDMSs (ADN Mobilités and EUTT) outlined that implementing explicit FRAND principles applied to transport operators would be beneficial to enable transparency and efficiency within the ecosystem. However, it must be noted that large MDMS platforms tend to question the effectiveness of imposing principles on distribution fees and rules forbidding highly restrictive clauses on indispensable MDMS platforms (PM11), as they claim they would have no incentive to block access to their platform. **SME MDMS** did not make such allegations in the survey and seem **more attached to the introduction of fair principles** overall. In the OPC, this aspect was ranked higher than average by SMEs, indicating that in their view this is a more important priority than for the broader respondent group.

(3) Assessment of impacts on SMEs[361]

What are the estimated direct costs for SMEs of the preferred policy option?

Qualitative assessment

-

Quantitative assessment

There are no direct impacts associated to the preferred policy option.

What are the estimated direct benefits/cost savings for SMEs of the preferred policy option?

Qualitative assessment

There are no direct impacts associated to the preferred policy option.

Quantitative assessment

There are no direct impacts associated to the preferred policy option.

What are the indirect impacts of this initiative on SMEs?

While not directly affected by the preferred policy option (PO3), SME MDMS platforms and SME transport operators will indirectly benefit from the measures implemented. In this sense, an MDMS platform stated in the targeted survey that they *"do not expect these measures to increase costs for SMEs. In fact, especially the measures aimed to support independent MDMS will increase revenue opportunities for SMEs in all sectors involved".*

As described in section 6.1.5, PO3 will allow SME transport operators and SME MDMS platforms to conclude commercial agreements on fair terms with indispensable MDMS platforms (PM11) and indispensable RUs (PM12), streamlining negotiation processes. Thus, the adjustment costs savings in PO3 are estimated at **EUR 90.5 million for SME MDMS platforms and EUR 96.1 million for SME transport operators**, expressed as present value over 2028-2050 relative to the baseline**.** SME MDMS platform Dohop stated in an interview that *"SMEs are typically the entities that are currently suffering from the imbalance of power"* and would therefore directly benefit from these measures.

(4) Minimising negative impacts on SMEs

Are SMEs disproportionately affected compared to large companies?

SMEs are out of scope of PO3 and they only indirectly benefit of costs savings.

If yes, are there any specific subgroups of SMEs more exposed than others?

[361] The costs and benefits data in this annex are consistent with the data in Annex 3.

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No
Have mitigating measures been included in the preferred option/proposal?
SMEs are out of scope of PO3 and they only indirectly benefit of costs savings.

Contribution to the 35% burden reduction target for SMEs
Are there any administrative cost savings relevant for the 35% burden reduction target for SMEs?
No, there are no administrative costs savings or administrative costs for SMEs.

ANNEX 7: DISCARDED POLICY MEASURES

During the impact assessment process, a number of possible policy measures have been discussed with the key stakeholders and finally discarded, as explained below.

Table 134: Discarded policy measures and the reason for discarding them

Discarded policy measure	Short description	Reason for discarding
Remove the neutral display requirement for CRS	Remove the obligation coming from Article 5 of the CRS Code of Conduct, obliging CRS to follow certain display principles.	This obligation is still relevant since it helps enhance comparability and provides end-users with better informed choices. Importantly, this measure helps ensure a level playing field to different transport operators on CRS.
Remove requirement ensuring that operators provide accurate data	Remove the obligation coming from Article 9 of the CRS Code of Conduct obliging transport operators to provide MDMS platforms with data that is correct, accurate and complete. This obligation is linked to the neutral display obligation, as inaccurate data would prevent MDMS platforms from offering an unbiased display to subscribers (travel agents and TMCs) and end-users.	This obligation is still relevant to ensure that MDMS can comply with the neutral display requirement, in particular given the extension of the neutral display to include additional ranking criteria (e.g. GHG emissions).
Remove requirements for fair treatment of subscribers	This measure would remove the protections in favour of subscribers (travel agents and travel management companies) in commercial relationship with CRSs, also with reference to MIDT data. MIDT data consist of any marketing, booking and sales data held by CRS providers. These data may be made available by CRS providers provided that such data are offered with equal timeliness and on a non-discriminatory basis to all participating operators.	This obligation is still relevant for subscribers protecting them from potential unfair and unjustified conditions being imposed by CRSs and using the MIDT data to influence travel agents. carriers, including parent carriers.
Remove information on banned airlines and rules on equivalent treatment of EU airlines (for all B2B MDMS operating in 3rd countries)	This measure would remove the obligations to inform about airlines subject to an operating ban and to ensure equivalent treatment of EU airlines when the MDMS operates in third countries.	The requirements that MDMS provide information on airlines subject to an operating ban within the EU and ensure equivalent treatment of EU airlines when the MDMS operates in third countries, are still relevant. The first rule ensures that ticket sellers can comply with the obligation to provide this information to passengers as requested by Regulation (EC) No 2111/2005. The second rule allows equivalent treatment of EU carriers by third country CRSs. If a third country CRS does not treat equally an EU carrier the Commission can ask EU CRSs to treat in an equivalent manner non-EU carriers.
Remove the enforcement rules of the Regulation on CRS. This is subject to all other competition-related provisions being repealed	This measure would remove procedures ensuring that the obligations imposed by CRS Code of Conduct (including protections for subscribers and transport operators) are properly enforced.	This measure has been discarded, as it remains relevant to retain certain enforcement powers for the MDMS initiative overall. These powers will be delegated to national enforcement authorities and coordinated at the EU level through a newly established enforcement network, ensuring consistent enforcement across the EU.

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Discarded policy measure	Short description	Reason for discarding
Obligation for the EC to settle disputes between parties.	Obligation for the Commission to directly settle disputes between parties, which could arise from PM11 to 16.	This measure has been discarded because ensuring enforcement at the EU level would be less cost-efficient. Many national enforcement authorities already exist and could undertake these tasks, particularly rail regulators, competition authorities and those established to enforce provisions under the Data Act.
Reporting obligation for operators and MDMS to assess their indispensability	Obligation for operators and MDMS to report on their market share.	This measure has been discarded as a notification mechanism, as foreseen in PM10is more efficient for designation authorities, for RUs and for MDMS platforms. Beyond notification reporting obligation is also foreseen and taken into account in PM10 in the context of the RMMS.
Remove the ban on unfair conditions in CRS-airline contracts which restrict airline's ability to use of alternative distribution systems	Removes the provision coming from Article 3 of the CRS Code of Conduct, which protects transport operators from unfair and unjustified conditions that are imposed when they enter commercial agreements with CRSs.	This measure does not sufficiently address the specific objectives and in particular SO2. This provision is still relevant to address the imbalance between parties, in particular relevant for small carriers, and ensure effective and fair competition between different sized carriers when they access and use CRSs and other MDMS with SMP.
Applies to all MDMS providers: obligation to enter into commercial agreements with willing transport operators (active within the geographical and modal scope covered by the MDMS) to enable re-linking and/or the sale of tickets	An obligation on all MDMS providers (regardless of their market presence) to enter into commercial agreements with willing transport operators to enable to the sale of tickets.	This measure is not considered proportionate as it imposes an obligation on all MDMS platforms, regardless of their market presence or mode. The PM14 offers a more targeted approach, focussing on indispensable RU platforms as we have identified that the refusal to integrate lies specifically with those platforms.
Support voluntary commitment of MDMS to align with Sustainable Urban Mobility Plans and include active modes of transport (walking and cycling) for the first/last leg of a trip (guidelines to be developed by a Commission expert group)	Support MDMS to align with SUMPs via the development of guidelines.	This measure is not in scope of the initiative, which focuses on platforms selling regional and long-distance transport services.
MDMS will be obliged to align with Sustainable Urban Mobility Plans and include active modes of transport (walking and cycling) in search results for first/last leg of a trip and connections	Obligation for MDMS to align with SUMPs	This measure is not in scope of the initiative, which focuses on platforms selling regional and long-distance transport services.
Support MDMS to	Support MDMS to share information on	This measure is not considered effective, also in the context of

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Discarded policy measure	Short description	Reason for discarding
share information on GHG emissions of trips voluntarily (guidelines to be developed by a Commission expert group)	GHG via the development of guidelines.	exisiting legal frameworks (Count Emmission Eu / FEL) to display GHG.
The rail sector should agree on rules for rail journey continuation based on certain requirements by a given date: open to the public, reliable for passengers and MDMS and covering all rail services. If no agreement is found, the EC sets in legislation rules for rail journey continuation with the same operator with whom the original ticket had been purchased	Rail sector to agree on journey continuation rules.	This measure is not in scope of the initiative, additional measures are considered in the context of the targeted revision of the Rail Passenger Right Regulation.
The MDMS legislation sets out basic rules for rail journey continuation with any operator and specific modalities can be regulated by sector agreement or by implementing legislation	Basic rules for journey continuation in legislation.	This measure is not in scope of the initiative, additional measures are considered in the context of the targeted revision of the Rail Passenger Right Regulation
The sector should agree on the use of multimodal booking API standards by a given date (otherwise EC to impose through legislation) – to be used when there is a commercial agreement	Sector to agree on API standards for distribution.	API standards have been developed in the context of the implementing legislation on TAP-TSI[362] – no need for legal duplication.
Booking API standards set in legislation for all new MDMS agreements if requested by either of the participating parties	API standards for distribution are set in legislation.	API standards have been developed in the context of the implementing legislation on TAP-TSI[363] - no need for legal duplication.

