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Proposal for a

**COUNCIL IMPLEMENTING DECISION**

**amending Implementing Decision (EU) (ST 10158/21 INIT; ST 10158/21 ADD 1) of 13  
July 2021 on the approval of the assessment of the recovery and resilience plan for  
Germany**

{SWD(2024) 164 final}

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## **COUNCIL IMPLEMENTING DECISION**

**amending Implementing Decision (EU) (ST 10158/21 INIT; ST 10158/21 ADD 1) of 13 July 2021 on the approval of the assessment of the recovery and resilience plan for Germany**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility<sup>1</sup>, and in particular Article 20(1) thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) Following the submission of the national recovery and resilience plan ('RRP') by Germany on 28 April 2021, the Commission proposed its positive assessment to the Council. The Council approved the positive assessment by means of the Council Implementing Decision of 13 July 2021<sup>2</sup>. The Council Implementing Decision was amended on 14 February 2023 and 8 December 2023.
- (2) On 30 April 2024, Germany submitted a modified national RRP, including a REPowerEU chapter in accordance with Article 21c of Regulation (EU) 2021/241, to the Commission.
- (3) On 30 April 2024, Germany also made a reasoned request to the Commission to make a proposal to amend the Council Implementing Decision of 13 July 2021 in accordance with Article 21(1) of Regulation (EU) 2021/241 on the grounds that the RRP is partially no longer achievable because of objective circumstances. On that basis, Germany has submitted a modified RRP. The submission of the modified RRP including a REPowerEU chapter followed a consultation process, conducted in accordance with the national legal framework, involving local and regional authorities, social partners, civil society organisations, youth organisations and other relevant stakeholders. The summary of the consultations was submitted together with the modified national RRP. Pursuant to Article 19 of Regulation (EU) 2021/241, the Commission assessed the relevance, effectiveness, efficiency, and coherence of the modified RRP, in accordance with the assessment guidelines set out in Annex V to that Regulation.

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<sup>1</sup> OJ L 57, 18.2.2021, p. 17.

<sup>2</sup> See documents ST 10158/21 and ST 10158/21 ADD 1 at <http://register.consilium.europa.eu>.

### *Amendments based on Article 21 of Regulation 2021/241*

- (4) The amendments to the RRP submitted by Germany because of objective circumstances concern eight measures.
- (5) Germany has explained that two measures are partially no longer achievable in the given implementation timeline due to lack of skilled IT staff. The shortage of IT professionals increased significantly after the COVID 19 pandemic by the end of 2022. The increased demand for IT professionals across various sectors led to increased employer competition and presented a challenge for IT providers to scale up services. This concerns, respectively target 102 of investment 5.1.2 (Programme to future-proof hospitals) under component 5.1 (Strengthening of a pandemic-resilient health system) and target 113 of reform 6.1.2 (Digitalisation of administration-implementation of the Online Access Act) under component 6.1 (Modern Public Administration). On this basis, Germany has requested to extend the implementation timeline of target 102 amend target 113 and add a target 113A to postpone the part that is no longer achievable within the given implementation deadline. The Council Implementing Decision of 13 July 2021 should be amended accordingly.
- (6) Germany has explained that one target is no longer achievable within the given implementation timeline due to increased IT security requirements related to Russia's war of aggression in Ukraine. This concerns target 85 of investment 3.1.4 (Modernisation of the Federal Armed Forces' educational and training facilities) under component 3.1 (Digitalisation of education). On this basis, Germany has requested to extend the implementation timeline of target 85. The Council Implementing Decision of 13 July 2021 should be amended accordingly.
- (7) Germany has explained that one measure is partially no longer achievable due to lower-than-expected demand for support due to the improved apprenticeship market situation and the unexpected apprenticeship support provided by the private sector itself. This concerns target 91 of investment 4.1.3 (Apprenticeship support) under component 4.1 Strengthening of social inclusion. On this basis, Germany has requested to decrease the disbursement target 91 as well as the cost of the measure. The Council Implementing Decision of 13 July 2021 should be amended accordingly.
- (8) Germany has explained that one measure is partially no longer achievable due to the delayed publication of the implementing regulation in accordance with Art. 14 of the EU Single Digital Gateway Regulation (SDG Regulation), determining the necessary technical specifications for a national uniform technical architecture. A new nationwide IT architecture also had to be created to develop adequate IT infrastructure. This concerns target 115 and target 116 of reform 6.1.3 (Digitalisation of the administration - modernisation of registers) under component 6.1 Modern Public Administration. On this basis, Germany has requested to extend the implementation timeline for target 115 and to extend the implementation timeline as well as to modify target 116. The Council Implementing Decision of 13 July 2021 should be amended accordingly.
- (9) Germany has explained that for two measures better alternatives for their implementation exist in order to achieve the original ambition of the measure. Target 48A and 48B are added to investment 1.3.3 (Building renovation: federal funding for energy efficient buildings) under component 1.3 Climate friendly renovation and construction. The delay related to the implementation of a better alternative concerns target 109 and 110 of reform 6.1.1 European identity ecosystem under component 6.1. (Modern public administration). On this basis, Germany has requested to add target

48A and 48B as well as to extend the implementation timeline for target 109 and target 110. The Council Implementing Decision of 13 July 2021 should be amended accordingly.

- (10) Germany has explained that one measure is partially no longer achievable because some of the contractors were unexpectedly not able to fulfil their obligations. This concerns target 43 of investment 1.3.1 (Support programme for the development of a climate-friendly timber construction sector). On this basis, Germany has requested to decrease the goal of target 43. The Council Implementing Decision of 13 July 2021 should be amended accordingly.
- (11) The Commission considers that the reasons put forward by Germany justify the amendment pursuant to Article 21(2) of Regulation (EU) 2021/241, and the Council Implementing Decision of 13 July 2021 should be amended accordingly.
- (12) The distribution of milestones and targets in instalments should be modified to take into account the new REPowerEU allocation, the amendments to the plan and the indicative timeline presented by Germany.

#### *Corrections of clerical errors*

- (13) 21 clerical errors have been identified in the text of the Council Implementing Decision of July 2021, affecting 30 milestones/targets and 21 measures of 9 components. The Council Implementing Decision should be amended to correct those clerical errors that do not reflect the content of the RRP submitted to the Commission on 28 April 2021, as agreed between the Commission and Germany. Those clerical errors relate to: target 2 of investment 1.1.1 (Hydrogen projects within the framework of IPCEIs); target 8, target 9 and target 10 of investment 1.1.2 (Support programme for decarbonisation of industry); target 11 as well as 13 of investment 1.1.3 (Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference); target 15 of investment 1.1.4 (Project-related climate protection research); target 17, target 18 and target 20 of investment 1.1.5 (Flagship projects for research and innovation in the context of the National Hydrogen Strategy) as well as target 21c of investment 1.1.6 (Federal support for efficient heat networks) under component 1.1 (Decarbonisation using renewable hydrogen in particular); target 23 of investment 1.2.1 (Support for the construction of charging infrastructure) target 29, target 30 and 30A of investment 1.2.3 (Support for the replacement of the private fleet) as well as under component 1.2. (Climate friendly mobility); milestone 56 of investment 2.1.3 (IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)) under component 2.1 (Data as the raw material of the future); target 66 and target 69 of investment 2.2.3 (Digitalisation and Technology Research Centre of the Bundeswehr) under component 2.2 (Digitalisation of the economy) as well as milestone 70, milestone 71, milestone 72 and milestone 72A of investment 2.2.4 (Promoting the digitalisation of rail by replacing conventional interlocking/fast-track programmes to speed up the roll-out of the 'Digital Rail Germany'(SLP) under component 2.2 (Digitalisation of the economy); target 77 of investment 3.1.2 (Education platform) as well as target 80 of investment 3.1.3 (Education centres of excellence) under component 3.1 Digitalisation of Education; target 87 and target 88 of investment 4.1.1 (Investment programme 'Childcare -financing 2020/21) and milestone 97 of reform 4.1.5 (Digital pension overview) of component 4.1 Strengthening of social inclusion ;target 106 of investment 5.1.3 (Special programme to accelerate research and development of urgently needed vaccine against SARS-COV-2) under component 5.1

(Strengthening of a pandemic-resilient healthcare system) as well as target 117 of reform 6.2.1 (Joint programme of the federal government and the Länder for an efficient administration that benefits citizens and the businesses) under component 6.2 (Reduction of barriers to investment). Furthermore, clerical errors relate to the description of investment 1.1.1 (Hydrogen projects within the framework of IPCEIs) and the description of investment 1.1.3 (Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference) under component 1.1. Decarbonisation using renewable hydrogen in particular; the description of investment 1.2.3 (Support for the replacement of the private fleet) of component 1.2 (Climate friendly mobility); the description of investment 1.3.1 (Support programme for the development of a climate-friendly timber construction) under component 1.3 (Climate-friendly renovation and construction); the description of investment 2.1.2 (IPCEI Microelectronics and Communication Technologies) as well as the description of investment 2.1.3 (IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)) under component 2.1 (Data as the raw material of the future); the description of investment 2.2.4 (Promoting the digitalisation of rail by replacing conventional interlocking/fast-track programmes to speed up the roll-out of the ‘Digital Rail Germany’ (SLP)) under component 2.2 (Digitalisation of the Economy) and the description of investment 3.1.1 (programme for teacher devices) under component 3.1 (Digitalisation of education); the description of reform 4.1.4 (Education support for students with learning backlog) of component 4.1 (Strengthening of social inclusion). Those corrections do not affect the implementation of the measures concerned.

***The REPowerEU chapter based on Article 21c of Regulation(EU) 2021/241***

- (14) The REPowerEU chapter includes two new reforms and two new investments. The “Wind Energy on Land Act” and “Offshore Wind Energy Act” reforms contribute to expanding renewable energy capacity by improving and streamlining regulatory procedures. The investment in a support programme for light-and heavy-duty-zero emission transport vehicles and associated infrastructure promotes the procurement of climate-friendly commercial vehicles and the development of requisite refuelling and charging infrastructure. Finally, the investment in a digital platform to accelerate planning and approval concentrates on expediting the planning and approval processes for hydrogen infrastructure projects, utilising digital platforms to streamline administrative procedures. Altogether, these measures under the REPowerEU chapter are designed to enhance energy infrastructure and meet immediate security or supply needs. Investments in wind energy and hydrogen infrastructure not only support the diversification of energy sources but also strengthen the resilience and reliability of Germany’s energy system. The establishment of a diverse, reliable, and renewable energy supply will lead to the stabilisation of energy costs, thereby conferring advantages upon both consumers and producers across the economy. Considering that vulnerable groups tend to allocate a greater share of their income towards essential commodities like energy, any increase in prices disproportionately impacts these groups. Therefore, these reforms and investments can help mitigate price fluctuations in energy, yielding substantial benefits to the most vulnerable communities. The REPowerEU chapter also includes scaled-up measures affecting measure 1.3.3 ‘Building renovation: federal funding for energy-efficient buildings’ under component 1.3 ‘Climate-friendly renovation and construction’.

***Commission’s assessment***

- (15) The Commission has assessed the modified RRP including the REPowerEU chapter against the assessment criteria laid down in Article 19(3) of Regulation 2021/241.

***Balanced response contributing to the six pillars***

- (16) In accordance with Article 19(3), point (a), of and Annex V, criterion 2.1, to Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter represents to a large extent (Rating A) a comprehensive and adequately balanced response to the economic and social situation, thereby contributing appropriately to all of the six pillars referred to in Article 3 of that Regulation, taking into account the specific challenges faced by and the financial allocation for the Member State concerned.
- (17) The original RRP presented a comprehensive and adequately balanced response to the economic and social situation, thereby contributing to all of the six pillars referred to in Article 3 of Regulation (EU) 2021/241, taking into account the specific challenges and the financial allocation of Germany.
- (18) The Commission considers that the modification of the RRP along with the REPowerEU chapter significantly impacts the assessment of the contribution of the RRP to the first pillar on the green transition, where the contribution increases considerably. Notably, the proposed reforms increase the share of renewables in the German energy mix, and the investments increase the energy efficiency of buildings, contribute to the decarbonisation of freight road transport and facilitate approval procedures for a core hydrogen grid. The allocation for digital expenditure is reduced marginally. For the other pillars, the nature and extent of the proposed modifications to the RRP do not have an impact on the previous assessment of the RRP as they represent to a large extent a comprehensive and adequately balanced response to the economic and social situation, and on its appropriate contribution to all of the six pillars referred to in Article 3 of Regulation (EU) 2021/241.

***Addressing all or a significant subset of challenges identified in country-specific recommendations***

- (19) In accordance with Article 19(3), point (b), of and Annex V, criterion 2.2, to Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter is expected to contribute to effectively addressing all or a significant subset of challenges (Rating A) identified in the relevant country-specific recommendations addressed to Germany, including fiscal aspects thereof, or challenges identified in other relevant documents officially adopted by the Commission in the context of the European Semester. In particular, the modified RRP takes into account the energy-related country-specific recommendations of 2022 and 2023.
- (20) In particular, the modified RRP including the REPowerEU chapter takes into account in the overall assessment the energy-related country-specific recommendations of 2022 and 2023 formally adopted by the Council prior to the assessment of the modified plan by the Commission.
- (21) Having assessed progress in the implementation of all relevant country-specific recommendations at the time of submission of the modified national RRP, the Commission finds that substantial progress has been achieved with respect to the 2019 recommendation 2.5 on strengthening the conditions that support higher wage growth.
- (22) The modified RRP including the REPowerEU chapter includes an extensive set of mutually reinforcing reforms and investments that contribute to effectively addressing

all or a significant subset of the economic and social challenges outlined in the country-specific recommendations addressed to Germany by the Council in the context of the European Semester, notably to reducing investment bottlenecks and modernisation of the public administration as well as reforms and investments to accelerate the green and digital transition. It also contributes to addressing challenges related to education, labour market participation, labour taxation and social policy. By addressing the aforementioned challenges, the modified RRP is expected to also contribute to correcting the imbalances, as identified in recommendations made pursuant to Article 6 of Regulation (EU) No 1176/2011 in 2019, 2020, 2022 and 2023, that Germany is experiencing, in particular with regard to the persistent large current account surplus that reflects also subdued investment relative to savings.

### ***Do no significant harm***

- (23) In accordance with Article 19(3), point (d), of and Annex V, criterion 2.4, to Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter is expected to ensure that no measure (Rating A) for the implementation of reforms and investments projects included in this RRP does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852 of the European Parliament and of the Council<sup>3</sup> (the principle of ‘do no significant harm’).
- (24) The changes introduced by the revision of the RRP, with the modification of existing measures or the introduction of new measures, do not affect the positive assessment carried out for the original RRP regarding this assessment criterion. With regard to the new reforms and investments introduced in the REPowerEU chapter, Germany provided a systematic assessment of each measure against the principle of ‘do no significant harm’ in line with the Do No Significant Harm Technical Guidance (2021/C58/01). The information provided allows to conclude that the modified RRP is expected to ensure that no measure does significant harm.

### ***Contribution to the REPowerEU objectives***

- (25) In accordance with Article 19(3), point (da), of and Annex V, criterion 2.12, to Regulation (EU) 2021/241, the REPowerEU chapter is expected to effectively contribute to a large extent (Rating A) to energy security, the diversification of the Union’s energy supply, an increase in the uptake of renewables and in energy efficiency, an increase of energy storage capacities or the necessary reduction of dependence on fossil fuels before 2030.
- (26) The REPowerEU chapter effectively contributes to boosting energy efficiency in buildings, increasing the uptake of renewable or fossil-free hydrogen, and accelerating the deployment of renewable energy in line with Article 21c (3), point (b), of Regulation (EU) 2021/241.
- (27) In addition, the REPowerEU chapter contributes to incentivising reduction of energy demand through energy efficiency improvements, via the planned scaled-up investment in building renovation (federal funding for energy-efficient buildings, measure 7.1.1.), in line with Article 21c (3), point (d) of Regulation (EU) 2021/241.

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<sup>3</sup> Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13).

- (28) The REPowerEU chapter also contributes to addressing internal and cross-border energy transmission and distribution bottlenecks, to accelerating the integration of renewable energy sources and to supporting zero-emission transport and its infrastructure, via the planned reforms in onshore and offshore wind energy (measures 7.1.4 and 7.1.5) and the planned investment in a support programme for light- and heavy-duty zero-emission transport (measure 7.1.2), in line with Article 21c (3), point (e) of Regulation (EU) 2021/241.
- (29) The REPowerEU chapter also contributes to supporting the above objectives by reducing planning and permitting bottlenecks to energy infrastructural projects, in particular hydrogen, via the planned investment in a digital permitting platform (measure 7.1.3), in line with Article 21c (3), point (f) of Regulation (EU) 2021/241.
- (30) The measures in the REPowerEU chapter are therefore coherent with the efforts of Germany to achieve the objectives set out in Article 21c (3) of Regulation (EU) 2021/241. In particular, the contributions to addressing internal and cross-border energy transmission, boosting of energy efficiency in buildings, promoting the uptake renewable hydrogen and other renewable energy generation and use and zero emission transport are significant.
- (31) The measures in the REPowerEU chapter are also coherent with the original RRP as REPowerEU measures build on investments in the original RRP, notably on hydrogen infrastructure and sustainable transport.

***Measures having a cross-border or multi-country dimension or effect***

- (32) In accordance with Article 19(3), point (db), of and Annex V, criterion 2.13, to Regulation (EU) 2021/241, the measures included in the REPowerEU chapter are expected to a large extent (Rating A) to have a cross-border or multi-country dimension or effect.
- (33) Within the meaning of the amended Regulation (EU) 2021/241, the measures 7.1.1 (Scale-up) of Building renovation: federal funding for energy-efficient buildings and measure 7.1.3 Digital platform to accelerate planning and approval, and therefore 100% of their estimated costs, have a cross-country or multi-country dimension or effect. A direct cross-border impact is also anticipated with the reform of the Wind Energy on Land Act (7.1.4) and the Offshore Wind Energy Act (7.1.5). These measures in the REPowerEU chapter will contribute to reducing the dependency on fossil fuels and to reducing energy demand (7.1.1). As a result, the measures, and consequently, the REPowerEU chapter as a whole, are considered as having a positive cross-border effect, as established in the Commission's guidance in the context of REPowerEU. Nearly all measures contribute to the reduction of the demand and dependency of fossil fuels. The estimated costs of the measures included in the REPowerEU chapter having a cross-border or multi-country dimension or effect represents 89.6% of the estimated total costs of the REPowerEU chapter.

***Contribution to the green transition including biodiversity***

- (34) In accordance with Article 19(3), point (e), of and Annex V, criterion 2.5, to Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter, contains measures that contribute to a large extent (Rating A) to the green transition, including biodiversity, or to addressing the challenges resulting therefrom. The measures supporting climate objectives account for an amount which represents 49.5 % of the RRP's total allocation (including REPowerEU). The total estimated costs of

measures supporting climate objectives amount to 48.7% of the REPowerEU chapter. These shares were calculated in accordance with the methodology set out in Annex VI to that Regulation. In accordance with Article 17 of Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter is consistent with the information included in the National Energy and Climate Plan 2021-2030.

- (35) The modified RRP overall increases the ambition of the original RRP with regards to the green transition. The inclusion of an additional funding strand to measure 1.3.3. *Building renovation: federal funding for energy-efficient buildings* and its scale-up in the REPowerEU chapter, along with the addition of two new reforms 7.1.4 *Wind Energy on Land Act* and 7.1.5 *Offshore Wind Energy Act* significantly strengthen Germany's ambition in the dimensions of decarbonisation of buildings and renewable energy deployment. In addition, other dimensions such as the promotion of zero-emission road transport (investment 7.1.2 *Support programme for light-and heavy-duty-zero-emission transport and associated infrastructure*) and the facilitation of planned hydrogen infrastructure projects to achieve net greenhouse gas neutrality via a digital permitting platform (investment *Digital end-to-end platform to accelerate planning and approval*) increase its contribution to Germany's efforts towards sustainable transport and its infrastructure, as well as speeding up the approval of hydrogen infrastructural projects. Measures in the REPowerEU chapter reinforce green transition elements of the original RRP. For example, hydrogen infrastructural projects of the original RRP (component 1.1) could be accelerated through the digital permitting platform added via the REPowerEU chapter.
- (36) The measures in the REPowerEU chapter significantly increase the RRP's contribution to the green transition, including biodiversity. Supported measures are expected to reduce greenhouse gas emissions and pollutants in the energy, transport, and buildings sectors. In the energy sector, the easing of application and approval for hydrogen infrastructure projects, as well as legislative reforms removing bottlenecks to the sector's transition by streamlining permitting processes of the Offshore Wind Energy Act and the Wind Energy on Land Act, contribute towards the attainment of the Union's 2030 climate and energy targets, and the 2050 climate target. The quicker roll-out of hydrogen infrastructure is an enabler towards the green transition in the transport and industrial sectors. In the transport sector, the REPowerEU chapter contributes to decarbonising the commercial fleet. Finally, in the building sector, the refurbishment measures on residential buildings and the installation of renewable heating systems will allow to diversify to more sustainable energy sources and a reduction in energy consumption. Most measures are expected to have co-benefits for biodiversity through their expected effect on decreasing the emission of air pollutants and climate change mitigation.
- (37) The measures on sustainable hydrogen exemplify that reforms and investments contributing to the green transition are largely complementary and should work in conjunction with important reforms at the national level in Germany, such as the National Hydrogen Strategy. Further instances comprise the diversification of energy supplies, aimed at fortifying energy security, the increase in the supply of wind energy to help reduce electricity prices, and the programme for efficient buildings to contribute to environmental soundness, all of which align with the overarching policy objectives delineated in the National Energy and Climate Plan (NECP). The scaled-up building renovation measure also contributes to Germany's long-term renovation strategy.

### ***Contribution to the digital transition***

- (38) In accordance with Article 19(3), point (f), of and Annex V, criterion 2.6, to Regulation (EU) 2021/241, the modified RRP contains measures that contribute to a large extent to the digital transition or to addressing the challenges resulting from it. The measures supporting the digital objectives account for an amount which represents 47.6% of the modified RRP's total allocation calculated in accordance with the methodology set out in Annex VII of that Regulation.
- (39) The modifications proposed to the original RRP led to a slight reduction in the percentage of the RRP's total allocation supporting the digital objectives, from 48.1% to 47.5%, given the reduction in the total allocation to support apprentices (measure 4.1.3). The revised RRP continues to address the digitalisation of public administration and education, the digital transformation of health services and hospitals, two IPCEIs on cloud infrastructure and microchips, and the automotive industry's digital transition.
- (40) The REPowerEU chapter is expected to contribute to the digital transition and to addressing the resulting challenges by contributing to the digitalisation of public administration in the field of infrastructure planning and approval. In accordance with Article 21c(5) of Regulation (EU) 2021/241, reforms and investments in the REPowerEU chapter are not to be taken into account when calculating the plan's total allocation for the purpose of applying the digital target requirement set by that regulation.

### ***Lasting impact***

- (41) In accordance with Article 19(3), point (g), of and Annex V, criterion 2.7, to Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter is expected to have a lasting impact on Germany to a large extent (Rating A).
- (42) The modified RRP does not reduce the ambition of the original RRP as a whole. It takes into account the economic situation during the COVID-19 crisis, supply-chain disruptions, the impact of Russia's war of aggression in Ukraine, as well as some unexpected legal and technical difficulties and the availability of better alternatives for the implementation of some measures. It also includes an additional measure for the RRP, and a new REPowerEU chapter which, in addition to the existing measures, is also expected to have lasting positive effects on the German economy and further boost its green transition. Notably, the additional measures are expected to have a lasting impact regarding the green transition, with lasting increases of the energy efficiency of the building stock, a more climate friendly vehicle stock and a facilitated rollout of renewable-based power generation both on land and sea.

### ***Monitoring and implementation***

- (43) In accordance with Article 19(3), point (h), of and Annex V, criterion 2.8, to Regulation (EU) 2021/241, the arrangements proposed in the modified RRP including the REPowerEU chapter are adequate (Rating A) to ensure effective monitoring and implementation of the RRP, including the envisaged timetable, milestones and targets, and the related indicators.
- (44) The arrangements proposed for the original RRP remain in place and the previous positive assessment is not affected. The coordinating body in the Federal Ministry of Finance and the line Ministries are responsible for the effective implementation of the RRP. The various arrangements set up to devise, negotiate and ensure an efficient and regular implementation of the RRP are credible in terms of the legal mandate and

administrative capacity. The milestones and targets of the RRP constitute an appropriate system for monitoring the implementation of the RRP. Milestones and targets are clear and realistic and the indicators for those milestones and targets are relevant, acceptable and robust. Milestones and targets are also relevant for measures already completed which are eligible under Article 17(2) of Regulation (EU) 2021/241. The verification mechanisms, data collection and responsibilities described by the German authorities appear sufficiently robust to justify the disbursement requests in an adequate manner upon satisfactory fulfilment of the milestones and targets.

### ***Costing***

- (45) In accordance with Article 19(3), point (i), of and Annex V, criterion 2.9, to Regulation (EU) 2021/241, the justification provided in the modified RRP including the REPowerEU chapter on the amount of the estimated total costs of the RRP is to a medium extent (Rating B) reasonable and plausible, is in line with the principle of cost efficiency and is commensurate to the expected national economic and social impact.
- (46) The costing information provided by Germany for measures with 1.3.3 energy efficiency and 4.1.3 apprenticeships and for the measures in the REPowerEU chapter, do not affect the rating B of the original RRP. Germany has provided detailed information for the scaled-up investment and for the measure with reduced costing, as well as for the three investments in the REPowerEU chapter. The estimated costs of those investments are in line with their nature and type, and they are accompanied by relevant costing evidence and analysis. The costs of the scaled-up measure related to energy efficiency renovations, of the measure related to an AI-based hydrogen platform and of the measure related to heavy duty vehicles are well justified, reasonable, plausible and do not include costs covered by other existing or planned EU financing. Finally, the estimated total cost of the RRP is in line with the principle of cost-efficiency and commensurate to the expected national economic and social impact.

### ***Coherence of the RRP***

- (47) In accordance with Article 19(3), point (k), of and Annex V, criterion 2.11, to Regulation (EU) 2021/241, the modified RRP including the REPowerEU chapter includes to a high extent (Rating A) measures for the implementation of reforms and public investment projects that represent coherent actions.
- (48) The modification amends three components and adds a new component (7.1), the REPowerEU component. The modifications made to the existing components do not alter the overall coherence of the RRP, taking into account the way the components are mutually reinforcing and complementary. The additional component related to REPowerEU's objectives adds to the overall coherence of the RRP, as it includes measures to further reinforce the reduction of greenhouse gas emissions and to promote the use of renewable energy, which is particularly important in the context of reducing dependence on fossil fuels. The modifications are mutually reinforcing and complement each other.

### ***Any other assessment criteria***

- (49) The Commission considers that the amendments put forward by Germany do not affect the positive assessment of the RRP set out in the Council Implementing Decision of 13 July of 2021 on the approval of the assessment of the RRP for

Germany regarding the relevance, effectiveness, efficiency and coherence of the RRP against the assessment criteria laid down in Article 19(3), point (c) and (i)

### ***Consultation process***

- (50) In preparation of the REPowerEU chapter, the German authorities indicate that consultations took place with the Länder, the social partners and welfare organizations and environmental associations as well as during a joint discussion with social partners and environmental associations. Afterwards, the authorities integrated the feedback from the consultation process into the draft REPowerEU chapter. To ensure ownership by the relevant actors, it is crucial to involve all local authorities and stakeholders concerned, including social partners, throughout the implementation of the investments and reforms included in the modified RRP including the REPowerEU chapter.

### ***Positive assessment***

- (51) Following the positive assessment of the Commission concerning the modified RRP including the REPowerEU chapter, with the finding that the RRP satisfactorily complies with the criteria for assessment set out in Regulation (EU) 2021/241, in accordance with Article 20(2) of and Annex V to that Regulation, the reforms and investment projects necessary for the implementation of the modified RRP including the REPowerEU chapter, the relevant milestones, targets and indicators, and the amount made available from the Union for the implementation of the modified RRP including the REPowerEU chapter in the form of non-repayable financial support should be set out.

### ***Financial contribution***

- (52) The estimated total costs of the modified RRP including the REPowerEU chapter of Germany is EUR 32 344 275 666. As the amount of the estimated total costs of the modified RRP including the REPowerEU chapter is higher than the updated maximum financial contribution available for Germany, the financial contribution calculated in accordance with Article 11 allocated for Germany's modified RRP including the REPowerEU chapter should be equal to the total amount of the financial contribution available for Germany's modified RRP including the REPowerEU chapter. This amount is equal to EUR 28 018 501 973.
- (53) Pursuant to Article 21a(5) of Regulation (EU) 2021/241, on 30 April 2024 Germany submitted a request for the allocation of the revenue referred to in Article 21a (1) of that Regulation, shared between Member States on the basis of the indicators set out in the methodology in Annex IVa to Regulation (EU) 2021/241. The estimated total costs of the measures referred to in Article 21c(3), points (b) to (f) included in the REPowerEU chapter is EUR 2 444 838 075. As this amount is higher than the allocation share available for Germany, the additional non-repayable financial support available for Germany should be equal to the allocation share. This amount is equal to EUR 2 086 423 922.
- (54) Additionally, in accordance with Article 4a of Regulation (EU) 2021/1755<sup>4</sup>, on 27 February 2023 Germany submitted a reasoned request to transfer part of its remaining

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<sup>4</sup> Regulation (EU) 2021/1755 of the European Parliament and of the Council of 6 October 2021 establishing the Brexit Adjustment Reserve (OJ L 357 8.10.2021, p. 1).

provisional allocation from the resources of the Brexit Adjustment Reserve to the Facility, amounting to EUR 219 739 187. That amount should be made available to support the reforms and investments in the REPowerEU chapter as additional non-repayable financial support.

- (55) The total financial contribution available to Germany should be EUR 30 324 665 082.
- (56) The Council Implementing Decision (ST 10158/21; ST 10158/21 ADD 1) of 13 July 2021 on the approval of the assessment of the RRP for Germany should therefore be amended accordingly. For the sake of clarity, the Annex to that Implementing Decision should be replaced entirely,

HAS ADOPTED THIS DECISION:

### *Article 1*

The Council Implementing Decision (EU) of 13 July 2021 on the approval of the assessment of the recovery and resilience plan for Germany is amended as follows:

- (1) Article 1 is replaced by the following:

*“Article 1*

*Approval of the assessment of the RRP*

The assessment of the modified RRP of Germany on the basis of the criteria provided for in Article 19(3) of Regulation (EU) 2021/241 is approved. The reforms and investment projects under the RRP, the arrangements and timetable for the monitoring and implementation of the RRP, including the relevant milestones and targets, the relevant indicators relating to the fulfilment of the envisaged milestones and targets, and the arrangements for providing full access by the Commission to the underlying relevant data are set out in the Annex to this Decision.”;

- (2) In Article 2, paragraphs 1 and 2 are replaced by the following:

“1. The Union shall make available to Germany a financial contribution in the form of non-repayable support amounting to EUR 30 324 665 082<sup>5</sup> That contribution includes:

- (a) an amount of EUR 16 291 323 631 that shall be available to be legally committed by 31 December 2022;
- (b) an amount of EUR 11 727 178 342 that shall be available to be legally committed from 1 January 2023 until 31 December 2023;
- (c) an amount of EUR 2 086 423 922<sup>6</sup>, in accordance with Article 21a(6) of Regulation (EU) 2021/241, exclusively for measures referred to in Article 21c of that Regulation, with the exception of measures referred to in Article 21c (3), point (a);

<sup>5</sup> This amount corresponds to the financial allocation after deduction of Germany’s proportional share of the expenses of Article 6(2) of Regulation (EU) 2021/241, calculated in accordance with the methodology of Article 11 of that Regulation.