[362] OJ L, 2026/253, 10.2.2026, p. 1.
[363] OJ L, 2026/253, 10.2.2026, p. 1.

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ANNEX 8: RETAINED POLICY MEASURES

This annex presents the policy measures that have been retained to be included in policy options. **SMEs are not subject to any of the Policy Measures listed below.**

Table 135: Retained policy measures, link with specific objective and problem driver and description of the policy measures

Policy measure	Specific Objective	Problem Driver	Description
Policy measures common to all options			
PM 1 – Obligation for **all MDMS platforms** to apply neutral display obligations and **for transport operators (in all modes)** to ensure that the data they submit are accurate	SO1	PD2	All MDMS platforms (B2B and B2C) when displaying travel options, shall, by default, rank them based on one or more of the minimum criteria set in legislation (e.g. final price, travel time, greenhouse gas emissions). Such obligation would still allow B2C MDMS platforms to gain revenue from advertisement, since they can still accept payment by transport operators for them to be prominently displayed. However, this cannot be a default ranking criterion and can only be displayed if selected by the end user and be clearly indicated as "the best option for". In addition, transport operators shall ensure the data they submit to MDMS providers are accurate, up to date and allow the MDMS platform to respect the neutral display rules. It should be noted that this PM retains, updates and extends the neutral display obligations, and the obligation to submit accurate data, respectively set out in Article 5 and 9 of the CRS Code of Conduct (which is repealed). In the CRS Code of Conduct this measure is limited to CRS, with PM1 it will be extended to all B2B and B2C MDMS, except for SMEs. The neutral display rules have fostered competition between different sized air carriers and continue to play an essential role in preventing discrimination and present offers in unbiased manner also protecting consumer interest. As explained in Chapter 2, it is essential to extend these rules to all MDMS – in order to ensure a level playing field in the distribution market – and to the other modes of transport, in particular for rail where commercial incentives to promote certain RUs is particularly visible. The extension of these rules will help boost competition between new entrants and rail incumbents and ensure that consumer choice is

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Policy measure	Specific Objective	Problem Driver	Description
			based on unbiased display of travel options. Compared to Article 5 of the CRS Code of Conduct, new ranking criteria will be added as minimum mandatory criteria and display rules will allow for more flexibility compared to the current principal display. Since neutral display obligations are extended to all transport modes, so is the obligation to share accurate data.
PM 2 – Obligation for **all MDMS platforms** to load and process data of operators with equal care and timeliness			MDMS platform (B2B and B2C) shall load, and process data provided by transport operators, with equal care and timeliness. It should be noted that this PM retains and extends to all MDMS platforms, the obligation provided for by Article 3(2) of the CRS Code of Conduct (which is repealed) to ensure fair treatment of all transport operators participating to a platform.
PM 3 – Obligation for **all MDMS platforms** to share marketing and booking data in a fair way, when requested by transport operators and authorities		PD3	Marketing, booking and sales data shall be made available by MDMS platforms, when there is such request by transport operators or public authority, provided that such data are offered with equal timeliness and on a non-discriminatory basis to all transport operators displayed on that platform. It should be noted that this PM retains and extends to all MDMS platforms, the obligation provided for by Article 7 of the CRS Code of Conduct (with is repealed) to prevent CRSs and other MDMS from using marketing and booking data to increase their bargaining power against carriers and travel agents.
PM 4 – Obligation for **all B2B MDMS platforms to treat subscribers fairly and** clearly identify in their display **banned airlines**. Obligation for third countries B2B MDMS to **ensure equal treatment of EU air carriers**		PD1	All B2B MDMS platforms shall fairly treat subscribers to do not impose unfair and unjustified conditions to travel agents in their commercial relationships with them. All B2B MDMS platforms shall comply with the obligations under Article 9 of Regulation 2111/2005 to bring air carriers subject to an operating ban to the attention of passengers. Third countries B2B MDMS shall equally treat EU air carriers and third country air carriers. Equivalent treatment of EU airlines by B2B MDMS

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Policy measure	Specific Objective	Problem Driver	Description
			platforms operating in third countries, is essential to ensure a level playing field between B2B platforms competing in the same market. It should be noted that this PM retains and extends to all B2B MDMS platforms the rule on fair treatment of subscribers provided for by Article 6, Articles 5(3) and (4) and Article 8 of the CRS Code of Conduct (which is repealed).
PM 5 – Remove provisions from CRS Code of Conduct on data protection which are no longer necessary due to GDPR			These provisions will be repealed as they are not relevant and fit for purpose anymore, given market, regulatory and technological changes. Notably, the entry into force of GDPR already provides the necessary framework to ensure data protection on ticketing platforms.
PM 6 – Obligation for **Member States** to appoint a national authority to settle disputes between parties, and establish an EU enforcement network for coordination	SO1/2	PD3/4	Each Member State shall appoint one national enforcement body (NEB), responsible for disputes related to neutral display or rules on contractual agreements. This only relates to disputes between parties and not to consumer disputes. Member States already have competent authorities responsible for resolving disputes in relevant areas, such as competition authorities, transport regulatory authorities, and rail regulators. In addition, the EU Data Act requires Member States to ensure that a competent authority or appropriate mechanism is in place to address disputes and oversee compliance with FRAND (Fair, Reasonable, and Non-Discriminatory) conditions, particularly in relation to data access and sharing. It is therefore assumed that Member States will not need to establish new bodies. At most, existing authorities may need to expand their operational capacity. This could involve recruiting additional staff, legal and competition specialists to handle potential increases in disputes and ensure regulatory compliance. The enforcement rules provided for by section 6 of the CRS Code of Conduct are repealed as enforcement will be handled by NEB. The Commission will establish an enforcement network to ensure consistent enforcement in the EU and will also be responsible for assessing citizens satisfaction with online ticketing platforms via a Eurobarometer every two years. Specifically, the EU enforcement network will convene every year to allow NEBs to exchange information on their (i) monitoring, enforcement and

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Policy measure	Specific Objective	Problem Driver	Description
			implementation work, (ii) decision-making principles, and (iii) administrative practices. The Commission will participate in discussions, coordinate and support cooperation on matters of common interest and exchange of best practice.
PM 7 – Obligation for **all B2C MDMS** platforms to share data for mobility management	SO1	PD2	Upon request of a public transport authority, MDMS platforms shall provide data relevant for improving the effectiveness of public transport policies on the territories which fall under the responsibility of the public transport authority. The data shall be aggregated and anonymised.
PM 8 – Obligation for **all B2B and B2C MDMS** platforms to display information on GHG or CO2 emissions of trips (when these data are provided by the operators in line with and Count Emissions EU and Flight Emission Label)			MDMS platforms shall provide clear, transparent and accessible information on the greenhouse gas emissions/carbon dioxide equivalent emissions of the travel options displayed, whenever such information is shared by transport operators. Based on Count Emissions EU and Flight Emission Label operators are expected to share these data in a specific format.
PM 9 – Thresholds to identify B2C MDMS platforms and RUs with SMP: **for RUs with SMP**: within one calendar year, 50% or more of the total rail services operated in a Member State (including domestic and EU cross-border services to/from that Member State), expressed in	SO1/2	PD3/4	The legislation sets thresholds for the identification of MDMS platforms with SMP and RUs with SMP. As detailed in section 5.1., to operationalise the concept of indispensability in the B2C distribution market, an MDMS platform is considered as having SMP if it controls at least 10% of the EU market or 30% of a national market, based on either the total value or volume of tickets sold in one transport mode. For MSE, they are considered as having SMP if they reach 10% or more of EU domain traffic. For RUs, SMP is defined as

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Policy measure	Specific Objective	Problem Driver	Description
yearly passenger kilometres **for B2C MDMS with SMP**: evaluated at EU and national level, via two proxies: total number of ticket sold and/or the total value of tickets			operating 50% or more of total rail services in a Member State, measured in annual passenger-kilometres, including both domestic and cross-border services.
PM 10 – B2C MDMS platforms with SMP: must notify national authorities or the EC about their market presence. National authorities designate B2C MDMS platform, RUs with SMP and indispensable RU platforms at national level, while the EC designates B2C MDMS platforms with SMP at EU level. The EC publishes a list of MDMS platforms (including indispensable RU platforms) and RUs with SMP at both national and EU level.			When an MDMS platform meets the thresholds at EU level, it shall notify the Commission and the national enforcement body, for the thresholds at national level. The national enforcement body designates B2C MDMS and RUs with SMP at national level. For RU, this is done following the procedure of the Rail Market Monitoring Scheme[364]. National enforcement bodies shall inform the Commission of their respective designation decisions. The Commission shall publish on its official website, and keep up to date, a list of the designated, at national or Union's level, MDMS platforms and RUs with SMP. This also lists indispensable RUs platforms which are considered indispensable when it is owned by an indispensable RU.
PM 11 – B2C MDMS platforms with SMP, indispensable RU platforms and B2B MDMS: must respect principles on distribution fees and cannot impose highly restrictive clauses (exclusivity clauses, unfair and unjustified conditions, marketing clauses and other technical restrictions) when entering into commercial agreements with transport operators		PD3	MDMS platforms with SMP, indispensable RU platforms and B2B MDMS providers must respect a set of rules when entering into a commercial agreement with an operator, such as (1) the protection of commercially sensitive data, (2) cannot attach unjustified contract conditions or unnecessary to the contract(3) apply remuneration based on objective and transparent criteria (such as quality and level of services, annual volume of transport products distributed, look-to-book ratios, etc).These criteria must be transparently shared with the operator or the NEB if requested. They should not discriminate between transport operators, and B2B MDMS providers must ensure equal access to distribution facilities and maintain a clear software-