<sup>6</sup> This amount corresponds to the financial allocation after deduction of Germany’s proportional share of the expenses of Article 6(2) of Regulation (EU) 2021/241, calculated in accordance with the methodology of Annex IVa of that Regulation.

(d) an amount of EUR 219 739 187, transferred from the Brexit Adjustment Reserve to the Facility.

2. The Union financial contribution shall be made available by the Commission to Germany in instalments in accordance with the Annex to this Decision. An amount of EUR 2 250 000 000 shall be made available as pre-financing in accordance with Article 13 of Regulation (EU) 2021/241

The pre-financing and instalments may be disbursed by the Commission in one or several tranches. The size of the tranches shall be subject to the availability of funding.”,

(3) The Annex is replaced by the text in the Annex to this Decision:

*Article 2*  
*Addressee*

This Decision is addressed to Germany.

Done at Brussels,

*For the Council*  
*The President*



EUROPEAN  
COMMISSION

Brussels, 27.6.2024  
COM(2024) 277 final

ANNEX

**ANNEX**

*to the*

**Proposal for a COUNCIL IMPLEMENTING DECISION**

**amending Implementing Decision (EU) (ST 10158/21 INIT; ST 10158/21 ADD 1) of 13  
July 2021 on the approval of the assessment of the recovery and resilience plan for  
Germany**

{SWD(2024) 164 final}

## ANNEX

### SECTION 1: REFORMS AND INVESTMENTS UNDER THE RECOVERY AND RESILIENCE PLAN

#### Description of Reforms and Investments

##### A. COMPONENT 1.1: Decarbonisation using renewable hydrogen in particular

The component of the German recovery and resilience plan addresses the challenge of climate change mitigation by aiming to reduce greenhouse gas (GHG) emissions in the economy. The objectives of the component are to support the use of hydrogen produced with energy from renewable sources and to contribute as a primary goal to GHG emission reduction as defined in the German NECP, with a focus on industry. The component also seeks to make a contribution in terms of industrial innovation and employment policy.

The component supports addressing the Country Specific Recommendation on investment in the green transition and constitutes one building block in the design of a clean, efficient and integrated energy system (Country Specific Recommendation 2 in 2019 and Country Specific Recommendation 1 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

##### **A.1. Description of the reforms and investments for non-repayable financial support**

###### ***1.1.1 Investment: Hydrogen projects within the framework of IPCEIs***

The objective of the planned hydrogen Important Projects of Common European Interest (IPCEIs)<sup>1</sup> is to accelerate the necessary market uptake of hydrogen and its derivatives to decarbonise emission-intensive processes and develop new areas of application in Germany and in Europe.

The measure consists of financial support that shall be given to integrated projects along the entire value chain through planned IPCEIs on hydrogen. As regards production, the planned IPCEIs shall focus on building large electrolysis capability to produce renewable hydrogen in locations where sufficient renewable electricity is available. Within this framework, up to 500 MW of electrolysis capability is aimed to be built. As regards infrastructure, they are aimed to contribute to building German and European hydrogen transport and storage infrastructure.

The implementation of the investment shall be completed by 31 August 2026.

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<sup>1</sup> IPCEIs are subject to the notification requirement and stand-still obligation in Article 108(3) of the Treaty on the Functioning of the European Union. The selection and specificities of the proposed projects may require adjustments to ensure compliance with the applicable State aid rules.

### ***1.1.2 Investment: Funding programme for decarbonisation in industry***

The objective of the measure is to help industry shift from highly emission-intensive production processes to low GHG processes. More precisely, it seeks to help businesses address the challenges of the transition, which lie in particular in the high costs and economic risk of developing climate-neutral technologies.

Support shall be given to research and development, testing in experimental or pilot plants and investments in installations for the application and implementation of measures on an industrial scale. The support shall be granted in the form of a partial investment grant. The measure targets companies in energy-intensive industries with GHG emissions emanating from the production process covered by the EU emissions trading scheme (in particular steel, cement, lime, chemicals, non-ferrous metals, glass and ceramics). Only projects resulting in emissions substantially below the EU Emissions Trading System benchmarks shall be eligible for support under the measure<sup>2</sup>.

The implementation of the measure shall be completed by 31 August 2026. In addition, Germany is planning to prolong the measure beyond 2026 with funding under its national budget.

### ***1.1.3 Investment: Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference***

The objective of the measure is, as for measure 1.1.2, the introduction of new, cleaner production technologies for energy-intensive industries. The specific objective of the measure is to provide businesses with financial certainty when they make significant investments in climate-neutral technologies and to reduce on a permanent basis process-related GHG emissions which are difficult to avoid under the current state of the art of technologies.

Climate action contracts shall be signed between the state and energy-intensive industries to cushion the higher operating costs of innovative technologies. These contracts shall guarantee a fixed CO<sub>2</sub> price over a fixed duration for companies investing in CO<sub>2</sub> reduction technologies. The programme is aimed primarily at companies in the steel, chemical and building materials industries where process emissions are particularly difficult to avoid. Only projects resulting in emissions substantially below the ETS benchmarks shall be eligible for support under the measure<sup>3</sup>.

The implementation of the investment is expected to start by 31 December 2021 and shall be completed by 31 August 2026. In addition, Germany is planning to prolong the measure beyond 2026 with funding under its national budget.

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<sup>2</sup> Where the activity supported achieves projected greenhouse gas emissions that are not substantially lower than the relevant benchmarks an explanation of the reasons why this is not possible should be provided. Benchmarks are established for free allocation for activities falling within the scope of the Emissions Trading System, as set out in the Commission Implementing Regulation (EU) 2021/447.

<sup>3</sup> Where the activity supported achieves projected greenhouse gas emissions that are not substantially lower than the relevant benchmarks an explanation of the reasons why this is not possible should be provided. Benchmarks are established for free allocation for activities falling within the scope of the Emissions Trading System, as set out in the Commission Implementing Regulation (EU) 2021/447

#### ***1.1.4 Investment: Project-related climate protection research***

Like other measures from this component, the aim of this measure is to contribute to the general goal of decarbonising the economy in line with the 2050 targets but with a stronger focus on SMEs and basic industries.

Collaborative projects shall be supported in the three areas: (i) climate protection in the industry, (ii) SME innovation and (iii) climate resilience. The first area shall focus on climate protection in the basic materials industry with the aim of promoting industrial research and development of new processes that prevent GHG emissions. The second area of focus shall consist in SME innovation support measures contributing to climate change mitigation and energy efficiency. Lastly, the third area shall focus on support measures for climate resilience projects by municipalities and local businesses associated with research partners (universities and non-university research institutes).

The implementation of the investment shall be completed by 31 December 2025.

#### ***1.1.5 Investment: Flagship projects for research and innovation in the context of the National Hydrogen Strategy***

This measure contributes to the general objective of decarbonising the economy and shall focus specifically on addressing key issues related to the provision of green hydrogen in the future energy system.

On the research side, a first flagship initiative shall address the challenges of serial production of water electrolyzers. A second flagship initiative shall focus on the integrated direct offshore production of hydrogen and its derivatives at sea using offshore wind energy. A third flagship initiative shall explore and assess the potential of hydrogen transport technologies.

The implementation of the measure shall be completed by 31 August 2026.

#### ***1.1.6 Investment: Federal support for efficient heat networks***

The measure consists of financial support to investment projects to decarbonise existing district heating systems, as well as investment projects for the construction of new district heating networks, expanding the share of heat from renewable sources and waste heat.

New district heating networks shall be supported by at least 75% of renewable energy and waste heat. No fossil fuels shall be financed. Support under the scheme shall be granted only to heat generation from renewable energy sources, including sustainable biomass, and waste heat.

The implementation of the measure shall be completed by 31 August 2026.

## **A.2. Milestones, targets, indicators and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
1	1.1.1 Hydrogen projects within the framework of IPCEIs	Milestone	Completion of expression of interest procedure	Companies have submitted project sketches	-	-	-	Q2	2021	The expression of interest procedure has been completed. Potential projects and project participants in Germany have been identified.
2	1.1.1 Hydrogen projects within the framework of IPCEIs	Milestone	Issuance of first grant decisions	Grant decisions issued	-	-	-	Q1	2022	Grant award decisions have been issued to recipients/applicants by the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal Ministry for Digital and Transport (BMDV) enabling the start of the implementation of the selected projects.
3	1.1.1 Hydrogen projects within the framework of IPCEIs	Target	Commitment of at least EUR 500 000 000	-	EUR million	0	500	Q2	2024	At least EUR 500 000 000 have been committed to hydrogen projects in line with grant decisions issued.
4	1.1.1 Hydrogen projects within the framework of IPCEIs	Milestone	Evaluation of the support programme	First evaluation report (interim report) published	-	-	-	Q4	2025	The evaluators have provided a first evaluation report, which shall contain an initial assessment of the direct and indirect effects of the aid and an assessment of the appropriateness and proportionality of the support measure. The evaluation report shall notably assess the success towards the development of electrolytic capabilities, their systemic integration into the energy system (avoidance of network bottlenecks), the development

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
										of demand-driven infrastructure, implementation of hydrogen decarbonisation technologies. The evaluators shall also assess the success of the hydrogen technology market uptake and to what extent it is relevant to the energy system and needs. The evaluation shall be contracted out to external and independent evaluators.
5	1.1.1 Hydrogen projects within the framework of IPCEIs	Target	Commitment of EUR 1 500 000 000	-	EUR million	0	1 500	Q3	2026	At least EUR 1 500 000 000 have been committed to hydrogen projects in line with grant decisions issued.
6	1.1.1 Hydrogen projects within the framework of IPCEIs	Target	Creation of at least 300 MW of electrolysis capacity		Megawatt	0	300	Q3	2026	At least 300 MW of electrolysis capabilities shall be created.
7	1.1.2 Support programme for decarbonisation in industry	Milestone	Entry into force of funding guideline ( <i>Förderrichtlinie</i> ) for decarbonisation in industry	Entry into force of funding guideline	-	-	-	Q1	2021	The guideline has entered into force, enabling companies to submit applications.
8	1.1.2 Support programme for decarbonisation in industry	Target	Issuance of grant decisions	-	Number	0	20	Q4	2024	Grant decisions have been issued to recipients/applicants, enabling the start of the implementation of the selected projects.
9	1.1.2 Support programme for decarbonisation in industry	Target	Disbursement to the supported projects	-	EUR million	0	426.823	Q3	2026	Of the EUR 449 288 000 allocated to the measure, at least EUR 426 823 000 of funds committed to the selected projects have been disbursed to the recipients.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
10	1.1.2 Support programme for decarbonisation in industry	Target	Reduction of greenhouse gas emissions in industry	-	Million tonnes of CO <sub>2</sub> equivalent (annual avoidance)	0	1	Q3	2026	The measure has led to the avoidance of at least 1 million tonnes of CO <sub>2</sub> equivalent in 12 consecutive months in 2025/2026, as evidenced by the interim/final reports sent by recipients to the project promoter. The reports shall indicate how many greenhouse gas emissions (GHG) have been avoided by the implemented projects, compared to the GHG emissions that would have occurred without the intervention. The overall GHG emissions reduction achieved by the measure shall be summarised in a separate report.
11	1.1.3 Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference	Milestone	Completion of expression of interest procedure for climate change contracts	Companies submit expressions of interest for climate change contracts to the Federal Ministry for Economic Affairs and Climate Action (BMWK)	-	-	-	Q4	2021	The expression of interest procedure has been completed, with companies having expressed their interest in receiving support for their projects through climate change contracts and projects having been selected.
12	1.1.3 Pilot scheme for climate action contracts based on the principle	Milestone	Funding guideline ( <i>Förderrichtlinie</i> ) for a pilot programme on climate change contracts based on the	Entry into force of funding guideline	-	-	-	Q3	2022	The guideline for a pilot programme on climate change contracts based on the principle of Carbon Contracts for Difference has entered into force, enabling companies to submit

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	of Carbon Contracts for Difference		principle of Carbon Contracts for Difference							applications.
13	1.1.3 Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference	Target	Disbursement to the supported projects	-	EUR million	0	522, 5	Q3	2026	Of the EUR 550 000 000 allocated to the measure, at least EUR 522 500 000 of funds committed to the selected projects have been disbursed to the recipients.
14	1.1.4 Project-related climate protection research	Target	Approval of applications for support of climate-related research projects	-	Number of applications approved	0	45	Q4	2021	The climate-related research projects selected under the call for tender have been approved for funding.
15	1.1.4 Project-related climate protection research	Target	Disbursement to the supported projects	-	EUR million	0	57	Q4	2025	Of the EUR 60 000 000 allocated to the measure, at least EUR 57 000 000 of funds committed to the selected projects have been disbursed to the recipients.
16	1.1.4 Project-related climate protection research	Target	Completion of supported climate-related research projects	-	Number	0	45	Q4	2025	Projects have been completed, as evidenced by the submission of the final report.
17	1.1.5 Flagship projects for research and innovation in the context of the National	Milestone	Publication of the competition “Idea Competition ‘Hydrogen Republic Germany’” (Förderaufruf zum	Publication of the competition on the Federal Ministry of Education and Research’s	-	-	-	Q2	2020	The competition, including the eligibility conditions, has been published on the homepage of the Federal Ministry of Education and Research and opened for applications.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	Hydrogen Strategy		Ideenwettbewerb „Wasserstoffrepublik Deutschland“)	homepage						
18	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Issuance of grant decisions	-	Number of grant decisions issued	0	150	Q2	2022	Grant decisions have been issued to recipients/applicants, enabling the start of the implementation of the selected projects.
19	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Completion of the supported projects	-	Number	0	150	Q3	2026	The projects have been completed, as evidenced by the availability of the official final report. These reports shall describe in detail the results achieved and compare them with the objectives set.
20	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Disbursement to the supported projects	-	EUR million	0	560	Q3	2026	Of the EUR 700 000 000 allocated to the flagship projects, at least EUR 560 000 000 have been disbursed to recipients. Calculation based on actual payments made.
21	1.1.5 Flagship projects for research and innovation in	Target	Commitment for flagship research and innovation projects	-	EUR million	0	665	Q3	2026	Of the EUR 700 000 000 allocated to the flagship projects, at least EUR 665 000 000 have been committed.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	the context of the National Hydrogen Strategy									
21A	1.1.6 Federal support for efficient heat networks	Target	Signing of grant decisions	-	Grant decisions	0	200	Q4	2023	The implementing authority, BAFA ( <i>Bundesamt für Wirtschaft und Ausfuhrkontrolle</i> ), has signed 200 grant decisions for projects in line with the measure description.
21B	1.1.6 Federal support for efficient heat networks	Target	Completion of feasibility studies and/or transformation plans	-	Feasibility studies and/or transformation plans	0	50	Q4	2024	At least 50 feasibility studies and/or transformation plans have been completed in accordance with the funding guidelines for efficient district heating from 1 August 2022 and submitted to the implementing authority, ( <i>Bundesamt für Wirtschaft und Ausfuhrkontrolle</i> ) BAFA.
21C	1.1.6 Federal support for efficient heat networks	Target	Disbursement to the supported projects	-	Million EUR disbursed	0	541.5	Q2	2026	Of the EUR 570 000 000 allocated to the measure, at least EUR 541 500 000 have been disbursed for the supported projects in line with the measure description.

## **B. COMPONENT 1.2: Climate-friendly mobility**

The component of the German recovery and resilience plan addresses the challenge of climate change mitigation with a focus on the transport sector.

The objective of the component is to contribute to substantially reducing CO<sub>2</sub> emissions in the transport sector. It specifically aims to establish alternative technologies in the transport sector in a sustainable way, to make them more energy-efficient, climate- and environmentally friendly, thereby further promoting the energy transition in transport.

Support for the market development of electro-mobility and the complementary investment in sustainable mobility technologies are also intended to support the transition towards a climate-neutral automotive and supply industry and to help Germany strengthen its economy in the medium and long term.

The component supports addressing the Country Specific Recommendation to “focus investment on the green and digital transition, in particular on sustainable transport, (...) research and innovation” (Country Specific Recommendation 1 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **B.1. Description of the reforms and investments for non-repayable financial support**

#### ***1.2.1 Investment: Support for the construction of charging infrastructure***

The general challenge addressed by the measure is the need to develop clean mobility solutions to decarbonise the transport sector. Specifically, this measure tackles the need to develop a ubiquitous network of charging infrastructure for e-vehicles. This is one of the key conditions for the success of electro-mobility as the current lack of charging infrastructure holds back the purchase of e-vehicles.

The measure consists of aid for building recharging points, including the necessary grid connection of the recharging site and the installation of the recharging point itself. Support shall take the form of project funding for a grant scheme to be operated by the Federal Ministry for Digital and Transport (BMDV). It shall apply to both publicly accessible and non-publicly accessible charging infrastructure.

The implementation of the measure shall be completed by 31 December 2025.

#### ***1.2.2 Investment: Funding for the development of electro-mobility***

The general challenge addressed by this measure is also the need to develop clean mobility solutions to decarbonise the transport sector. In particular, it targets the further market development of electro-mobility and, in particular, the development of municipal and commercial vehicle fleets.

The measure consists of financial support given for the purchase of electric vehicles in municipal and commercial fleets and necessary charging infrastructure for the operation of these vehicles. In addition, application-oriented research and development projects, the development of electric mobility projects (municipal and commercial) and electro-mobility concepts shall be supported. The support shall take the form of funding a grant scheme to be operated by the Federal Ministry for Digital and Transport.

The implementation of the measure shall be completed by 30 June 2024.

### ***1.2.3 Investment: Support for the replacement of the private vehicle fleet***

The general challenge addressed by this measure is the same as for measure 1.2.2. The promotion of electro-mobility is an essential part of achieving the Paris climate goals in the transport sector. The measure focuses on the challenge represented by the very low share of pure e-cars in the total vehicle fleet (1,2% in 2020), especially compared to the 7 million to 10 million electric vehicles envisaged in the 2030 Climate Change Programme.

The measure shall reduce the purchase prices of electric vehicles, which is usually higher compared to those with internal combustion engines, thereby stimulating the market. Support shall be provided exclusively for the promotion of zero-emission vehicles and plug-in hybrids emitting less than 50g CO<sub>2</sub>/km.

The implementation of the measure shall be completed by 31 March 2025.

### ***1.2.4 Reform: Extension of the initial registration period for granting the ten-year tax exemption for purely electric vehicles***

The general challenge addressed by this measure is the same as for measure 1.2.2. The promotion of electro-mobility is an essential part of achieving the Paris climate goals in the transport sector.

The measure consists of a ten-year tax exemption starting from the registration of an electric vehicle. It shall be limited to purely electric vehicles. The exemption shall apply to all natural and legal persons.

The implementation of the reform shall be completed by 31 March 2026.

### ***1.2.5 Investment: Support for purchases of buses with alternative propulsion***

The general challenge addressed by this measure is the same as for measure 1.2.2. The aim of the measure is to support the market circulation of alternatively fuelled buses in passenger transport. Currently, diesel buses are still almost exclusively used in bus transport. The shift to low-emission buses shall contribute to a lower climate impact and less air pollution.

The measure consists of grants attributed on the basis of calls for tenders. Funds shall mainly be used for battery-powered electric buses, battery trolley buses, fuel cell buses and 100% biomethane-powered buses. Operationally necessary infrastructure, as well as feasibility studies on alternative drives in public transport, may also be supported. It is expected that the financing of buses to be fuelled with biomethane will remain limited (the share of gas buses in Germany has steadily decreased in recent years and is currently around 2% of all city buses in use).

The implementation of the measure is expected to start in the third quarter of 2021 and shall be completed by 30 September 2026.

### ***1.2.6 Investment: Support to promote alternative rail propulsion***

The challenge addressed by this measure is also the decarbonisation of the transport sector, but it focuses on rail. Around 3 200 diesel locomotives are currently used in rail freight transport; 60% may be classified as very old vehicles with high CO<sub>2</sub> emissions. This measure aims to replace these particularly old vehicles to achieve a significant reduction in CO<sub>2</sub> emissions and air pollutants (such as nitrogen oxides and black carbon).

The measure consists of financial support for the procurement of innovative rail vehicles (in terms of powertrain) or the conversion to alternative engines with

significant CO<sub>2</sub> savings on non-electrified lines compared to conventional diesel vehicles. Applications shall be prioritised on the basis of environmental benefits.

The implementation of the measure shall be completed by 31 December 2024.

***1.2.7 Investment: Promotion of the industries involved in hydrogen and fuel cell applications in transport***

This measure seeks to contribute to the decarbonisation of the transport sector in link with component 1.1 Decarbonisation using renewable hydrogen in particular. The objective is to support a competitive supply industry for hydrogen and fuel cell technology. This includes enabling the production of fuel cell components and serial testing of hydrogen components and vehicles in Germany.

A new Hydrogen Technology and Innovation Centre shall focus on the hydrogen and fuel cell technology value chain for mobility applications. It shall also provide a development, certification and standardisation facility, which is not able to be carried out without public support due to the early stage of the market and the high costs involved. The measure shall also provide additional funding opportunities for the vehicle and supply industry through the existing funding guidelines in the National Innovation Programme for Hydrogen and Fuel Cell Technology.

The implementation of the measure shall be completed by 31 August 2026.

## **B.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone/ Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
22	1.2.1 Support for the construction of charging infrastructure	Milestone	Entry into force of funding guidelines	Two funding guidelines published in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q4	2021	The two funding guidelines are published in the Federal Gazette ( <i>Bundesanzeiger</i> ), enabling eligible organisations / households to submit applications to: (1) 'charging infrastructure for residential buildings' and (2) 'publicly accessible charging infrastructure for electric vehicles'.
23	1.2.1 Support for the construction of charging infrastructure	Target	Expansion of the public recharging network for electric vehicles	-	Number of publicly accessible recharging points	0	50 000	Q4	2025	At least 50 000 publicly accessible recharging points have been funded with support from the grant scheme operated by the Federal Ministry for Digital and Transport (BMDV).
24	1.2.1 Support for the construction of charging infrastructure	Target	Expansion of recharging points in residential buildings	-	Thousand recharging points in residential buildings	0	689	Q4	2023	At least 689 000 recharging points have been funded through the disbursement of financial support from the grant scheme operated by the Federal Ministry for Digital and Transport (BMDV).
25	1.2.2 Funding for the development of electro-mobility	Milestone	Entry into force of the funding guidelines	Entry into force of funding guidelines published in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q4	2020	The funding guidelines covering the development of municipal and commercial e-vehicle fleets and charging infrastructure, as well as related applied R&D (e-mobility concepts/designs) and e-mobility concepts have been published in the Federal Gazette ( <i>Bundesanzeiger</i> ), enabling eligible organisations / households to submit applications.
26	1.2.2 Funding for the	Target	Commitment of funds	-	EUR million	0	71.25	Q4	2022	Of the EUR 75 000 000 allocated to the measure, at least EUR 71 250 000 have been

Sequential Number	Related Measure (Reform or Investment)	Milestone/ Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	development of electro-mobility									committed.
27	1.2.2 Funding for the development of electro-mobility	Target	Expansion of municipal and commercial e-mobility fleets	-	Number of e-vehicles	0	4 000	Q2	2024	Municipalities, companies and other eligible organisations have received funding commitments for at least 4 000 e-vehicles with support of the grant scheme.
28	1.2.2 Funding for the development of electro-mobility	Target	Completion of electro-mobility preliminary designs	-	Number of completed electro-mobility preliminary designs	0	80	Q2	2024	At least 80 electro-mobility preliminary designs have been completed for municipalities, companies or other eligible organisations.
29	1.2.3 Support for the replacement of the private vehicle fleet	Target	Support for the purchase of 240 000 electric vehicles	-	Number of e-vehicles purchased	0	240 000	Q1	2021	Recipients have received grant support for the purchase of a total of 240 000 electric vehicles on the basis of the amended funding guidelines that entered into force on 8 July 2020.
30	1.2.3 Support for the replacement of the private vehicle fleet	Target	Support for the purchase of another 320 000 electric vehicles	-	Number of e-vehicles purchased	240 000	560 000	Q4	2022	Recipients have received grant support for the purchase of a (cumulative) total of 560 000 electric vehicles on the basis of the amended funding guidelines that entered into force on 8 July 2020.
30A	1.2.3 Support for the replacement of the private vehicle fleet	Target	Support for the purchase of 399 450 electric vehicles	-	Number of e-vehicles purchased	0	399 450	Q1	2025	Additionally to the purchases supported under targets 29 and 30, grant support has been disbursed to recipients for the purchase of 399 450 electric vehicles, (PHEV, BEV and FCEV) on the basis of the funding guidelines (BAnz 07.07.2020 B2) that entered into force on 8 July 2020 as well as any subsequent guidelines and amendments to those guidelines.

Sequential Number	Related Measure (Reform or Investment)	Milestone/ Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
31	1.2.4 Extension of the initial registration period for granting the ten-year tax exemption for purely electric vehicles	Milestone	Entry into force of the Seventh Motor Vehicle Tax Amendment Act	Provision in the law indicating the entry into force of the Seventh Motor Vehicle Tax Amendment Act	-	-	-	Q4	2020	The amendment to the Motor Vehicle Tax Act to extend the initial registration period for e-vehicles to obtain the ten-year tax exemption has entered into force.
32	1.2.4 Extension of the initial registration period for granting the ten-year tax exemption for purely electric vehicles	Milestone	Evaluation of the measure	The measure shall be evaluated five years after its entry into force, within the framework provided for in the Seventh Motor Vehicle Tax Amendment Act.	-	-	-	Q1	2026	The evaluation shall examine whether the vehicle tax bases is expected to continue to provide incentives for environmentally and climate-friendly mobility in the future. In particular, the data from the customs administration and the Federal Motor Transport Authority shall be used for this purpose (cf. BT-Drs.19/20978 p. 16). The evaluation shall be published.
33	1.2.5 Support for purchases of buses with alternative propulsion	Milestone	Publication of funding guidelines	Publication in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q3	2021	The funding guidelines on the support scheme for the purchase of buses and coaches for passenger transport with alternative propulsion have been published in the Federal Gazette ( <i>Bundesanzeiger</i> ).
34	1.2.5 Support for purchases of buses with alternative propulsion	Target	Approval of applications	-	EUR million	0	1 031	Q3	2025	Of the EUR 1 085 000 000 allocated to the measure, at least EUR 1 031 000 000 of bus purchase projects have been approved, enabling the orders of the corresponding buses.
35	1.2.5 Support for purchases	Target	Orders of buses with alternative	-	Number of buses	0	2 800	Q3	2026	At least 2 800 buses with alternative propulsion have been ordered with support from the

Sequential Number	Related Measure (Reform or Investment)	Milestone/ Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	of buses with alternative propulsion		propulsion		ordered					scheme.
36	1.2.6 Support to promote alternative rail propulsion	Milestone	Entry into force of the funding guidelines	Entry into force	-	-	-	Q1	2021	The funding guidelines for the grant scheme to promote alternative rail propulsion have entered into force enabling eligible organisations to submit applications.
37	1.2.6 Support to promote alternative rail propulsion	Target	Approval of applications	-	EUR million	0	215.65	Q3	2024	Of the EUR 227 000 000 allocated to the measure, at least EUR 215 650 000 of rail purchase projects have been approved, enabling the orders of the corresponding rail vehicles.
38	1.2.6 Support to promote alternative rail propulsion	Target	Order of rail vehicles with alternative propulsion	-	Number of rail vehicles ordered	0	280	Q4	2024	At least 280 rail vehicles (locomotives) with alternative (to conventional diesel) propulsion have been ordered, with support from the scheme, as evidenced by binding awards by the beneficiary of contracts for the delivery of the vehicles with manufacturers.
39	1.2.7 Promotion of the industries involved in hydrogen and fuel cell applications in transport	Milestone	Entry into force of amendment extending existing supporting guidelines (Förderrichtlinien) of the National Hydrogen and Fuel Cell Technology Innovation Programme (NIP) (or if not sufficiently covered by existing supporting	Publication in Federal Gazette (Bundesanzeiger)	-	-	-	Q4	2021	The relevant funding guidelines in the National Hydrogen and Fuel Cell Technology Innovation Programme (NIP), currently limited to 30 June 2021, has been extended in time and this extension has entered into force. If planned projects under the measure are not sufficiently covered by existing supporting guidelines, separate supporting guidelines shall be adopted.

Sequential Number	Related Measure (Reform or Investment)	Milestone/ Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
			guidelines, entry into force of new supporting guidelines).							
40	1.2.7 Promotion of the industries involved in hydrogen and fuel cell applications in transport	Target	Approval of projects for the vehicle and supplier industry for hydrogen and fuel cell applications in transport	-	Number of approved projects	0	170	Q4	2025	At least 170 R&D and market activation projects for hydrogen and fuel cell applications in transport have been approved, enabling the start of the implementation of the funded projects.
41	1.2.7 Promotion of the industries involved in hydrogen and fuel cell applications in transport	Milestone	Establishment of a Technology and Innovation Centre for Hydrogen Technology	At least partial start of operations of the centre	-	-	-	Q3	2026	The Technology and Innovation Centre shall be at least partially operational, while, for example, construction works may not have been completed. Partial operation of the centre guarantees that the actual support services to businesses and stakeholders may be provided.

## **C. COMPONENT 1.3: Climate-friendly renovation and construction**

The component of the German recovery and resilience plan addresses the challenge of climate change mitigation and energy transition with a focus on energy-efficient renovation.

In the building sector, Germany aims to reduce CO<sub>2</sub> emissions by around 40% by 2030 compared to current levels (120 million tonnes of CO<sub>2</sub> equivalent in 2020). By 2050, Germany aims to achieve net-zero GHG emissions, including for the building stock in Germany. At the same time, it must be ensured that construction and housing remain affordable.

The climate-friendly construction and renovation component aims at contributing to the achievement of these objectives by increasing energy efficiency and the share of renewable energy in final energy consumption for heating and cooling in buildings. Accompanying measures for the timber construction sector towards digitalisation, circularity and climate-friendly practices shall also be undertaken as timber is identified as having the potential to constitute a climate friendly and resource-efficient building material, as well as leading to cost-effective and time-efficient construction and renovation methods.