[364] Rail Market Monitoring (RMMS) - Mobility and Transport

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Policy measure	Specific Objective	Problem Driver	Description
			based separation from transport operators' private systems. It should be noted that this PM retains and extends the rules on fair treatment of transport operators provided for by Article 3 of the CRS Code of Conduct to all other B2B MDMS and to B2C MDMS with SMP to prevent abusive behaviours through unfair and unjustified conditions. These rules are retained and updated to ensure a better level playing field between different sized carriers, reducing the imbalance in bargaining power vis-à-vis indispensable MDMS (including CRSs). More transparency on the level of fees will facilitate cooperation as fees are one of the most controversial elements in the negotiations of distribution agreements.
PM 12 – Indispensable RUs (with SMP and operating PSO and cross- border services): must respect principles on distribution fees without imposing restrictive clauses (exclusivity clauses, marketing clauses and other technical restrictions) when entering into commercial agreements with MDMS platforms		PD4	Under PM 13, indispensable RUs (with SMP) and all other rail undertakings in relation to PSO and cross- border services, are obliged to enter into a commercial agreement when requested by an online distribution platform. When entering a commercial agreement with an online distribution platform, these entities must apply non-discriminatory and reasonable contract conditions. Beyond, they may not include conditions that would prevent the online distribution platform to combine their tickets and fares with any other ticket of other RUs, and which would potentially prevent the platforms to offer single tickets.
PM 13 – Indispensable RUs (with SMP and operating PSO and cross- border services): must enter into commercial agreements with requesting MDMS platforms to enable the re-linking, resale and/or distribution of their tickets via those platforms for the specified services (‘sharing obligation’)	SO2		Indispensable RUs (with SMP in any given Member State and all other rail undertakings in relation to PSO and cross- border services) will be obliged to enter into a commercial agreement with any requesting online ticketing platform to enable re-linking, resale and/or distribution of their tickets (depending on the request of the platform) within, to and from that Member State. These agreements must follow the principles laid down in PM12. This obligation only applies to these services (e.g. PSO, cross-border services) and not to other services the RU might operate. RUs, railway service organisers, competent authorities, and any other entity responsible for a railway service that are within the scope of PM13, may nonetheless attach to the commercial agreement reasonable conditions to ensure that the distribution platform is viable.

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Policy measure	Specific Objective	Problem Driver	Description
PM 14 – Indispensable RU platforms: must enter into commercial agreements with requesting RUs (operating within the same geographical area in which the RU owning the indispensable RU platform has SMP) to enable the distribution of their tickets (‘hosting obligation’)			Indispensable RU platforms shall enter into agreements with requesting RUs in order to distribute tickets, offered within the same geographical area in which the indispensable RU platform is active, including cross-border services to and from the Member State. They must apply non-discriminatory and reasonable contract conditions as described in PM11.
PM 15 – Indispensable RU platforms: must unbundle its distribution system from the systems of its parent operator	SO1/SO2		Indispensable RU platforms shall unbundle their railway ticket distribution systems from their railway operations. The platform shall be in organisational, functional, hierarchical and decision-making terms, legally distinct and independent from any RU.

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ANNEX 9: BACKGROUND ON THE CODE OF CONDUCT ON COMPUTERISED RESERVATION SYSTEMS AND AIR MARKET

In contrast to the rail market, which is opening to a slow pace, the air services market has been open for decades, and is characterised by competition between multiple large, medium and small airlines operating in the market with free access to routes and freedom of pricing. Airlines today rely on intermediaries (both B2B and B2C) to access as many consumers as possible in order to compete effectively. Third-party platforms have a stronger market presence in air as are the first port of call for consumers searching for air tickets, allowing them to effectively negotiate with airlines to display and sell tickets[365]. However, smaller airlines might encounter more difficulties to access and use intermediaries than larger airlines. The maturity of the air services and distribution market has been boosted also through the adoption of sector-specific regulation on CRSs. The maturity of the intermediary distribution market is shown by around 49% of the tickets sold in the EU in 2024 went through MDMS (31% via B2B and 18% via B2C MDMS) as explained in Annex 4.

Computerised Reservation Systems ("CRSs") were originally established by airlines to sell their own tickets. In the 1980s CRSs began to act as intermediaries between airlines and travel agents, by displaying travel options (availabilities and fares) also from carriers other than those owning the CRS. At that time, the vast majority of airline bookings were made through CRSs, and most CRSs were owned and controlled by airlines. Whilst some customers already made direct bookings with airlines, the fact that most reservations were made by TAs through airline-owned CRSs in the 1980s raised concerns regarding the potential bias in presenting the results of flight searches to travel agents. CRSs could favour the flights of the airlines owning them, and parent carriers could discriminate against CRSs owned by other airlines. This combination created risks of competitive abuse for which **general competition rules were not sufficient and for which specific ad hoc rules in the form of a Code of Conduct were necessary**. **Regulation 2299/89 was therefore adopted to ensure equal treatment of all airlines whose flights were included in a CRS as to promote competition between airlines in the indirect air ticket distribution sector**. It introduced requirements for results to be shown on an unbiased display that did not favour the CRS's parent carriers (or any other carriers) and to ensure that parent carriers did not favour their own CRS over the others as well as to ensure that travel agents and finally consumers have access to offers without bias. Given the complex and multi-national character of the CRS services and its support for the single aviation market, regulation at EU level had strong-added value.

Already in 2007, first technological and market developments had removed some of the features of the competitive landscape for which the CRS Code of Conduct was created. Many airlines divested from CRSs and the rise of alternative distribution channels, such as the airlines' websites or their call centres, **allowed consumers to have access to a multiplicity of information and booking channels for air transport services**. Therefore, in 2009 Regulation 2299/89 was replaced by Regulation (EC) 80/2009 ("the Regulation"), which regulates the business-to-business (B2B) relationships between the CRS providers, as well as air and rail carriers, and travel agents ("subscribers") in indirect ticket distribution. The 2009 revision of the Code of Conduct took into account the advent of the Internet and introduced a degree of liberalisation by, for example, giving more contractual freedom for airlines and CRSs to negotiate booking fees and fare content. This change was justified by some unintended consequences of the 1989's Code of Conduct. Even though the first Code of Conduct was successful in preventing abuse and enhancing competition between airlines in the air services market, the prohibition for airlines to differentiate content between CRSs significantly restricted their negotiating freedom. The lack of competition created a system of economic rents in favour of CRSs and travel agents, at the expense of airlines and their passengers. This lack of flexibility led

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to higher CRS booking fees[366], inciting airlines to distribute an increasing share of their tickets via alternative distribution channels[367].

Today, CRSs account for a smaller share of total air ticket sales. The share of tickets booked via a CRS for flights decreased from approximately 30.1% in 2019 to 22%[368] in 2024 of ticket sold in the EU. However, the CRS market in the EU27 remains highly concentrated among three major global providers. In 2024, one CRS accounted for approximately 64% of all CRS-based air ticket sales in the EU. The second CRS, while globally the second-largest provider with approximately 25-30% global market share, has a smaller footprint in Europe[62] of around 22% of the EU market. The remaining 12–16% is attributed to the third CRS, with an estimated 14% in the EU. On the other hand, as bookings for business travel tend to be higher value and tend to be booked in particular via TMCs (who still rely to a great extent on CRSs) it is likely that the percentage of bookings by value made via CRSs is greater than the percentage by volume. Data collected show a continued heavy reliance on CRS-connected channels, which made up nearly 73% of all ticket selling channels in in 2024. The diversification towards non-CRS content aggregators (including both offline and online OTAs) more than doubled over the same period, growing from 4% to 11% of total distribution channels used. Non-CRS channels are growing in importance with a shift from 5% in 2019 to 9% in 2024 of ticket sold in the EU. Despite this growing ability to diversify, stakeholders confirmed that CRSs remain important for both airlines, in particular small airlines, and for travel agents, including also OTAs, who continue to rely on them for their content.