The component supports addressing the Country Specific Recommendations related to the green transition, in particular clean, efficient and integrated energy systems and, indirectly, to making housing more affordable (Country Specific Recommendation 1 in 2019 and Country Specific Recommendation 2 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **C.1. Description of the reforms and investments for non-repayable financial support**

#### ***1.3.1 Investment: Support programme for the development of a climate-friendly timber construction***

The objective of this investment is to accelerate the development, deployment and diffusion of innovative technologies, processes, products and services (digital transformation) to increase the use of timber as a climate-friendly building material. The measure is also intended to help overcome structural disadvantages and obstacles in order to be able to establish construction with timber on an equal footing in large-scale, multi-storey construction. To overcome the challenge of transfer of knowledge, innovation and technology between research and practice, the measure further aims to improve the networking between businesses, academia and research institutions related to climate-friendly construction with timber.

To that end, the measure shall focus support on advisory services (analysis, evaluations and recommendations) directed towards increasing the use of timber (coniferous/deciduous) and related to digitalisation, service and business innovation, business optimisation, and recyclability of construction products. The measure shall also focus on the development of innovation clusters related to innovation and development of climate-friendly timber construction. Given the structure of the sector, SMEs are aimed to be the main beneficiaries of the support.

The implementation of the measure shall be completed by 31 December 2021. This corresponds to the period during which project owners may apply for support.

### ***1.3.2 Investment: Municipal living labs for the energy transition***

Municipal living labs for the energy transition explore and demonstrate innovative solutions for the efficient and sustainable energy supply of urban neighbourhoods. Technological and non-technical innovations are tested in a real-world environment, thereby contributing to technology development and market penetration, whilst serving as a blueprint for the subsequent large-scale roll-out of integrated solutions.

Living laboratories (including this measure) are one of the sector coupling measures of the German National Energy and Climate Plan (NECP).

At least four joint living labs projects shall be implemented, covering at least 10 urban neighbourhoods.

The implementation of the measure shall be completed by 31 March 2026.

### ***1.3.3 Investment: Building renovation: federal funding for energy-efficient buildings***

This investment measure focuses on support to the energy-efficient renovation of residential buildings. It consists of two strands focused on i) full renovation programmes and ii) individual measures.

The first strand of the measure shall achieve, on average, at least a medium-depth level renovation as defined in [Commission Recommendation \(EU\) 2019/786 on Building Renovation](#)<sup>4</sup>. More specifically, given the current state of housing stock and the minimum requirement to obtain support under the measure (the renovated building must achieve at minimum Energy class 100) it aims to achieve on average a minimum of 45% of primary energy demand savings and potentially significantly more (70% savings) through bonuses for renewable energy and better classes of energy efficiency.

The second strand shall support individual measures. This strand shall focus on support to the energy-efficient renovation of residential buildings for the following individual measures: building envelope, systems technology (without heating), solar collectors, biomass heating systems, electric heat pumps and combination of these categories. Moreover, support shall extend to a 10% funding bonus for exchanging functioning oil/coal-based heating and gas boilers that are older than 20 years for above-mentioned heating items. Interventions not supported under the measure shall be the replacement of coal/oil-based heating with hybrid gas or gas-condensing boilers, and the connection to district heating networks.

The implementation of the measure under the German recovery and resilience plan is expected to start by 1 January 2021 and shall be completed by 31 August 2026. In addition, Germany is planning to prolong the measure beyond 2026 with funding under its national budget.

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<sup>4</sup> OJL 127, 16.5.2019, p. 34-79

## C.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
42	1.3.1 Support programme for the development of a climate-friendly timber construction sector	Milestone	Funding guidelines on the promotion of climate-friendly timber construction	Publication in the Federal Gazette ( <i>Bundesanzeiger</i> ) and entry into force of the funding guidelines	-	-	-	Q1	2021	The guidelines have been published in the Federal Gazette ( <i>Bundesanzeiger</i> ), enabling companies and eligible organisations to apply for funding.
43	1.3.1 Support programme for the development of a climate-friendly timber construction sector	Target	Approval of projects related to the development of climate-friendly timber construction	-	Number of approved projects	0	17	Q2	2022	At least 17 projects have been approved, enabling the recipients to start their implementation.
44	1.3.2 Municipal living labs for the energy transition	Target	Approval of 'living labs' projects	-	Number of approved projects	0	4	Q4	2023	At least four joint living labs projects have been approved through a grant decision, enabling the start of their implementation.
45	1.3.2 Municipal living labs for the energy transition	Target	Completion of urban neighbourhood projects	-	Number	0	10	Q1	2026	Innovative installations for efficient and sustainable energy supply have been tested and are operational in 10 urban neighbourhoods. The 10 implemented neighbourhood projects demonstrably achieve a reduction in primary energy demand compared to conventional energy supply for

										buildings, thus contributing to decarbonisation in the building sector.
46	1.3.3 Building renovation: federal funding for energy-efficient buildings	Milestone	Funding guidelines for the support of energy-efficient renovation of buildings	Publication of funding guidelines in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q3	2021	The guidelines have been published, enabling households and eligible organisations to apply for funding.
47	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Completion of energy-efficient renovations of 10 000 housing units.	-	Number of housing units renovated	0	10 000	Q4	2024	At least 10 000 housing units have been renovated under the support scheme; the corresponding works have been fully carried out and the corresponding grants have been disbursed.
48	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Completion of energy-efficient renovations of a further 30 000 housing units	-	Number	10 000	40 000	Q2	2026	At least 40 000 housing units have been renovated under the support scheme; the corresponding works have been fully carried out and the corresponding grants have been disbursed.
48 A	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Interim target for completed individual renovation measures for energy-efficient buildings		Completed individual renovation measures	0	55 000	Q4	2024	At least 55 000 individual renovation measures have been completed.
48 B	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Final target for completed individual renovation measures for energy-efficient buildings		Completed individual renovation measures	55 000	145 000	Q2	2026	At least 145 000 individual renovation measures have been completed in total.



## **D. COMPONENT 2.1: Data as the raw material of the future**

The objectives of this component of the German recovery and resilience plan are to support the transition towards a secure and dynamic data economy through the promotion of data-driven innovation in the context of the data strategy<sup>5</sup> adopted by the German federal government on 27 January 2021, as well as through investments in research, development, innovation and first industrial deployments in strategic technological areas linked to the processing of data (microelectronics and next generation cloud infrastructures and services) in the context of large multi-country initiatives.

The component supports addressing the Country Specific Recommendations on investment in the digital transition (Country Specific Recommendation 1 in 2019 and Country Specific Recommendation 2 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **D.1. Description of the reforms and investments for non-repayable financial support**

#### ***2.1.1 Reform: Innovative data policy for Germany***

The objectives of the measure are to foster the sharing and innovative use of data. It notably aims at addressing the lack of infrastructures, data literacy, incentives to share data and incentives to invest in the data economy.

The investment consists of supporting projects, selected mainly through calls for proposals, covering the following activities:

- networks and research and development of software for high-performance computing;
- pilot projects/use cases/real laboratories ('regulatory data sandboxes') for the testing and scientific monitoring of data diffusion models;
- a research network of six living labs investigating depersonalisation of data in certain application domains such as healthcare, automotive, retail and manufacturing;
- research projects on technologies to anonymise data;
- actions aiming at developing data literacy in different fields of science (including those that are less data-intensive);
- data science laboratories linked to the national research data infrastructure;
- support to young researchers in data science;
- support to universities in the re-use, sharing and management of research data;
- monitoring of data skills of the German population;
- data literacy courses for students and other learners;
- research and innovation on architectures, institutions and spaces for the data society;
- development of a freely available toolbox for increased data literacy; and
- a pilot project on data cooperation in the food value chain.

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<sup>5</sup> See <https://www.bundesregierung.de/breg-de/suche/datenstrategie-der-bundesregierung-1845632>

A specific set of actions aiming at improving data literacy and data use in the federal administration shall also be supported. These shall include:

- the stock-taking and analysis of measures already taken to increase data literacy;
- the mapping of data competence across public administration services;
- the creation of Chief Data Scientists or similar roles in federal ministries;
- the establishment and strengthening of internal data laboratories and data competence centres in federal ministries and agencies, including notably the Foreign Office, the Federal Ministry of Education and Research, the Federal Environment Agency, the Federal Ministry of Defence, the Federal Ministry for Economic Cooperation and Development, the Federal Institute for Occupational Safety and Health, the German Corporation for International Cooperation; and
- the creation of a digital academy in the Federal Academy for Public Administration, bringing together all training opportunities to support digitalisation.

The implementation of the reform shall be completed by 31 December 2025.

#### ***2.1.2 Investment: IPCEI Microelectronics and Communication Technologies***

The objective of the measure is to contribute to a cross-border initiative aiming at endowing the European Union with capabilities in electronics design and deployment of the next generation of low power trusted processors and other electronic components.

The initiative shall be implemented through a planned Important Project of Common European Interest (IPCEI)<sup>6</sup>.

The investment consists of providing support to German participants in projects to be implemented as part of the planned IPCEI.

The implementation of the investment shall be completed by 31 August 2026.

#### ***2.1.3 Investment: IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)***

The objective of the measure is to contribute to a large-scale cross-border initiative aiming at fostering the development and first industrial deployment of smart cloud and edge solutions that are highly innovative, fully interoperable, highly secure, energy efficient and fully compliant with data protection.

The initiative shall be implemented through a planned IPCEI.

The investment consists of providing financial support to German participants in projects to be implemented as part of the planned IPCEI.

The selection criteria shall ensure that more than 50% of these projects address energy-efficiency as one of their key priorities and comply with the European Code of Conduct on Data Centre Energy Efficiency.

The implementation of the investment shall be completed by 31 August 2026.

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<sup>6</sup> IPCEIs are subject to the notification requirement and stand-still obligation in Article 108(3) of the Treaty on the Functioning of the European Union. The selection and the specificities of the individual projects may accordingly require adjustments to ensure compliance with the applicable State aid rules. Only projects approved by a Commission decision under the applicable State aid rules may receive State aid.

## **D.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
49	2.1.1 Innovative data policy for Germany	Milestone	Start of projects	Start of all projects	-	-	-	Q4	2022	All projects and activities of the measure have started. Wherever relevant, selection procedures have been completed and selected projects have started.
50	2.1.1 Innovative data policy for Germany	Target	Development of human resources and capabilities in federal ministries	-	Percentage of federal ministries with data units and internal data laboratories	0	95	Q3	2026	At least 95% of federal ministries have established a Chief Data Scientist unit or equivalent and an internal data laboratory
51	2.1.1 Innovative data policy for Germany	Target	Budget execution – disbursement of at least EUR 464 400 000 to the supported projects	-	EUR million	0	464.4	Q3	2026	Of the EUR 516 000 000 allocated to the measure, at least EUR 464 400 000 have been disbursed to envisaged projects and activities.
52	2.1.2 IPCEI Microelectronics and Connectivity	Milestone	Content design of the planned IPCEI	Completion of national call for expression of interest process to identify projects in Germany	-	-	-	Q2	2021	The expression of interest procedure has been completed. Potential projects and project participants in Germany have been identified.
53	2.1.2 IPCEI Microelectronics	Target	Launch of first projects	-	Number of projects	0	10	Q4	2022	Ten grant decisions have been signed.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	and Connectivity									
54	2.1.2 IPCEI Microelectronics and Connectivity	Target	Budget execution – disbursement of at least EUR 1 275 000 000 to the supported projects	-	EUR million	0	1 275	Q3	2026	Of the EUR 1 500 000 000 allocated to the measure, at least EUR 1 425 000 000 have been committed (through signatures of grant decisions) and at least EUR 1 275 000 000 have been disbursed to projects.
55	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Milestone	Launch of R&D&I projects	Signature of grant decisions for R&D&I projects	-	-	-	Q4	2022	The grant decisions have been signed for all R&D&I projects covered by the IPCEI State aid decision. The selection criteria have ensured that more than 50% of these projects address energy-efficiency as one of their key priorities and comply with the European Code of Conduct on Data Centre Energy Efficiency.
56	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Milestone	Launch of pilot phase of use cases	Publication of a report on the state of play of the projects	-	-	-	Q4	2024	A report on the state of play of the initiative has been published.
57	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Target	First industrial deployment of solutions developed under the measure.	-	Number of use cases addressed in large-scale pilots which are eventually addressed in first industrial deployments	0	1	Q3	2026	At least one of the use cases addressed in the large-scale piloting phase shall have been subject to a first industrial deployment.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
58	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Target	Budget execution – disbursement of at least EUR 637 500 000 to the supported projects	-	EUR million	0	637.5	Q3	2026	Of the EUR 750 000 000 allocated to the measure, at least EUR 712 500 000 have been committed (through signatures of grant decisions) and at least EUR 637 500 000 have been disbursed to projects. More than 50% of the funded projects addressed energy-efficiency as one of their key priorities and complied with the European Code of Conduct on Data Centre Energy Efficiency.

## **E. COMPONENT 2.2: Digitalisation of the Economy**

The objectives of the component of the German recovery and resilience plan are to support the digital transition of the German economy and the challenges resulting from it. The component addresses essential aspects such as research and innovation on digital technologies, and skills. It also aims at providing specific support to the automotive and rail sectors.

The component supports addressing the Country Specific Recommendations on investment in the digital transition (Country Specific Recommendation 1 in 2019 and Country Specific Recommendation 2 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **E.1. Description of the reforms and investments for non-repayable financial support**

#### ***2.2.1 Investment: Vehicle manufacturer/supply industry investment programme***

The objective of the measure is to provide support to the digital and ecological transition of the automotive industry, in the context of a programme aiming at supporting future-oriented investments by the vehicle manufacturers and supply industry<sup>7</sup>.

The investment consists of funding projects to be selected through four calls for proposals corresponding to three modules and addressing:

- module (a):
  - investments in the vehicle sector, supporting in particular future-oriented investment projects by small and medium-sized enterprises in the vehicle industry, with the aim of making production processes more energy efficient and digital; and
  - support to research and development projects in the field of digitalisation of production processes and industry 4.0 in the vehicle industry.
- module (b):
  - support to research and development projects in the field of automated driving, innovative powertrains and light building in vehicle technologies.
- module (c):
  - support to regional innovation clusters for the transformation of the vehicle industry, addressing in particular the supply industry and focusing on technology transfer between enterprises from regions particularly affected by structural change, transition to climate-neutral propulsion and digitalisation and modernisation of industry production processes.

Only future investments that make a significant contribution to the digitalisation and climate objectives of the programme launched by Germany to support future-oriented investments by the vehicle manufacturers and supply industry shall be

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<sup>7</sup> <https://www.bmwi.de/Redaktion/DE/Textsammlungen/Industrie/zukunftsinvestitionen-fahrzeughersteller-zulieferindustrie.html>

supported. Therefore, no targeted support for fossil combustion engine technologies in the vehicle sector shall be provided under the measure.

The implementation of the investment shall be completed by 31 August 2026.

### ***2.2.2 Reform: Federal programme ‘Building continuing education and training networks (CET networks)’***

The objective of the measure is to support so-called ‘CET networks’, which promote the organisation of training activities, for employees of SMEs in particular. More specifically, the aim is to support the establishment or development of professional development networks, in order to enable companies, among other things, to benefit from the experience of other companies and of educational and advisory centres and institutions, and thereby to develop their own strategic staff development and training planning. These ‘skills alliances’ shall also enable participating training providers to adapt their offer.

The investment consists of supporting around 40 pilot projects, selected through one of the calls for proposals organised under the federal programmes ‘Building CET networks’.

The implementation of the reform shall be completed by 31 December 2024.

### ***2.2.3 Investment: Digitalisation and Technology Research Centre of the Bundeswehr (dtec.bw)***

The objective of the measure is to support research and innovation activities on strategic technological areas for the future, in order to contribute to strengthen German and European digital and technological sovereignty.