The declining share of bookings made via CRSs today is due to a multitude of factors. In the 1990s and early 2000s, following air transport liberalisation packages, low-cost carriers (LCCs) gained significant market share across Europe, and by 2018 LCCs were flying more passengers than legacy carries on intra-EEA flights (European Commission, 2019). LCCs incentivised passengers to book their tickets directly via their website and did not distribute tickets via CRSs. Recently, this trend has seen a slight change as also LCCs, including Ryanair, have started distributing part of their tickets through CRSs to increase sales in the business segment. In the last years LCCs have also concluded commercial agreements with several OTAs, MSEs and NCAs to increase their consumers reach. However, some OTAs argue that large airlines and in particular dominant LCCs are employing strategies limiting the integration of their offerings into independent MDMS platforms (e.g. high surcharges, restrictions on marketing, retaining lighter fares etc.). On their side, LCCs argue back that it would be economically unsustainable for them to allow high booking fees and to sell all their offers in all intermediaries as this would undermine their business model which is based on maintaining the costs of travelling low. In general, airlines argue they should be able to withhold certain fares (notably the cheapest fares) from these channels when distribution costs exceed the benefits[369]. Now, all carriers use their website as a promotion tool and as a direct sales channel. In general, the use of the internet by passengers to book flights has grown significantly in recent years due to the increased availability, and speed, of the internet in offices, homes and via mobile data networks[370].

The **internet** penetration also facilitated the creation of new business models in the air ticket distribution sector.

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[366] The non-discrimination requirement for booking fees stifles price competition, because if CRS vendors provide a discount to one airline, they must provide it to all. This requirement was set out in the 1989's Code of Conduct.

[367] 2007's Impact assessment of the Regulation 2299/89 on a Code of Conduct for computerised reservation systems, COM(2007) 709 SEC(2007) 1497, https://transport.ec.europa.eu/document/download/a1f0573a-13a3-4157-b569-bdc40a0f7f72_en?filename=crs_impact_assessment.pdf.

[368] Ricardo (2026) support study of the impact assessment of RMB and RTR. Reported by one main CRS which share that CRS hold 22% of EU air ticketing market in 2024.

[369] One airline interviewed in the context of impact assessment support study indicated that every major European airline group utilises one of the three main CRS backend systems despite this charging 20 EUR per ticket sold, which is significantly more than the fee charged by newer intermediaries.

[370] According to Eurostat, by 2019, the share of EU27 households with internet access was 90%, compared to 64% in 2009 (Eurostat, 2020a).

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This is the case of OTAs, NCAs, MSEs. OTAs and MSEs also take the feed both from CRSs and NCAs in ticket distribution. Among travel agents, Travel Management Companies are a specialised type of travel agents that cater for the needs of business travellers. **New content aggregators**, such as Travelfusion, are companies that supply a software interface that connects directly to multiple carriers' application programming interface (API) and then provides travel agents with capabilities to compare flight options among different carriers and book flights performing similar functions to CRSs. Their main source of revenue is the booking fees paid directly by travel agents, unlike CRS which receive booking fees from carriers and subscription fees from travel agents and TMCs.

In recent years, some airlines have implemented so-called **Direct Connect (DC) systems**[371] that provide a feed of flight and ticket information and booking capability which travel agents and Travel Management Companies can connect to directly. In essence, this is similar to an airline website but aimed at the business-to-business (B2B) sector. Individual DC systems only contain flights operated by the same airline or the same airline's group or with that airline's code (and operated by other airlines with which the airline has a code-sharing agreement or an interlining agreement[372]). The use of DC systems allows air carriers to distribute direct to travel agents and avoiding CRS booking fees. To encourage a greater use of these DC systems, some carriers have implemented booking surcharges for flights booked through CRSs[373] or have withdrawn some of their fares (namely the cheaper ones (Hayhurst, 2018)) from the CRSs, reserving those fares for non-CRS distribution channels (both direct, i.e., their consumer website, or indirect, on DC systems and selected content aggregators). New content aggregators and DC systems use more recent data standards – typically APIs, based on XML standards – than the 1980s EDIFACT data standard traditionally used by the CRSs. One of these standards is 'New Distribution Capability' (NDC). The NDC data standard allows the distribution of richer airline content and increases the potential for selling more varied ancillary services (meals, lounge access, seat selection, etc.) and for selling customised travel products, in line with modern distribution needs. Under the NDC distribution model, travel agent's requests are sent to the airline (either through a direct connect or via an aggregator) and it is the airline and not the intermediary which creates the offer. [374] However, the full transition to NDC is not yet completed for CRSs. Moreover, the use of EDIFACT which allows for less flexibility is required for smaller and medium travel agents and airlines which are not yet able to adapt to NDC. Despite the decline in market shares, **traditional CRSs (Amadeus, Travelport and Sabre) continue to play a key role** because of their strategic position in the distribution chain. CRSs are two-sided platforms connecting airlines with hundreds of thousands travel agents worldwide, TMCs and OTAs. Airlines, and in particular smaller air carriers, still rely on CRS to reach a wide network of travel agents and consumers and neutral display rules allow them to compete on an equal footing with large airlines. Outside of their home markets, also larger airlines seeking a broad global customer base must contract with all major CRSs in order to tap into the network of travel agents and be visible to consumers. The traditional CRS business model relies on airline booking fees, paid for each flight segment booked, today ranging around 8 Euro per flight segment. To negotiate lower booking fees, airlines can agree to provide all fare content, and the lowest fees are available under so-called "full content agreements", where the airline agrees to provide the CRS with the same level of

[371] Due to the limited availability of data provided by stakeholders, it was not possible to determine the current market share of ticket sold in the EU which passes through Direct Connects. Ricardo (2026) support study of the impact assessment of RMB and RTR.

[372] Code-share agreements, also known simply as codeshare, are commercial agreements under which the airline operating a flight (the "operating airline") allows one or more other airlines (the "marketing airlines") to market and issue tickets for the flight as if the marketing airlines were operating the flight themselves. Flights covered by a codeshare agreement are displayed on the airlines' websites and on CRS and other aggregators.

[373] For example, Lufthansa, IAG, and Air France/KLM have added such surcharges (Metcalf, 2017). This triggered complaints to the European Commission by the European Technology and Travel Services Association (ETTSA, now Eu Travel Tech). However, Lufthansa does not impose such a surcharge on bookings made via Travelfusion, a new content aggregator (Boehmer, 2020).

[374] For example, Amadeus started implementing NDC in its CRS in 2019.

content (fares, schedules, and seat availability) as the airline offers on all other channels (including the airline's consumer website). In turn, Travel Agents subscribe to a CRS by paying a subscription fee and often receive incentive payments to use only that CRS (e.g. for each flight segment booked through the CRS), as well as free back-office systems and software and training. The details of each relationship between airlines and CRSs, and between CRSs and subscribers, are subject to contractual conditions negotiated bilaterally between the parties, and usually subject to non-disclosure agreements. Traditional travel agents and in particular smaller travel agents face structural barriers to switching. Financial incentives, technological dependencies, parity clauses and high switching costs strongly encourage them to single-home on one CRS. Smaller agents lack the resources to switch systems or adopt NDC technology (used by new B2B content aggregators) and therefore remain reliant on CRSs using the EDIFACT standard.

Metasearch engines (MSEs) are online aggregators of flight information which provide consumers with price comparisons. They source the information from airlines with which they have a commercial agreement, CRSs, NCAs, OTAs, DC systems and by screen scraping[375] airline consumer websites. Operating in the B2C segment, they do not generally provide booking services[376] or operate as a sales channel but they redirect the user to different OTAs and to the airline website providing the booking function. However, MSEs are consulted by some TAs to obtain information on air travel options that are not available via the other intermediaries they use – for example, flights offered by LCCs may not be included in the CRS system that a TA subscribes to.

Air ticket distribution channels are characterised by **indirect network effects**. For travel agents, an intermediation service becomes more useful as more travel options (be it flight or rail options) are added to it, thus allowing the agent to provide more options to its clients; by using a single feed with different flight options, especially smaller travel agents also enjoy lower search costs by benefiting from having information from multiple airlines collated in one repository. For air carriers, an intermediation service becomes more useful as more consumer-facing channels use it or as more users it (i.e. the more popular B2C channels display airline products prominently), as it increases the visibility of its services, and they get exposure to a bigger audience of potential customers. This is particularly relevant for smaller air carriers that might have more difficulties to be visible to customers[377]. As such, this is a sector where there are strong indirect network effects. **Taken together, all these changes have created an air ticket distribution sector that is multi-pronged:**

- Some tickets are sold directly to consumers ("direct distribution", mostly via the airlines' websites ("airline.com"), but also via the phone).

- Some tickets are sold via online and offline travel agents ("indirect distribution"), who access ticket information either via a traditional CRS, or new business models such as NCAs, or via a DC system. Travel agents, including OTAs and TMCs, might need access to multiple channels if they are to provide travellers with a full range of flight options.

- MSEs provide a "one-stop" solution for consumers to search for different flight options and respective price information, then directing consumers to the relevant website (be it an OTA or an airline's website) to make the booking.

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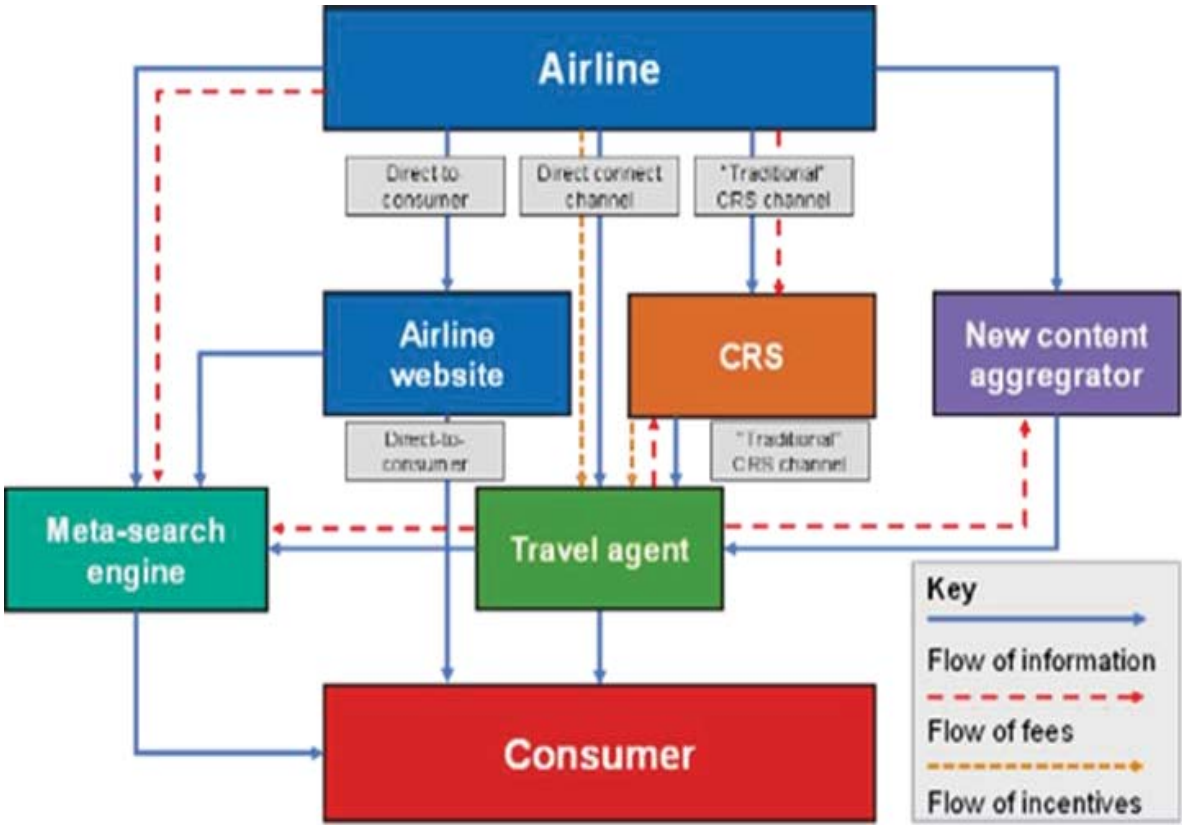
[375] Screen scraping is the act of copying information that shows on a digital display so it can be used for another purpose.
[376] Google Flights now offers booking capabilities for some air carriers in India (Live from a Lounge, 2020).
[377] Being on a CRS can also allow rail operators to compete with air travel, where possible. The CRS Code of Conduct aims to incentivise that practice by mandating that potential rail options are shown in the first screen of a search result.

Figure 16: Air ticket distribution modern landscape



ANNEX 10: LINKS BETWEEN CONCLUSIONS OF THE EX-POST EVALUATION OF THE CRS CODE OF CONDUCT AND THE IMPACT ASSESSMENT

The **CRS Code of Conduct was evaluated in 2020**[378] to assess, whether, in light of market and technological changes in air indirect ticket distribution, it is still relevant in achieving the objectives of (i) preventing distortion of competition between CRSs owned by parent carriers, and (ii) ensuring fair and effective competition between carriers; and, whether it remains fit for purpose given broader horizontal legislation. The main conclusions of the ex-post evaluation, and their links with this IA, are presented in Annex 10 and summarised in this section.

The evaluation concluded that the objectives of (i) ensuring a level playing field and (ii) increasing transparency remain relevant. The evaluation found that the Code has not fully ensured a level playing field for all participating carriers, as regards access to, and use of CRS services, since it did not lead to better balancing of the bargaining power of different-sized air carriers vis-à-vis CRSs. Some carriers expressed concerns about specific clauses in their contracts with CRS providers, reducing the ability of airlines to use alternative booking systems or technology. Moreover, the evaluation concluded that the transparency requirements, in the form of the neutral display, remain important, since travel agents, both offline and online, and travel management companies still heavily rely on CRS data especially for business travel. **The evaluation also concluded that specific sectoral treatment of traditional CRS services may no longer be justified in view of market and technological developments in air ticket distribution** (increased internet penetration, the rise of other channels and divestment of airlines from CRSs). If the CRS Code of Conduct is still considered necessary, its scope should be examined and extended to ensure that it continues to be relevant for future market developments. **Moreover, the evaluation found that the objective of preventing distortion of competition between CRSs by parent carriers and of ensuring fair and effective competition between carriers owning CRSs no longer seems a relevant objective for ex ante regulation.** None of the three traditional CRSs operating in Europe is owned by an air carrier. Theoretically, air carriers might reinvest in CRSs, though there is currently no evidence that this is likely to happen. Therefore, the provisions on parent carriers of the CRS Code of Conduct are no longer relevant for the aviation market. **Finally, the evaluation concluded that while promoting rail and multimodal transport remains important, this should be pursued through broader initiatives rather than CRS-specific rules.** The integration of CRS retained elements in the MDMS proposal is specifically aimed at making it a more genuinely multimodal initiative including both B2B and B2C sides of the ticket distribution chain.

If the CRS Code of Conduct is still considered necessary, its scope should be examined and extended to ensure that it continues to be relevant for future market developments. **Moreover, the evaluation found that the objective of preventing distortion of competition between CRSs by parent carriers and of ensuring fair and effective competition between carriers owning CRSs no longer seems a relevant objective for ex-ante regulation.** None of the three traditional CRSs operating in Europe is owned by an air carrier. Theoretically, air carriers might reinvest in CRSs, though there is currently no evidence that this is likely to happen. Therefore, the provisions on parent carriers of the CRS Code of Conduct are no longer relevant for the aviation market. **Finally, the evaluation concluded that while promoting rail and multimodal transport remains important, this should be pursued through broader initiatives rather than CRS-specific rules.** The integration of CRS retained elements in the MDMS proposal is specifically aimed at making it a more genuinely multimodal initiative including both B2B and B2C sides of the ticket distribution chain.

The following table summarises the links between the conclusions of the ex-post evaluation and the impact assessment of the Code of Conduct on Computerised Reservation Systems.

[378] SWD(2020)9

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Table 136: Link between the conclusions of the ex post evaluation and the impact assessment

Main ex-post evaluation conclusions	Impact Assessment
Conclusions on relevance	
The objectives of ensuring a level playing field and increasing transparency may remain relevant. However, in view of developments in air ticket distribution, it is not clear whether it remains necessary to complement general EU competition rules with specific sectoral treatment of traditional CRS services to achieve a level playing field.	With the proposed rules, all B2B MDMS will be subject to neutral display obligations and will have to comply with fair treatment rules when entering into commercial agreements with willing operators and subscribers. These rules cannot be guaranteed without a sectoral regulation.
Should it be considered that the CRS Code of Conduct is still necessary, its scope would require further attention to ensure that it continues to be relevant in light of market developments. Future policy decisions should carefully consider the impact on air ticket distribution as a whole.	The impact assessment concludes that, in the light of market developments, the scope of the retained rules should be extended to all B2B MDMS, including new content aggregators performing similar functions to traditional CRSs. The MDMS initiative by its nature assesses the combined impact of policy decisions not only on all air ticket distribution but the whole ticket distribution market for all modes.
None of the three traditional CRSs operating in Europe is owned by any air carrier to a significant extent. Preventing parent carriers from distorting competition between CRSs and/or between themselves and participating carriers therefore no longer seems a relevant objective for ex ante regulation.	The impact assessment does not see the need to retain rules on parent carriers as airlines have divested from CRSs and there is no evidence that this is likely to happen again in the future. Removing these provisions is part of all three policy options considered.
Access to and preventing abuse of marketing data (MIDT data) still seems relevant to a certain extent because such data remain an important tool for air carriers in market research, and because some travel agents consider that MIDT data have been used unfairly to put pressure on them.	The rules on access to marketing data (MIDT data) and preventing its abuse are to be retained. In addition, their scope is to be extended to all B2B MDMS, including content aggregators performing similar functions to CRSs.
The objective of consistent application of data protection rules is currently being fully met by the General Data Protection Regulation (GDPR).	The impact assessment concludes that the processing, access, and storage of personal data is now covered by the legislation on data protection (GDPR). Repealing the redundant sector-specific data protection provisions in the CRS Code of Conduct is part of all three policy options considered.
The CRS Code of Conduct contains very limited provisions on promoting rail transport and inter-modal transport, and the evaluation has revealed that only a few rail companies participate in CRSs today. However, that does not mean that this specific objective is irrelevant but there is insufficient evidence to confirm that the CRS Code of Conduct remains the most appropriate or	The MDMS initiative is being proposed as a specific initiative to promote rail transport and inter-modal transport. Integration of CRS retained elements in the MDMS initiative is specifically aimed at ensuring coherence of the policy approach between making it a more genuine multimodal initiative including both B2B and B2C sides of the ticket distribution