The investment consists of supporting research, development and innovation activities led by the Digitalisation and Technology Research Centre of the Bundeswehr (dtec.bw).

The corresponding research projects shall focus on digital fields and key technologies for the future, in line with the federal government’s high-tech strategy priorities (‘Sustainability’, ‘Climate Protection and Energy’, ‘Mobility’, ‘Security’ and ‘Economics and Work 4.0’):

- Space research, aerospace engineering and space communications;
- Sensor technology and integrated sensor systems;
- Innovative, connected mobility;
- Cybersecurity, including quantum communications;
- Research on risk, critical infrastructures, security and conflict;
- Technologies, methods and impacts of digitalisation (e.g. additive manufacturing);
- Digitalisation of the energy and production sectors, sustainable infrastructure development;
- Artificial Intelligence, robotics and intelligent physical systems; and
- Skills for the digital world of work and leadership models of the future.

The implementation of the investment shall be completed by 31 August 2026.

#### ***2.2.4 Investment: Promoting the digitalisation of rail by replacing conventional interlocking/fast-track programmes to speed up the roll-out of the ‘Digital Rail Germany’ (SLP)***

The objective of the measure is to support the digitalisation of railway in the context of the ‘Digital Rail Germany’ initiative and the ‘fast track’ programme aiming at accelerating it. This initiative gathers public and private stakeholders (including the Federal Railway Authority (EBA), research and technical organisations and industry, amongst others) in order to develop standardised, interoperable and modular components for the digitalisation of railway operations.

The investment consists of funding seven pilot projects of the programme, aiming at developing solutions to replace old signal boxes and level crossing protection systems by security systems of the latest digital generation.

Four of these projects shall enable established firms to certify new solutions in an operational context, while the other three shall enable additional providers to validate their solutions in laboratory tests. The new solutions developed by these projects shall be compatible with the technical specifications of the ‘Digital Rail Germany’ programme. They are also aimed to be upgradeable and compatible with a subsequent ETCS (European Train Control System) upgrade by means of uniform system interfaces.

The implementation of the investment shall be completed by 31 March 2023.

## E.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
59	2.2.1 Vehicle manufacturers/suppliers investment programme	Milestone	Publication of all funding guidelines	Publication of the funding guidelines in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q1	2021	All the funding guidelines for the four types of support measures under the programme have been published in the Federal Gazette ( <i>Bundesanzeiger</i> ) and have become legally binding.
60	2.2.1 Vehicle manufacturers/suppliers investment programme	Target	Approval of projects	-	Number of projects approved	0	401	Q1	2023	At least 401 funding projects (for the three modules) have been approved and have received a support decision for implementation.
61	2.2.1 Vehicle manufacturers/suppliers investment programme	Target	Successful completion of projects	-	Number of projects successfully completed	0	531	Q3	2026	At least 531 funding projects approved between 2021 and 2026 have been successfully completed.
62	2.2.2 Federal programme 'Building further CET networks'	Milestone	Publication of the funding guidelines	Publication of the funding guidelines in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q2	2020	The funding guidelines have been published in the Federal Gazette ( <i>Bundesanzeiger</i> ) and have become legally binding.
63	2.2.2 Federal programme 'Building further CET networks'	Target	Active participation of additional enterprises in CET networks	-	Number of additional enterprises participating in CET networks	0	200	Q4	2022	At least 200 additional enterprises participate in CET networks. These companies participate in the collection of training needs, the design of new training measures or modules and the use of proposed training measures or modules together with other companies (use of information and participation in events only shall not be considered as active participation). Only companies that have not already been

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
										designated as cooperation partners at the start of the respective skills alliance shall be taken into account for this target.
64	2.2.2 Federal programme 'Building further CET networks'	Target	Revision or redesign of training measures or sub-modules as a result of the work of the CET networks	-	Number of revised or redesigned training measures	0	60	Q4	2024	At least 60 training measures or sub-modules have been redesigned or revised, taking into account digital skills, which have been initiated or encouraged by CET networks or which take into account the results of the needs assessments carried out by the coordinating bodies of CET networks.
65	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Target	Launch of research projects	-	Number of projects	0	68	Q1	2021	At least 68 funding grants have been signed and the corresponding 68 projects have received funding and may start their research activity.
66	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Milestone	Report on research and transfer outputs	Publication of a report to the Federal Ministry of Defence confirming successful progress of projects	-	-	-	Q4	2023	A report to the Federal Ministry of Defence has been published, confirming the progress of the funded projects in terms of research outputs, cooperation, knowledge transfer and technology transfer with at least (overall): <ul style="list-style-type: none"> <li>- 200 publications;</li> <li>- 70 collaborations initiated with other research institutes;</li> <li>- 30 collaborations initiated with industrial companies and startups;</li> <li>- 15 collaborations initiated with agencies of the Federal Armed Forces and the public administration;</li> <li>- 10 prototypes of mature technologies; and</li> <li>- 10 patent applications.</li> </ul>

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
										Additionally, an external evaluation of the measure by the German Science Council has also been published.
67	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Target	Continuation of projects	-	Number of projects assessed as progressing satisfactorily	0	40	Q2	2024	On the basis of an interim evaluation, at least 40 projects are considered as progressing satisfactorily and may continue their activities.
68	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Target	Budget execution – disbursement of EUR 700 000 000 to the supported	-	Funds paid to projects	0	700	Q3	2026	At least EUR 700 000 000 has been disbursed to projects supported through the measure.
69	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Milestone	Report on research and transfer outputs	Publication of a report to the Federal Ministry of Defence confirming successful progress of projects	-	-	-	Q3	2026	A report to the Federal Ministry of Defence has been published, confirming the overall success of the funded projects in terms of research outputs, cooperation, knowledge transfer and technology transfer with at least (overall): <ul style="list-style-type: none"> <li>- 400 publications;</li> <li>- 60 doctorates completed;</li> <li>- 100 collaborations initiated with other research institutes;</li> <li>- 70 collaborations initiated with industrial companies and startups;</li> <li>- 30 collaborations initiated with agencies of the Federal Armed Forces and the public administration;</li> <li>- 20 prototypes of mature technologies;</li> </ul>

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
										<ul style="list-style-type: none"> <li>- 20 patent applications; and</li> <li>- 10 start-up projects.</li> </ul>
70	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of the 'Digital Rail Germany'	Milestone	Signature of the financing agreement for the 'fast track' programme between the Federal Government and Deutsche Bahn AG	Signed financing agreement between the Federal Government and Deutsche Bahn AG	-	-	-	Q4	2020	The financing agreement between the Federal Government and Deutsche Bahn AG has been signed.
71	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of the 'Digital Rail Germany'	Milestone	Interim report on implementation	Interim report submitted by DB Netz AG to the Federal Ministry for Digital and Transport (BMDV) and the Federal Railway Authority (EBA) on the implementation of the programme.	-	-	-	Q2	2021	DB Netz AG has submitted a report to the Federal Ministry for Digital and Transport (BMDV) and the Federal Railway Authority (EBA) on the implementation of the programme.
72	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-	Target	Successful completion of pilot projects	-	Number of pilot projects completed	0	6	Q4	2021	Six pilot projects of the programme, aiming at developing solutions to replace old signal boxes and level crossing protection systems by security systems of the latest digital generation have been completed successfully, with validation in operational

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	track programmes to speed up the roll-out of the 'Digital Rail Germany'									conditions for at least three of them, and validation in laboratory conditions for the others.
72A	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of the 'Digital Rail Germany'	Target	Successful completion of the final pilot project	-	Number of pilot projects completed	6	7	Q1	2023	The final pilot project of the programme has been completed successfully with validation in operational conditions.

## **F. COMPONENT 3.1: Digitalisation of Education**

The component of the German recovery and resilience plan focuses on providing financial support for investments in the digital transition in education. The overall aim is to allow for more and better digital teaching and learning throughout the different education and training systems in Germany.

The component addresses the challenge of digital education in Germany. The long identified challenge has been exacerbated by the COVID-19 pandemic as the related lockdown caused closure of education sites such as schools, training institutions and universities. With the shift to online education, suboptimal infrastructure and basic digital skills are putting a break on the learning processes.

The component supports addressing the Country Specific Recommendation on focusing the investment on digital transition, in particular on education (Country Specific Recommendation 2 in 2020 and 1 in 2019) and improving educational outcomes and skills levels of disadvantaged groups (Country Specific Recommendation 2 in 2019).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **F.1. Description of the reforms and investments for non-repayable financial support**

#### ***3.1.1: Investment: Investment programme for teacher devices***

The objective of this investment is to ensure the feasibility of digital teaching and learning across all schools in Germany. It consists of equipping teachers with mobile digital devices on a lending basis. The measure shall be part of a bigger framework supporting digital education that is only partially supported by the German recovery and resilience plan. The provision of digital devices shall be ensured by schools.

The implementation of the investment shall be completed by 31 December 2021.

#### ***3.1.2 Reform: Education platform***

The objective of this measure is to develop and establish the first national education platform for an encompassing education area that, with digital means, supports the development of competences by learners throughout their individual learning pathways. The platform shall connect existing and new learning offers and learning materials and allow for a broad and open access.

The implementation of the measure is expected to start by 31 March 2022 and shall be completed by 31 December 2025.

#### ***3.1.3 Reform: Educational centres of excellence***

The objective of this measure is to improve and institutionalise digital education as part of the established teacher education and further education framework. The measure shall support by providing scientific content the development and set-up of competence centres for digital education based on a system of collaboration between teacher education and in-service training institutions, universities, and research institutes.

The implementation of the measure shall be completed by 31 August 2026.

#### ***3.1.4 Investment: Modernisation of the Federal Armed Forces' educational and training facilities***

This investment seeks to equip up to 60 different education institutions of the Federal Armed Forces (*Bundeswehr*) with up-to-date information technology. The measure shall include a thorough analysis of the state of play and upgrade needs in the different institutions and a subsequent roll out of the necessary equipment and systems.

The implementation of the investment shall be completed by 31 March 2026.

## **F.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
73	3.1.1 Investment programme for teacher devices	Milestone	Administrative agreement	Conclusion of the administrative agreement between the Federal Government of Germany and the governing bodies at Länder level	-	-	-	Q1	2021	Publication in the Federal Gazette ( <i>Bundesanzeiger</i> ) of the administrative agreement between the Federal Government of Germany and the governing bodies at Länder level to implement this investment.
74	3.1.1 Investment programme for teacher devices	Target	Disbursement of at least EUR 475 000 000 to the supported projects	-	EUR million	0	475	Q1	2022	Of the EUR 500 000 000 allocated to the measure, at least EUR 475 000 000 have been disbursed for the provision of digital equipment for teachers.
75	3.1.1 Investment programme for teacher devices	Milestone	Evaluation of changes in digital infrastructure and use of digital media in schools	Final evaluation report	-	-	-	Q4	2025	The evaluation report of the programme confirms that teachers have observed an improvement in the digital infrastructure available and the use of digital media in school.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
76	3.1.2 Education platform	Milestone	Entry into force of the funding guidelines for education platform prototypes and procurement launched	Publication of the funding guidelines and call for tenders in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q1	2022	Funding guidelines have entered into force for the development of three separate prototypes of the meta-platform on education, as well as for cross-compatible research projects, accessible by learners and teachers. Depending on the result of these projects, the key dimensions of the project specifications are clarified and the procurement procedure shall be launched.
77	3.1.2 Education platform	Milestone	Launch of the beta-version of the education platform	Launch of beta version of the platform on the website of the Federal Ministry of Education and Research ( <i>BMBF</i> )	-	-	-	Q3	2023	A beta version of the education platform shall be online, with all services and functions that have been identified in the functional description as high priority by the Federal Ministry of Education and Research ( <i>BMBF</i> ). These functions include access for information, user profile, collaboration, identity and access management, workflows, inbox. The launch shall be accompanied by additional security and data protection audits and successful load tests.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
78	3.1.2 Education platform	Milestone	Final evaluation report with a decision on the future of the education platform	Publication of the final evaluation report in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q3	2024	The final evaluation report of the education platform has been published, with an assessment confirming that the project was successful according to the project monitoring criteria. The project shall be successful if the continuation of the education platform is recommended or if it is established that services and functions of the prototypes shall be taken over and continued by other stakeholders on the basis of the results of the project.
79	3.1.3 Educational centres of excellence	Milestone	Entry into force of the first funding guidelines and call for tenders for a project-executing agency for the overall programme	Publication of the first funding guidelines in the Federal Gazette ( <i>Bundesanzeiger</i> ) and publication of a call for tenders on an award platform.	-	-	-	Q4	2021	Under the lead of the Federal Ministry of Education and Research ( <i>BMBF</i> ), the first funding guidelines have entered into force and have been published. A project-executing agency has been chosen based on applications received via a public call for tenders on an award platform.
80	3.1.3 Educational centres of excellence	Target	Approval of at least 45 research projects	-	Number of research projects approved and in progress	0	45	Q3	2022	At least 45 research projects have been approved by the project-executing agency and are in progress. Results have been published via the Federal catalogue of funds ( <i>Förderkatalog</i> ) and the <i>BMBF</i> website.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
81	3.1.3 Educational centres of excellence	Milestone	Entry into force of three additional funding guidelines	Publication of the additional funding guidelines in the Federal Gazette ( <i>Bundesanzeiger</i> )	-	-	-	Q3	2022	Under the lead of the Federal Ministry of Education and Research ( <i>BMBF</i> ), three additional funding guidelines, each of them with a specific thematic orientation, have entered into force and been published.
82	3.1.3 Educational centres of excellence	Target	Completion of research projects	-	Number of completed research projects	0	45	Q3	2026	At least 45 research projects have been completed, as evidenced by a final evaluation report that shall present the results of the supported research projects and demonstrate the added value for teacher training in digital and digitally supported teaching in each of the Länder. Results have been presented at a closing event and on the <i>BMBF</i> website.
83	3.1.4 Modernisation of the Federal Armed Forces' educational and training facilities	Milestone	Project contract signed	Project contract signed with the IT service provider	-	-	-	Q1	2021	The project contract for the initial phase for assessing the IT systems of the educational and training facilities of the Federal Armed Forces ( <i>Bundeswehr</i> ) has been signed between the Federal Office of Federal Armed Forces' Equipment, Information Technology and In-Service Support (BBAINBw), a civilian higher federal authority directly subordinate to the Federal Ministry of Defense ( <i>BMVg</i> ) and the IT provider, stipulating key steps in the future assessment work.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
84	3.1.4 Modernisation of the Federal Armed Forces' educational and training facilities	Target	Analysis of educational institutions and identification of their IT needs	-	Number of educational institutions fully analysed	0	60	Q1	2022	An assessment report has been adopted by the Federal Ministry of Defence ( <i>BMVg</i> ). This report shall demonstrate that the IT environments and needs of the 60 initially designated educational institutions have been analysed, and the needs and implementation possibilities have been identified.
85	3.1.4 Modernisation of the Federal Armed Forces' educational and training facilities	Target	Completion of the modernisation of the 60 educational institutions	-	Number of educational institutions for which modernisation has been completed	0	60	Q1	2026	A final assessment report has been adopted by the Federal Ministry of Defence ( <i>BMVg</i> ). This report shall confirm that on the basis of the results of the analyses carried out on the 60 institutions, necessary implementing measures have been completed within the time and budgets available. The result of the process, the progress already achieved regarding training and education shall be demonstrated and the way forward for the following years shall be mapped out.