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Main ex-post evaluation conclusions	Impact Assessment
necessary vehicle to achieve this objective.	chain.
Conclusions on effectiveness	
The CRS Code of Conduct has not been fully effective in achieving the objective of ensuring a level playing field for all participating carriers for access to, and the use of CRS services, since it did not lead to better balancing of the bargaining power of different-sized air carriers vis-à-vis CRSs.	The impact assessment retains the CRS Code of Conduct's prohibition of unfair and unjustified conditions (i.e., Art. 3 and Art. 6), protecting carriers vis-à-vis powerful CRS services in the form of fair treatmentrules for all B2B MDMS. Moreover, additional, new provisions will improve the position of (smaller) carriers.
Despite the CRS Code of Conduct, travel agents have still been subjected to pressure from air carriers based on marketing data. However, this is considered to be a potential issue with the enforcement of the CRS Code of Conduct rather than with its provisions per se.	The impact assessment concludes that rules on access to and preventing abuse of marketing data (MIDT data) are to be retained to continue ensure the protection of travel agents from undue influence of transport operators.
The CRS Code of Conduct has been effective in achieving transparency of travel options made available on CRS platforms even though the introduction of competition in market and new technologies led to more fragmentation of content. However, the CRS Code of Conduct never had the objective of preventing fragmentation and of making all airline tickets available on CRSs, but rather aimed to ensure that all information provided to CRSs by participating carriers is provided to CRSs' subscribers in a neutral and comprehensive way.	The impact assessment retains the provisions on the neutral display and extending them to all B2B MDMS will continue to ensure and even strengthen transparency of travel options made available on all MDMS.
The travel agents have access to rail options in their systems. CRS providers also confirmed that they work with several train companies and provide rail options in primary displays where relevant. Therefore, it seems that the specific objective of promoting rail transport has been only partially achieved.	Under the proposed MDMS policy options, CRS providers are to obtain access to the full offer of the large RUs. Moreover, promoting rail transport is to be strengthened by allowing consumers to select travel options based on their GHG emissions.
Conclusions on efficiency	
The Code of Conduct imposed limited direct costs on the industry.	The already small direct costs to the industry will be further reduced by removal of Art. 12 of the Code of Conduct (see below).
The CRS Code of Conduct imposes on-going direct costs to CRS providers derived from the reporting requirements (audits) of Article 12 on their ownership structure and governance model. As the CRS providers are all publicly listed companies	Since the parent carrier provisions are no longer necessary, all the policy options considered would repeal Art 12 of the CRS Code of Conduct.

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Main ex-post evaluation conclusions	Impact Assessment
these reporting requirements	
Conclusions on coherence	
The provisions of the Code of Conduct are consistent with general competition law, EU legislation on consumer protection, or other business-related legislation.	The impact assessment concludes that the proposed rules would ensure ongoing consistency with EU legislation, including general competition law and the new and upcoming rules for the digital economy. Moreover, the new rules strengthen consumer protection (e.g., by clearly defining rules on the search criteria to be applied in search tools by MDMS) by extending neutral display requirements for CRS and travel agents to all B2B and B2C MDMS.
Conclusions on EU added value	
Given the international character both of CRS services and of the airline business, regulating the sector at the national level would increase costs and could trigger competitive distortions between Member States. Therefore, the EU intervention has an added value compared to intervention on a national level.	The EU intervention has still an added value as the nature of the sectors covered is international.

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ANNEX 11: DECISIONS AND RULINGS CONCERNING ANTI-COMPETITIVE PRACTICES ON RAIL TICKET DISTRIBUTION

Over the past 20 years, the European Commission, national courts and competition authorities have investigated and have issued judgments or decisions on abusive practices in the rail ticket distribution market in France, Germany, Italy, Spain and Sweden, providing sound evidence of existing market failure.

Specifically, these cases illustrate the limited willingness of indispensable RUs to (i) provide their full offer on fair terms to third party platforms and (ii) their competitors' offer on fair terms on their platform (problem driver 4).

Limited willingness of indispensable RUs to provide their full offer on fair terms to third party platforms

In the 2009 competition case against the French rail incumbent SNCF[379], the French competition authority found that the national railway company had engaged in anti-competitive behaviour by privileging its own online ticketing platform, *Voyages-sncf.com*, and a joint venture subsidiary created with Expedia, over independent ticket platforms. Indeed, SNCF had provided preferential access to its ticket inventory and pricing information to their platforms, thereby ensuring they had a competitive advantage over other online distributors. For example, SNCF did not provide other ticketing platforms with the technical capability to market promotional offers (e.g. last-minute offers) or use the "print ticket" function, and online resellers were forced to purchase an expensive computer licence from SNCF to access its booking system. This strategy was found to effectively stifle competition and limit consumer choice in the French rail ticket distribution market. Following this investigation, SNCF committed to providing access to promotional offers and all its features to online platforms, to significantly lowering the price of the computer licence and enable alternatives to accessing SNCF's computerised services.

Again in 2014, the French competition authority investigated SNCF for engaging in anti-competitive behaviour related to its online ticketing services[380]. The inquiry revealed that SNCF had abused its dominant position in the railway transport market to the detriment of competing services in the ticketing distribution market.. SNCF was found to have engaged in practices favouring the company's platform, by (i) offering exclusive deals and discounts not accessible to rival ticket distribution platforms, (ii) letting the distribution platform *Voyages-sncf.com* potentially access the commercial strategy of other travel agencies given the lack of clear separation with the SNCF subsidiary responsible for collecting access requests to SNCF reservation management system (Résarail) and (iii) the redirection from the sncf.com website to the distribution platform *Voyages-sncf.com* for train schedules and booking SNCF tickets. These actions limited the ability of other distributors to compete effectively. SNCF subsequently committed to apply the same commission conditions to all travel agencies, guarantee the confidentiality of requests by competing travel agencies to *Voyages-sncf.com* and give access to timetables directly on its sncf.com internet site.

Similarly in Germany, in 2023 the Bundeskartellamt ruled that Deutsche Bahn (DB), the German state-owned rail incumbent, was in violation of competition law due to abusing its market power in relation to mobility platforms[381]. According to the findings, DB used unfair commercial practices and contractual clauses to strengthen its already dominant position. These include the lack of fair provision of real-time data of DB passenger services to third-party platforms and the inclusion of restrictive advertising clauses in commercial

[379] Autorité de la concurrence, Decision No. 09-D-06, 5 February 2009
[380] Autorité de la concurrence, Decision No. 14-D-13, 2 October 2014
[381] Bundeskartellamt - Homepage - Offene Märkte für digitale Mobilitätsdienstleistungen – Deutsche Bahn muss Wettbewerbsbeschränkungen abstellen

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agreements with distributors. In August 2024, after the Düsseldorf Higher Regional Court decided to reject an application for urgent legal protection by Deutsche Bahn AG (DB) against the decision of the Bundeskartellamt, the Bundeskartellamt recognised that DB has been making changes and enabled platforms to receive real-time data on delays and cancellations and up-to-date information on departure platforms and major disruptions. Further, DB is no longer including restrictive advertising clauses in contracts and, apart from justified exceptions, allowing mobility platforms to grant discounts on tickets. Furthermore, it was noted that DB was paying platforms an intermediary commission[382]. D.d. March 2026, an appeal against the Bundeskartellamt's decision is still ongoing[383].

In Spain, the European Commission opened a formal investigation on 28 April 2023 assessing whether Renfe abused its dominant position in the Spanish passenger rail transport market by refusing to supply all its content and real-time data to third-party ticketing platforms. The Commission preliminarily found that Renfe's refusal to provide its full content and real-time data have prevented competition and may breach EU competition rules prohibiting the abuse of a dominant position (Article 102 of the TFEU). Renfe consequently committed on 17 January 2024 to make available all current and future content and real-time data to third-party ticketing platforms (with a non-circumvention clause), provide parity to third-party platforms in relation to maximum monthly average Look-to-Book ratios[384] and not exceed a maximum error rate[385] of 4% as of 2024 and a maximum unavailability rate[386] of 1% as of 2025. The Commission concluded that these commitments would address its preliminary competition concerns over Renfe's alleged abuse of dominant position in the Spanish online passenger rail ticket distribution market. It therefore decided to make them legally binding on Renfe[387].

On 18 April 2023, the Italian competition authority (Autorità Garante della Concorrenza e del Mercato) issued a decision accepting commitments from Trenitalia (a subsidiary of Ferrovie dello Stato Italiane (FS), the Italian state-owned rail passenger incumbent operator)[388]. This followed the initiation of an investigation regarding a potential abuse of Trenitalia's dominant position within the rail passenger market, by refusing its competitor Nuovo Trasporto Viaggiatori (NTV) to sell Trenitalia regional and intercity PSO services tickets in combination with NTV's own tickets. These commitments would allow for their competitor, NTV, to sell Trenitalia regional and intercity service tickets, and regional connections offered by Trenitalia TPER and Trenord, in combination with its own tickets.

Limited willingness of indispensable RUs to provide their competitors' offer on their platform

In 2019, the Swedish competition authority (Konkurrensverket) issued a decision and wrote a letter to the Swedish Ministry of Infrastructure in relation to the dominance in ticketing of Statens Järnvägar (SJ), the

[382] Bundeskartellamt (2024), *Further important step in implementing the Bundeskartellamt's ruling on abusive practices against Deutsche Bahn – mobility platforms gain access to real-time data*, Bundeskartellamt - Homepage - Further important step in implementing the Bundeskartellamt's ruling on abusive practices against Deutsche Bahn – mobility platforms gain access to real-time data

[383] Bundeskartellamt (2023), *Open markets for digital mobility services – Deutsche Bahn must end restrictions of competition*, https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2023/28_06_2023_DB_Mobilitaet.html

[384] based on the number of availability requests made by the platforms

[385] number of failed reservation requests vs number of reservation requests

[386] (level of availability of Renfe's sales system between 6:00 and 23:00 hours

[387] European Commission (2024) *Commission accepts commitments by Renfe opening up competition in online rail ticketing in Spain*, https://ec.europa.eu/commission/presscorner/detail/en/ip_24_201

[388] Autorità Garante della Concorrenza e del Mercato (2023), *Bollettino N. 17 del 8 Maggio 2023, Provvedimento n. 30610*, https://www.agcm.it/dotcmsdoc/bollettini/2023/17-23.pd

Swedish state-owned passenger incumbent RU[389]. SJ was investigated by the Swedish Competition Authority (SCA) over allegations of abusing its market position, specifically by refusing to sell competitors' tickets on its platform. In the investigation, the SCA noted that SJ's strategy was not business neutral. The authority therefore suggested creating a neutral booking platform (which already exists in Sweden: https://resrobot.se/ but that sells a very small number of tickets) or to mandate that all transport operators must sell other operators' tickets. The letter recommended that the government initiate a review and consider regulating the selling of tickets for rail passenger services.

The Frankfurt am Main Higher Regional Court (Oberlandesgericht Frankfurt am Main) published a judgment on 2 October 2023[390] prohibiting DB's ticketing platform DB Navigator to offer a "show fastest connection" search filter. This filter was found to mislead consumers by not displaying all possible connections that were fast. The filter, preset by default, prioritised DB's own services even if alternative options existed that were faster but had different departure or arrival times. This algorithm thus deprived competitors of the opportunity to compete fairly and influenced consumer choices towards DB products. The court deemed this practice to be a form of anti-competitive behaviour, as it manipulated search results in DB's favour.

[389] Konkurrensverket (2019), *Konsumenter kan vinna på reglering av försäljning av tågbiljetter*, https://www.konkurrensverket.se/informationsmaterial/nyhetsarkiv/2019/konsumenter-kan-vinna-pa-reglering-av-forsaljning-av-tagbiljetter/

[390] Higher Regional Court of Frankfurt (OLG Frankfurt), Decision of 21 September 2023, Case No. 6 W 61/23, ECLI:DE:OLGHE:2023:0921.6W61.23.00.

ANNEX 12: MONITORING AND EVALUATION

The Commission services will monitor the implementation of this initiative through a number of actions and a set of core indicators that will measure progress towards achieving the objectives. In addition, the National Enforcement Bodies will play a key role in monitoring implementation.

At least five years after the start of implementation of the legislation, the Commission services should carry out an evaluation to among others verify to what extent the objectives of the initiative have been reached. The evaluation should be undertaken at a point in time when sufficient data is available on actual implementation, so that ex-post it can be assessed whether the initiatives are efficient (what actual benefits are achieved at what actual cost), effective (whether they meet the objectives), coherent, relevant (whether they respond to the needs) and EU added value. Also, synergies between the RMB and the RTR will need to be analysed, together with the interplay with the targeted revision on rail passenger rights, since these initiatives are very much interlinked.

As regards Specific Objective 1 (*Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS*), the main milestones are to (i) achieve fair and non-discriminatory commercial agreement negotiations, (ii) ensure unbiased display of travel options for end-users on all MDMS platforms and (iii) minimise unjustified price divergence for identical offers across platforms. Progress towards this objective will be monitored using four key indicators: (i) the number of transport operators distributing transport products on indispensable MDMS platforms, (ii) the number of agreements between MDMS platforms and transport operators, (iii) the number of sanctions imposed and (iv) increased consumer satisfactions scores on travel information availability and book-ability. Data for the first three indicators will primarily be collected through market monitoring carried out by national enforcement authorities and the Commission (PM6). National enforcement authorities can obtain relevant market data from operators, including through MIDT data. Information on sanctions will be shared among authorities within the EU enforcement network to support coordination. Consumer satisfaction will be measured through Eurobarometer surveys conducted by regulators.

Concerning Specific Objective 2 (*Improve completeness of rail offer on MDMS platforms, including indispensable RU platforms*), progress towards this objective and the related operational objectives will be monitored through two main indicators: (i) the number of indispensable RUs present on third-party platforms and (ii) the number of cross-border rail services for which tickets are available on third-party platforms. The data needed to monitor these indicators can rely on existing regulatory requirements. In particular, TAP TSI[391] already requires that certain business-to-business data be made accessible to competent authorities. In practice, this means that national enforcement bodies can request access to relevant ticketing data from distributors. This may include access to comprehensive ticketing datasets where necessary. The monitoring will therefore build on the market monitoring activities carried out by national authorities (PM6).

The links between specific objectives, operational objectives, indicators and data sources is presented in the table below.

[391] OJ L, 2026/253, 10.2.2026, p. 1.

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Table 137: Link between specific objectives, operational objectives, indicators for monitoring and related data source

Specific objective	Operational objectives	Indicators	Data sources
Improve transparency and establish a level playing field for transport operators in terms of access and use of indispensable MDMS	• Achieve fair and non-discriminatory commercial agreement negotiations (limited abuse of negotiating power - reduce discriminatory contractual clauses or exclusivity arrangements) • Ensure unbiased display of travel options for end-users on all MDMS platforms and clear identification of paid prominence or sponsored listings • Minimise unjustified price divergence for identical offers across platforms	• Number of transport operators distributing transport products on indispensable MDMS platforms • Number of agreements between MDMS platforms and transport operators • Number of sanctions imposed • Increased consumer satisfactions scores on travel information availability and bookability	National enforcement authorities European Commission (via the EU enforcement network) Eurobarometer
Improve completeness of rail offer on MDMS platforms, including indispensable RU platforms	• Increase the availability of single rail tickets (representing a multi-operator journey) across MDMS platforms	• Number of indispensable RUs present on third-party platforms (in number of agreements between these parties) • Number of cross-border rail services for which tickets are available on third-party platforms	National enforcement authorities

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ANNEX 13: DETAILED ASSESSMENT OF IMPACT ON COMPETITION

The proposed policy options aim to ensure a better functioning of the MDMS market in the EU and accelerate the development of the rail one. While all POs address the identified problem drivers, and therefore improve market conditions, some measures are expected to have a stronger impact on market dynamics. Some measures are common to all options (PMs1 to 12) and are relevant for B2C and B2B MDMS platforms, to a lesser extent for transport operators (especially RUs) and public authorities, and with a positive impact for consumers.

This section assesses how the policy options affect:

- The functioning of the internal market for passenger rail services,
- The market for online ticketing services (including multimodal ones)
- Entry conditions and competitive dynamics in both markets.

The benchmark is the baseline scenario, described in Section 5.1 and characterised by voluntary commercial negotiations between (rail)operators and MDMS platforms, heterogeneous contractual practices across Member States, potential asymmetries where vertically integrated rail platforms combine operational and distribution functions, and fragmented cross-border integration of ticketing and re-linking solutions. Under the baseline, distribution access in rail is not guaranteed and depends on bilateral commercial incentives. This creates legal and practical uncertainty for market participants and may limit cross-border expansion and entry of new rail operators or platforms. Without EU intervention, fragmentation risks persist or increase as digital distribution becomes more central to passenger choice and market access.

Common measures (PM1-PM8): horizontal improvement of neutrality and transparency

All policy options include common measures that:

- Extend CRS Code of Conduct obligations to all B2B and B2C MDMS platforms, including on neutral display of transport offers on MDMS platforms, fair loading and processing of operator data
- Establish national authorities responsible for dispute settlement.

These measures address distortion of offers and improve transparency in ticket distribution markets. In particular, neutral display reduces the risk of self-preferencing and increases the visibility of alternative transport offers, strengthening competition on price and quality.