## **G. COMPONENT 4.1: Strengthening of social inclusion**

This component of the German recovery and resilience plan mobilises resources to improve different aspects of social inclusion: (i) labour market inclusion of women and parents in general, (ii) improving educational outcomes and skills for students with a learning backlog, often from disadvantaged backgrounds, (iii) safeguarding apprenticeships, thereby supporting the labour market entry for young people, (iv) protecting take-home pay and jobs by avoiding an increase in the tax wedge, and (v) improving transparency throughout all three pillars of the pension system and thereby access to social protection.

The component supports addressing the Country Specific Recommendation on focusing investment-related economic policy on education and on shifting away taxes from labour (Country Specific Recommendation 1 in 2019), on reducing disincentives to work more hours, on taking measures to safeguard the long-term sustainability of the pension system while maintaining adequacy of the pension level at the same time and on improving educational outcomes and skills levels of disadvantaged groups (Country Specific Recommendation 2 in 2019) and on focusing investment on education (Country Specific Recommendation 1 in 2019 and 2 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **G.1. Description of the reforms and investments for non-repayable financial support**

#### ***4.1.1 Investment: Investment programme ‘Childcare-financing’ 2020/21: special fund ‘Child Day-care Expansion’***

The objective of the measure is to promote the creation of new childcare facilities and the refurbishment of existing facilities, which shall create 90 000 additional places.

For this purpose, the federal government provides support to Länder and local authorities so that these invest in new buildings, extensions, conversions, refurbishments, renovations and equipment.

The implementation of the measure shall be completed by 31 December 2022.

#### ***4.1.2 Reform: Social Guarantee 2021***

The objective of the measure is to avoid that the financial impact of COVID-19 triggers extensive social security contribution rises, denting take-home pay and increasing labour costs.

For this purpose, the Federal Government shall provide fiscal transfers for the social security funds to fill their financing gap, and with this avoid that the contribution rate of social security contributions exceeds 40% in 2021.

The implementation of the reform shall be completed by 31 December 2021.

#### ***4.1.3 Investment: Apprenticeship support***

The objective of the measure is to counteract the COVID-19-related reduction in the number of apprenticeships.

For this purpose, the government shall provide financial support to SMEs that take on apprentices and that maintain their current level of training, create additional

apprenticeships, avoid short-time working (*Kurzarbeit*) for apprentices, or take on apprentices from companies that have become insolvent.

The implementation of the measure shall be completed by 31 December 2022.

#### ***4.1.4 Reform: Educational support for students with a learning backlog***

The objective of the measure is to avoid that a temporary learning backlog due to COVID-19-related disruption becomes entrenched.

For this purpose, the Federal Government shall provide financial support to the Länder so that these provide additional courses and mentoring to pupils, with a focus on core subjects and core competences, for example German language, mathematics and science.

The implementation of the measure shall be completed by 30 September 2022.

#### ***4.1.5 Reform: Digital Pension Overview***

The objective of this measure is to create a Digital Pension Overview, a portal to provide citizens information about their individual pension provision from all three pension pillars (statutory, company and private pensions).

For this purpose, the German Pension Fund (*Deutsche Rentenversicherung Bund*) shall establish a pension information portal, involving the various stakeholders to ensure that it aggregates relevant pension information, and, through testing and development, it ensures that the portal is user friendly.

The implementation of the measure shall be completed by 31 August 2026.

## **G.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
86	4.1.1 Investment programme 'Childcare-financing' 2020/21: special fund 'Child Day-care Expansion'	Milestone	Entry into force of the Childcare Financing Act and the Federal Financial Assistance Act and of the implementing regulations at Länder level	Provision in the law indicating the entry into force of the Childcare Financing Act and the Federal Financial Assistance Act as well as the Länder-specific implementing regulations	-	-	-	Q4	2020	Amendments to the Childcare Financing Act and the Federal Financial Assistance Act (KitaFinHG) for the extension of day-care for children have entered into force. The Länder have adopted the federal rules and made them more specific in their Länder regulations.
87	4.1.1 Investment programme 'Childcare-financing' 2020/21: special fund 'Child Day-care Expansion'	Milestone	Publication of interim report in compliance with KitaFinHG	Publication of interim reports containing amount of funding, number of childcare places, type and respective number of investments for equipment in accordance with the legal provisions and the relevant coordination discussions between the federal government and the Länder.	-	-	-	Q4	2023	An interim report on approved and created childcare places and investments in equipment (§ 30 (2) and (3) KitaFinHG) has been published. The relevant Länder have reported to the federal government on the state of implementation, including on funding, number of childcare places, type and respective number of investments for equipment, in accordance with the monitoring and guidance obligations.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
88	4.1.1 Investment programme 'Childcare-financing' 2020/21: special fund 'Child Day-care Expansion'	Target	Final report on the total number of newly funded childcare places in compliance with the KitaFinHG	-	Additional childcare places for children	0	90 000	Q4	2025	The Länder have submitted their final report on implementation after completion of the checks on the use of funds. The report confirms that 90 000 newly funded childcare places for children prior to school entry have been created in child day-care facilities ( <i>Kindertageseinrichtungen</i> ) and child day-care services ( <i>Kindertagespflege</i> ) throughout Germany.
89	4.1.2 Social Guarantee 2021	Milestone	Verification of the average social security contribution rate for year 2021	Total social security contribution rate calculated and it is established not having exceeded 40%	-	-	-	Q4	2021	The total social security contribution rate shall be calculated for year 2021 and it is established that this has not increased above 40%. The total social security contribution rate shall be calculated as the sum of the contribution rates for pensions, unemployment, long-term care ( without childless supplement) and healthcare insurance including the average additional contribution rate under § 242a Social Code V (SGB V).
90	4.1.3 Apprenticeship support	Milestone	Entry into force of the revised funding guidelines for the federal programme <i>Ausbildungsplätze sichern</i>	Publication of revised funding guidelines	-	-	-	Q2	2021	The revised funding guidelines covering the whole federal programme <i>Ausbildungsplätze sichern</i> have been published in the Federal Gazette ( <i>Bundesanzeiger</i> ), reflecting the cabinet decision taken on 17 March 2021.
91	4.1.3 Apprenticeship support	Target	Outflow of support for the federal programme <i>Ausbildungsplätze sichern</i>	-	EUR million	0	282	Q4	2022	At least EUR 282 000 000 have been disbursed to recipients under the programme.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
92	4.1.3 Apprenticeship support	Target	Award decisions on applications for the federal programme <i>Ausbildungsplätze sichern</i>	-	Number of eligible applications having been awarded funding	0	70 000	Q4	2022	At least 70 000 eligible applications have been awarded funding under the programme.
93	4.1.4 Educational support for students with a learning backlog	Milestone	Agreement between the Federal Government and the Länder to provide learning support for learners with pandemic learning backlogs.	Länder and the Federal Government adopt the funding agreement	-	-	-	Q2	2021	The Federal Government and Länder have adopted the funding agreement setting out the conditions of funding learning support.
94	4.1.4 Educational support for students with a learning backlog	Target	1 000 000 students have received learning support	-	Number of pupils receiving support under the programme	0	1 000 000	Q3	2022	At least 1 000 000 pupils have received learning support as part of the programme, as proved by the monitoring report.
95	4.1.5 Digital Pension Overview	Milestone	Entry into force of the Digital Pension Overview Act	Provision in the law indicating the entry into force of the law on the Digital Pension Overview.	-	-	-	Q1	2021	The law on the Digital Pension Overview (RentÜG) has been published in the Federal Gazette ( <i>Bundesanzeiger</i> ) and has entered into force.
96	4.1.5 Digital Pension Overview	Milestone	Completion of the development and first operational phase.	The portal is available and has been tested in a first operational phase. The	-	-	-	Q4	2023	The coordination body responsible for the digital pension overview ( <i>ZfDR, Zentrale Stelle für die Digitale Rentenübersicht</i> ) has provided an evaluation report according to § 6 (3) RentÜG of the first operational phase,

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
				evaluation report on the first operational phase has been submitted by ZfDR to the steering committee for further discussion.						assessing the achieved level of usability and implementability for pension providers. The report shall clearly identify possible actions for improvements and new functionalities to be further discussed in the steering committee.
97	4.1.5 Digital Pension Overview	Milestone	Completion of the implementation of improvements deduced from practical experience during the first operational phase.	Improvements and where appropriate new functionalities have been implemented following the evaluation report and consultation with the steering committee. The Digital Pension Overview covers a majority of existing pension entitlements regarding those pension providers that are generally obligated to participate by law.	-	-	-	Q1	2026	Following the submission of the evaluation report, concrete targets shall be established on the frequency of use and on the coverage of pension entitlements. The target on the frequency of use and the target on coverage on pension entitlements is either met by Q1 2026 or further action to improve user acceptance is taken, for example by adopting a regulation to set the reference date for the obligation for pension providers to participate in the Digital Pension Overview, covering pension providers who are required to provide annual benefit statements to their customers.

## **H. COMPONENT 5.1: Strengthening of a Pandemic-resilient Healthcare System**

This component of the German recovery and resilience plan aims to increase the resilience of the healthcare sector, including to shocks induced by pandemics. The specific objectives of the measures under this component are the digitalisation of the public health offices, which play an important role in pandemic management in Germany, the digitalisation of hospitals to increase their efficiency and resilience, and research and development of vaccines against SARS-CoV-2.

The component supports addressing the Country Specific Recommendation to mobilise adequate resources and strengthen the resilience of the healthcare system, including by deploying e-health services (Country Specific Recommendation 1 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **H.1. Description of the reforms and investments for non-repayable financial support**

#### ***5.1.1 Reform: Strengthening of the digital and technical resources of the public health service***

The objective of the measure is to modernise the public health offices, in particular through increasing the level of their digitalisation and interoperability of IT systems to connect public health offices with other actors in the public healthcare system. The measure consists of a nationwide rollout of an IT system to track pandemic developments, and increasing the overall level of digital maturity in the public health offices over the next years.

The implementation of the measure shall be completed by 31 August 2026.

#### ***5.1.2 Investment: Programme to future-proof hospitals***

The objective of the measure is to enable hospitals to invest within a short timeframe in their modernisation, including through digitalisation. The measure consists of establishing a fund, from which hospitals may receive financial support for a number of modernisation projects, for instance to improve their digital infrastructure, emergency capacities, tele-medicine, robotics, or IT and cyber security.

The implementation of the measure shall be completed by 31 August 2026.

#### ***5.1.3 Investment: Special programme to accelerate research and development of urgently needed vaccines against SARS-CoV-2***

The objectives of the measure are to support the research and development of vaccines against SARS-CoV-2 in order to reduce the severity and duration of the pandemic. The investment consists of financial support to German vaccine producers to increase their development and production capacity, and to increase patient numbers for clinical trial phases. This aims to strengthen the pharmaceutical/biotech sector in Germany in the long term and provide a broader base and flexibility to respond to the current and future pandemics.

The implementation of the measure shall be completed by 31 December 2022.

## H.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
98	5.1.1 Strengthening of the digital and technical resources of the public health service	Target	Comprehensive nationwide use of the German Electronic Reporting and Information System for Infection Protection ( <i>Deutsches Elektronisches Melde- und Informationssystem für den Infektionsschutz, DEMIS</i> )	-	Percentage of public health offices using DEMIS	0	100	Q1	2021	The competent authorities of the Länder are using DEMIS to register persons in the context of SARS-CoV-2 and to discharge the reporting requirements under § 8 (1) (2) of the Infection Protection Law <sup>8</sup> .
99	5.1.1 Strengthening of the digital and technical resources of the public health service	Target	Progress of public health offices towards digital maturity	-	Percentage	0	35	Q1	2024	At least 35% of public health offices have improved their digital maturity by at least two levels by the end of Q4 2023 in at least two categories in the employed digital maturity system, as compared to their digital maturity level of 2021.
100	5.1.1 Strengthening of the digital and technical	Target	Progress of public health offices towards digital maturity	-	Percentage	35	70	Q3	2026	At least 70% of public health offices have improved their digital maturity by at least two levels by Q3 2026 in at least three categories in the employed digital

<sup>8</sup> Gesetz zur Verhütung und Bekämpfung von Infektionskrankheiten bei Menschen (Infektionsschutzgesetz – IfSG), 20 July 2020 (BGBl. I p. 1045)

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	resources of the public health service									maturity system, as compared to their digital maturity level of 2021.
101	5.1.2 Programme to future-proof hospitals	Target	Applications submitted to the Federal Office for Social Security for at least EUR 2 700 000 000	-	Volume of funding (in million euro) for applications submitted to the Federal Office for Social Security	0	2 700	Q2	2022	Of the EUR 3 000 000 000 allocated to the measure, applications of at least EUR 2 700 000 000 in volume have been submitted to the Federal Office for Social Security for hospitals' projects under the Programme to future-proof hospitals by the deadline for the applications of 31 December 2021. By 31 March 2022, the Federal Office for Social Security shall publish the requested volume of funding.
102	5.1.2 Programme to future-proof hospitals	Target	Increase in the digital maturity of at least 35% of hospitals	-	Percentage of hospitals with increased digital maturity	0	35	Q3	2025	At least 35% of the hospitals whose application for funding under the Programme to future-proof hospitals was approved have increased their digital maturity in at least two categories related to the Programme to future-proof hospitals by at least two digital maturity levels in the employed digital maturity system compared with the evaluation from 30 June 2021.
103	5.1.2 Programme to future-proof hospitals	Target	Implementation of at least 75% of the relevant digitalisation projects	-	Percentage of completed digitalisation projects	0	75	Q3	2026	At least 75% of the digitalisation projects which have received funding under the Programme to future-proof hospitals and which, if not fully implemented by 31 December 2024, would lead to financial reductions

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
										established under the Hospital Future Act ( <i>Krankenhauszukunftsgesetz</i> <sup>9</sup> ), have been fully implemented by 31 August 2026.
104	5.1.3 Special programme to accelerate research and development of urgently needed vaccines against SARS-CoV-2	Milestone	Approval of a first vaccine against SARS-CoV-2 by the regulatory authority	Recommendation for authorisation by the European Medicines Agency of a vaccine against SARS-CoV-2 developed by one of the three companies supported	-	-	-	Q4	2020	Approval recommended by the European Medicines Agency for a vaccine against SARS-CoV-2 developed by one of the three companies supported through measure 5.1.3.
106	5.1.3 Special programme to accelerate research and development of urgently needed vaccines against SARS-CoV-2	Target	Disbursement of at least EUR 561 450 000 to vaccine research supported by this special programme	-	EUR million	0	561.45	Q3	2022	Of the EUR 591 000 000 allocated to the measure, at least EUR 561 450 000 (95% of the total funding) have been disbursed to the recipients for vaccine research.
107	5.1.3 Special programme to accelerate research and development of	Milestone	End of programme	Completion and conclusive audit of the utilisation reports and of all	-	-	-	Q4	2022	All final reports on the utilisation of funds have been submitted and audited.

<sup>9</sup> Gesetz für ein Zukunftsprogramm Krankenhäuser (*Krankenhauszukunftsgesetz – KHZG*), 23 October 2020 (BGBl. I p. 2208).

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	urgently needed vaccines against SARS-CoV-2			final reports						

## **I. COMPONENT 6.1: Modern Public Administration**

The component of the German recovery and resilience plan addresses the challenges of modernising Germany's public administration. The objective of the component is to advance the digitalisation of the public administration decisively and reduce the administrative burden for companies and citizens when interacting with the government.

The component supports addressing the Country Specific Recommendation on improving digital public services across all levels (Country Specific Recommendation 2 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **I.1. Description of the reforms and investments for non-repayable financial support**

#### ***6.1.1 Reform: European identity ecosystem***

The objective of the measure is to create a digital, open and secure ecosystem that establishes and verifies identities and personal documents online, without reliance on major private platforms, this includes personal IDs and documents such as diplomas. Additionally, the objective of the measure is to create a system with the aim to also be open to other types of applications as well as verifying the identity of companies and devices within the *Internet of things*. Lastly, the objective of the measure is to have the ecosystem be open for use by the administrations and the private sector in the EU and beyond.