However, these measures do not guarantee the possibility for MDMS platforms to sell RU tickets nor the possibility for RUs to be sold on indispensable RU platforms. Therefore, their effect on market structure is not expected to be structural. They improve fairness but do not remove entry barriers caused by refusal to deal.

Comparative assessment across policy options

Policy Option 1: ***Facilitating integration***

Under **PO1**, RUs with SMP and MDMS platforms with SMP are required to respect fair principles when entering commercial agreements. However, the decision to conclude such agreement remains voluntary.

The internal market impact of PO1 lies primarily in improving predictability and reducing the risk of abusive contractual clauses in negotiations involving large actors. It reduces asymmetries in bargaining positions

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where SMP is present and strengthens legal certainty. This reduces asymmetry between large and smaller actors and harmonises negotiation frameworks across the internal market. It strengthens internal market coherence by increasing consistency of contractual practices, reducing discriminatory treatment, improving legal certainty across Member States, and increasing the likelihood that agreements are concluded under balanced terms, thereby facilitating integration of services.

The neutral display requirement (PM1) impacts the market by making alternative transport options more visible, creating incentives to improve transport services and/or lower prices for customers. With neutral display and without self-preferencing, users are more likely to choose the best (cheapest, most innovative, etc.) offer. Competition between service providers is therefore promoted by these measures. Applying fair terms in operator-MDMS with SMP license agreements (PM11) and on indispensable RU operator – MDMS agreement (PM12) in all POs is expected to facilitate the development of commercial agreements by ensuring to the weaker party equitable deals. It would have a significant impact on market conditions, as applying fair terms in commercial agreement would lead to a level playing field for the distribution of tickets affecting all players positioned in the market. This could in turn lead to changes in pricing strategies (lower prices to gain market shares) and thus changes on the demand and supply side. The strong impact of PM11 and PM12 is supported by the introduction of NEBs, that will guarantee the implementation of neutral display requirements and fair terms by dealing with related complaints (PM6 and PM10), improving compliance and deterring unfair behaviour.

Nevertheless, because no obligation to conclude agreements is introduced, structural barriers to entry in distribution markets remain. Rail operators may still limit access to inventory, and MDMS platforms may decline to integrate certain operators. As a result, fragmentation of ticket distribution across Member States may persist.

PO1 therefore improves behavioural fairness and reduces extreme imbalances, but its impact on market contestability and cross-border integration remains moderate.

Policy Option 2: ***Empowering requesting MDMS platforms to offer single tickets in rail***

PO2 is expected to provide stronger incentives to improve the functioning of EU transport system than PO1 as it builds on the same measures while introducing an obligation for indispensable RUs to enter into agreement with requesting MDMS (‘sharing obligation’) (PM13). This provides all platforms with the possibility to sell tickets of all services of major interest for consumers, such as those of incumbent, public service and cross-border operators. While this will come with initial adjustment costs, it will provide strong benefits in the long run by allowing a broader distribution of key RU offerings, and the combination of these newly acquired rail offers with other transport modes, providing innovative, competitive and more sustainable journey options to consumers.

Indeed, PO2 is not only expected to reduce search costs for customers and facilitate matching demand and supply for rail and multimodal journeys but also to increase competition in both the transport and the platform markets. For example, in the rail transport market, the offers of different RUs will be presented on the online platforms next to each other with their characteristics and price. This is likely to lead to more intense price competition between operators. The lower train occupancy rates typically observed for new entrants compared with incumbents suggest that tacit collusion - potentially facilitated by the price transparency of platforms— is unlikely to emerge, at least until new entrants are fully established in the market and achieve occupancy levels comparable to those of the incumbent on specific routes.

This corresponds to what has been observed in domestic rail passenger transport as a result of market opening, with an initial sharp fall in prices as new entrants try to win market shares through aggressive pricing. Only at

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a later stage, price stabilise at a level that is higher than the lowest observed right after entry, but still significantly lower than the pre-entry monopoly price.

RUs also adopt other strategies to win customers, for example targeting specific market segments (low-cost travellers, business travellers, etc) or providing additional services (free WIFI, bicycle transportation, etc). All in all, market opening has resulted in advantages for consumers in terms of price, innovation and higher frequencies, which in turn has increased train ridership[392]. It is expected that customers' greater access to information and ticketing would reinforce these developments.

Similarly to the impact on the transport market, PO2 will increase competition also in the online ticketing market, by making available to all the offer of indispensable RUs. This is expected to erode the position of indispensable RU platforms and encourage innovation in terms of wider offer of services and overall booking experience. However, these effects will materialise gradually, and their full impact is likely to materialise only in the medium to long-term.

Moreover, as under PO1, there is no obligation for indispensable RU platforms to integrate requesting RUs. While market dynamics improve relative to the baseline, structural access to distribution is not guaranteed. Entry barriers linked to refusal to conclude agreements may still arise.

PO2 therefore delivers a stronger improvement in internal market functioning than PO1, but without fully addressing strategic exclusion risks.

Policy Option 3: ***Empowering requesting RU to be offered on indispensable RU platforms***

PO3 is the most ambitious of the options in terms of potential market changes. As for PO1 and PO2 it contains a measure on neutral display (PM1), fair terms in commercial agreements (PM11 and PM12) and a sharing obligation (PM13). In addition to these measures, indispensable RU platforms are required to conclude ticket sale agreements with requesting RUs active in their geographic scope enabling the distribution of the corresponding tickets on their platform (PM14).

This means that the complete set of rail offers that one can expect to find on independent platforms as a result of the 'sharing obligation', will also become a feature of indispensable RU platforms as a result of this 'hosting obligation'. In other words, while the transmission channel of PM13 will be the independent platforms and their customer base, PM14 will produce its effect through the much wider reach of the indispensable RU platforms. The expected outcome on competition and market functioning will be qualitatively similar to PO2, but quantitatively stronger and earlier to materialise. In PO2, it will take time before customers of indispensable RU platforms realise that independent platforms have a more complete offer and, possibly, decide to switch to those distribution channels. In PO3 there will be no need for customers to modify their purchasing habits, since they will be exposed to a more complete offer of rail journeys on the platforms, they are most familiar with.

PM14 would therefore address much more effectively the competition obstacles linked to the strong position of key RUs in both the operational and distribution market, which have been outlined by several national and EU-level competition cases (see Annex 11). This would strengthen competition on the market for rail services, where the lack of fair access to existing distribution channels is a significant barrier to market entry for new operators.

[392] A 2024 study shows that, in certain market segments, competition has slashed prices by 24% (in ES), boosted ridership by 154% (in CZ), increased frequencies by 41% (in AT), raised the rail market share by 18% (in IT). Source: Rail market opening: competition leads to lower ticket prices, EU study finds - Mobility and Transport

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In the online ticketing market, PM14 would widen the offer of indispensable RU platforms. This might have the effect of making them even more attractive for consumers and might reinforce their position vis à vis independent platforms. Although this result might seem suboptimal from the perspective of the platform market, PM1 to PM13 will ensure that indispensable RU platforms compete on fair ground with other platforms and are no longer in a position to abuse their market strength. Moreover, PM14 would provide both travellers and transport operators with a wider choice of platforms to cater for their needs and would eliminate any preferential access to ticketing offers currently enjoyed by certain platforms. This is likely to promote competition on quality of service and innovation rather than on providing exclusive content. The main goal is to introduce conditions of fair competition in both transport and platform markets in a rapid and effective way and PM14 achieves this producing the greatest benefit to consumers.

Accordingly, the impact of PO3 on the internal market is expected to be significant as:

- Access to distribution channels becomes more predictable,
- Entry barriers for new rail operators are removed,
- Vertically integrated distribution systems with SMP face constraints on exclusionary behaviour,
- Cross-border integration of rail services becomes more feasible;
- The near totality of customers will benefit from a complete ticketing offer.

PO3 therefore delivers the most substantial improvement in internal market integration and competition intensity among the policy options.

Policy Option 4: ***Unbundling indispensable RU operators and platforms***

PO4, with the PM 15, also requires indispensable RUs to conclude agreements under fair principles. However, instead of imposing mandatory hosting obligations on indispensable RU platforms, it requires them to unbundle their distribution systems from those of their parent operators.

This measure targets structural conflicts of interest rather than transactional access.

By separating operational and distribution functions, PO4 reduces incentives for preferential treatment and improves neutrality in distribution markets. It addresses vertical integration concerns that may distort competition. However, because PO4 does not impose a direct obligation on indispensable RU platforms to conclude hosting agreements, its impact on guaranteed content availability differs from PO3. The improvement in competition stems from structural governance rather than direct inclusion obligations. PO4 therefore strengthens competitive neutrality and internal market coherence, but its mechanism differs from PO3.

While PM15 is expected to also prevent preferential treatment from incumbents to their own transport services on their platforms, its efficiency is deemed to be lower than PM14, since unbundling is costly and complex to implement and its effects are not immediate, but rather manifest themselves through time as a result of the introduction of a different set of incentives.