The measure consists of developing technical components and standards, supporting interoperability efforts to other initiatives, providing a sovereign ID and catalysing the ecosystem by developing initial use cases. The first applications to be developed are subsidised and steered by the government, but as the ecosystem progresses, the aim is that the private sector shall develop applications independently.

The implementation of the measure shall be completed by 31 August 2026. The ecosystem is expected to continue to be implemented after this point.

#### ***6.1.2 Reform: Digitalisation of the administration – implementation of the Online Access Act***

The objective of the measure is to make public services digitally available by 2022, in line with the Online Access Act<sup>10</sup>. Given Germany's federal system, public services are offered by both the federal level and the State governments and local authorities, which increases the level of required coordination substantially.

The measure consists of digitalising 100 service bundles that fall within the implementing competency of the Länder, and 115 service bundles within the competency of the Federal Government.

The implementation of the measure shall be completed by 30 June 2025.

#### ***6.1.3 Reform: Digitalisation of the administration –modernisation of registers***

The objective of the measure is to enable a simple, secure and digital exchange of data stored in various German registers. This shall allow citizens and companies to

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<sup>10</sup> *Onlinezugangsgesetz*, 14 August 2017 (BGBl. I p. 3122, 3138).

submit their data only once, instead of having to submit the same data to different authorities multiple times.

The measure consists of the development of the necessary technical architecture and connecting at least 6 of the most important registers and another 12 registers, belonging to the most important registers, are ready to be connected to the single infrastructure via the implementation of the National Once-Only Technical System (NOOTS). To reach these objectives and steer the project, a register modernisation authority (*Registermodernisierungsbehörde*) shall be established.

The implementation of the measure shall be completed by 30 June 2026.

## **I.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
108	6.1.1 European identity ecosystem	Target	Launch of one pilot project for digital hotel check-in	-	Number of hotels with digital check-in	0	100	Q3	2021	A pilot project has been put into operation, allowing employees of four large German companies to check-in digitally to three large German hotel chains, with at least 100 hotels participating. The pilot provides first technical components as well as insights for the further development of the ecosystem.
109	6.1.1 European identity ecosystem	Target	Completion of additional government-supported application cases in addition to the pilot hotel check-in.	-	Number of application cases	1	5	Q4	2024	Following the first pilot application case, the implementation of at least four additional application cases (for example opening of bank accounts online, access management, online conclusion of telephone contracts or opening of customer accounts in e-commerce) has been completed, each with at least 10 000 users. The eID function for identification and authentication has been integrated into application cases and, where necessary, new interfaces have been implemented.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
110	6.1.1 European identity ecosystem	Target	Provision of additional application cases beyond the pilots with little or no government support for their implementation	-	Number of application cases	5	10	Q4	2025	The system has been further scaled up through the implementation of increasingly less government-supported application cases, and at least ten application cases exist with at least 10 000 users each. At least two initiatives or proprietary decentralised identity solutions (for example proof of vaccination) are interoperable with the system.
111	6.1.2 Digitalisation of the administration—Implementation of the Online Access Act (OZG)	Target	Completion of individual agreements between the lead department and the lead Land	-	Number of individual agreements	0	14	Q3	2021	At least 14 individual agreements to implement the Online Access Act have been concluded between the lead department and the lead federal state, in which the operational arrangements are defined. The implementation shall be in accordance with the <i>one-for-all</i> principle. The individual agreements provide the legal basis for cooperation and work-based implementation.
112	6.1.2 Digitalisation of the administration—Implementation of the Online Access Act (OZG)	Target	Go-Lives of online access act service bundles ( <i>Onlinezugangsgesetz-Leistungen</i> )	-	Number of service bundles going live	0	70	Q4	2021	At least 70 public service bundles are live (available online to the general public).

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
113	6.1.2 Digitalisation of the administration— Implementation of the Online Access Act (OZG)	Target	Widespread digitalisation of administrative services	-	Number of service bundles implemented	0	215	Q4	2022	At least 100 of the most important administrative services of the Länder are implemented as one-for-all services, as well as an additional 115 Federal Government services.
113A	6.1.2 Digitalisation of the administration— Implementation of the Online Access Act (OZG)	Target	Roll-out of the services of the Länder to nationwide coverage		Number of service bundles available nationwide	0	100	Q2	2025	At least 100 of the most important administrative services of the Länder are implemented nationwide (in at least 50% of the Länder) as one-for-all services.
114	6.1.3 Digitalisation of the administration— modernisation of registers	Milestone	Completion of pilot projects to test pilot registers	End of pilot and assessment document compiled	-	-	-	Q4	2023	Completion of a pilot project to test pilot registers, in accordance with the implementation of the Identification Number Act ( <i>Identifikationsnummerngesetz</i> <sup>11</sup> ) and the Register Modernisation Act ( <i>Registermodernisierungsgesetz</i> <sup>12</sup> ).
115	6.1.3 Digitalisation of the administration —modernisation of registers	Milestone	Completion of the implementation of the uniform architecture for the advancement of the only-once principle	Central architectural components are ready to be connected to proprietary	-	-	-	Q4	2025	The standardised technical architecture is ready to be connected with priority registers for the implementation of the once-only principle. The legal bases for connecting priority registers shall be in place. Governance (multi-project management) to control the connection

<sup>11</sup> *Identifikationsnummerngesetz*, 28 March 2021 (BGBl. I p. 591)

<sup>12</sup> *Registermodernisierungsgesetz*, 28 March 2021 (BGBl. I p. 591)

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
				registers						across registers shall be in place.
116	6.1.3 Digitalisation of the administration —modernisation of registers	Target	Priority connection of user-based registers to the once-only target architecture	-	Number of priority registers	0	18	Q2	2026	At least 6 of the prioritised registers are connected to a single infrastructure (NOOTs) to implement the once-only principle and another 12 priority registers are ready to be connected to the established single infrastructure, each capable of storing and processing the identification number.

## **J. COMPONENT 6.2: Reduction of barriers to investment**

This component of the German recovery and resilience plan addresses barriers to investment, which have been slowing public and private investment in Germany. Reducing barriers to investment enables the timely spending of funds and facilitates investment in the green and digital transition. Furthermore, it increases Germany's resilience to economic shocks and contributes to stimulating domestic demand, with potential to narrow the current account surplus, which has been repeatedly identified as a macroeconomic imbalance for Germany.

The component supports addressing the Country Specific Recommendations on achieving a sustained upward trend in private and public investment, and to enhance investment (Country Specific Recommendation 1 in 2019 and Country Specific Recommendation 1 in 2020).

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the DNSH Technical Guidance (2021/C58/01).

### **J.1. Description of the reforms and investments for non-repayable financial support**

#### ***6.2.1 Reform: Joint programme of the Federal Government and the Länder for an efficient administration that benefits citizens and businesses***

The objectives of the measure are to make the administration more efficient, future-oriented and innovation-inducing. It aims, among other things, to accelerate planning and approval procedures, to further standardise the requirements faced by lower levels of government for requesting financial subsidies in order to ensure a faster outflow of funds, to accelerate housing construction, and to increase the number of successful transfers of business ownership to the next generation.

The measure consists of establishing a working group comprised of the federal level and the Länder, which shall develop proposals to improve the efficiency of public administration in 11 areas (as detailed in the milestones) that shall be implemented by 2025.

The implementation of the measure shall be completed by 31 March 2025.

#### ***6.2.2 Reform: Expansion of consulting services of PD - Berater der öffentlichen Hand GmbH***

The objective of the measure is to increase public investment activity, especially on the municipal level, by enabling municipalities and other public entities to better integrate public funding programmes into their investment projects, as well as by improving the implementation of IT investments in schools.

The measure consists of two submeasures, to be executed by PD - Berater der öffentlichen Hand GmbH (PD), a public-sector consulting firm owned mostly by the federal state and the Länder. The first submeasure aims to support municipalities and other public entities in navigating the funding programme landscape, as well as to improve the calibration of public funding programmes to the needs of municipalities and other public entities. The second submeasure concerns the digitalisation of schools, for which PD shall develop consulting concepts and advise school authorities.

The implementation of the measure shall be completed by 31 August 2026.

### **6.2.3 Reform: Acceleration of planning and approval procedures in the transport sector**

The objective of the measure is to substantially accelerate the planning and approval procedures in the transport sector. This aims to increase the capacity of transport routes, as well as facilitating the expansion of climate-friendly modes of transport in order to reach Germany's climate goals.

The measure consists of implementing and evaluating three laws, the investment acceleration act (*Investitionsbeschleunigungsgesetz*<sup>13</sup>), the most recent planning acceleration act, (*Planungsbeschleunigungsgesetz III*<sup>14</sup>) and the measure-act-preparatory-act (*Maßnahmengesetzvorbereitungsgesetz*<sup>15</sup>).

The implementation of the measure shall be completed by 31 August 2026.

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<sup>13</sup> *Gesetz zur Beschleunigung von Investitionen*, 03 December 2020 (BGBl. I 2020 p. 2694).

<sup>14</sup> *Gesetz zur weiteren Beschleunigung von Planungs- und Genehmigungsverfahren im Verkehrsbereich*, 03 March 2020 (BGBl. I 2020 p. 433).

<sup>15</sup> *Gesetz zur Vorbereitung der Schaffung von Baurecht durch Maßnahmengesetz im Verkehrsbereich*, 22 March 2020 (BGBl. I 2020 p. 640).

## **J.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
117	6.2.1 Joint programme of the Federal Government and the Länder for an efficient administration that benefits citizens and businesses	Milestone	First progress report for the Conference of Minister-Presidents (MPK)	First progress report published	-	-	-	Q2	2021	The first report to the heads of government of the Federal Government and the Länder has been published and shall encompass a list of those measures from the Federal/Länder programme of measures which shall be further examined and processed. The starting point of the report are the following eleven areas of action: —Accelerating the outflow of grants; —Identifying obstacles to the outflow of grants and reporting them to the Federal Ministry of Finance; —Improving the financial support of municipalities; —Streamlining and making grants from the Federal Government to the Länder and municipalities as uniform as possible; —Improving transfer of business ownership through a dedicated task force; —Revising the model building code ( <i>Musterbauordnung</i> ) <sup>16</sup> ; —Strengthening planning and approval authorities; —Improving recruitment of skilled staff and ensuring an improved staffing situation; —Accelerating planning, in particular rail, local public and private transport;

<sup>16</sup> *Musterbauordnung* – zuletzt geändert durch Beschluss der Bauministerkonferenz, 27 September 2019 (<https://www.bauministerkonferenz.de/verzeichnis.aspx?id=991&o=75909860991>)

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
										<ul style="list-style-type: none"> <li>— Streamlining the consultation process and public participation procedures and simplifying participation through digitalisation;</li> <li>— Further accelerating planning and approval processes.</li> </ul>
118	6.2.1 Joint programme of the Federal Government and the Länder for an efficient administration that benefits citizens and businesses	Milestone	Second progress report for the Conference of Minister-Presidents	Second progress report published	-	-	-	Q2	2022	The published progress report shall identify the measures that shall be implemented under the leadership of the Federal Government and/or the Länder. The progress report shall contain the following elements: The name of the measure; status (started, completed, not yet started); next milestone; expected end date.
119	6.2.1 Joint programme of the Federal Government and the Länder for an efficient administration that benefits citizens and businesses	Target	Completion of measures in the progress report	-	Percentage of measures completed	0	80	Q1	2025	Completion of the implementation of at least 80% of the measures identified in the second progress report.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
120	6.2.2.1 Expansion of consulting services of <i>PD</i> : Effective Funding Support Management	Milestone	Start of PD consulting services for selected funding programmes	Agreement with the federal ministries on selection of funding programmes	-	-	-	Q4	2022	Suitable funding programmes have been identified by PD jointly with the relevant federal ministries, and the consulting project to improve the calibration of these funding programmes to the needs of the recipients has started.
121	6.2.2.1 Expansion of consulting services of <i>PD</i> : Effective Funding Support Management	Target	Consultations carried out	-	Number of consultations carried out	0	100	Q3	2024	100 consultations with funding programme beneficiaries, which may also be part of a more encompassing investment advisory service, have been completed or are in the process of being carried out.
122	6.2.2.1 Expansion of consulting services of <i>PD</i> : Effective Funding Support Management	Target	Concepts for revision of funding programmes developed	-	Number of revision concepts	0	4	Q3	2024	Revision concepts have been developed for four funding programmes which also contain insight to inform the design of other programmes.
123	6.2.2.1 Expansion of consulting services of <i>PD</i> : Effective Funding Support Management	Milestone	Information dissemination on lessons learned	Funding Guide of the Federal Ministry of Finance published	-	-	-	Q3	2026	Publication of a Federal Ministry of Finance Funding Guide on how to design public funding programmes for public infrastructure measures, to enable an improved outflow of funds.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
124	6.2.2.1 Expansion of consulting services of PD: Effective Funding Support Management	Target	Consultations carried out	-	Number of consultations carried out	100	400	Q3	2026	At least 400 consultations with funding programme beneficiaries, which may also be part of a more encompassing investment consulting project, have been completed or are in the process of being carried out (target includes consultations completed as set out in target 121).
125	6.2.2.2 Expansion of consulting services of PD: School IT consultancy	Target	Roll-out and pilot consulting projects on school IT	-	Number of consulting projects carried out	0	5	Q4	2022	At least five consulting projects for school authorities on school IT have started.
126	6.2.2.2 Expansion of consulting services of PD: School IT consultancy	Milestone	Development of model concepts	Model IT concept	-	-	-	Q3	2024	A model IT concept and implementation programme have been developed as evidenced by corresponding PD project deliverables.
127	6.2.2.2 Expansion of consulting services of PD: School IT consultancy	Target	School IT consulting projects	-	Number of consulting projects carried out	5	50	Q3	2024	A total of 50 school authorities' consultations on school IT, which may be part of a more encompassing investment consulting project, have been completed or are in the process of being carried out (target includes the previous target).
128	6.2.3.1 Acceleration of planning and approval procedures in the transport	Milestone	Entry into force of the Investment Acceleration Act, the Planning Acceleration Act III, and the	Provision in the law indicating the entry into force of the Investment Acceleration	-	-	-	Q4	2020	The Investment Acceleration Act, the Planning Acceleration Act III, and the measure-act-preparatory-act ( <i>Investitionsbeschleunigungsgesetz, Planungsbeschleunigungsgesetz III, Maßnahmengesetzvorbereitungsgesetz</i> )

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	sector		measure-act-preparatory-act	Act, the Planning Acceleration Act III, and the measure-act-preparatory-act.						have entered into force.
129	6.2.3.1 Acceleration of planning and approval procedures in the transport sector	Milestone	Evaluation of legislative changes	Evaluation of the three laws	-	-	-	Q3	2026	An extensive evaluation of the adopted legislative measures (see milestone 128) has been initiated, based on an evaluation concept that has been developed, and data collection has started. The evaluation shall, among other evaluation dimensions, include a comparison of the length of planning and approval procedures in the transport sector before and after the adoption of the measures and consider other qualitative and quantitative indicators.

## K. COMPONENT 7.1: REPowerEU

The objective of the REPowerEU component of the German recovery and resilience plan is to support the energy transition by integrating security of supply, affordability, resource conservation and environmental compatibility with innovative and intelligent climate protection. The component aims to address the contribution of the heating and cooling sector to greenhouse gas emissions by promoting the decarbonization of buildings through energy efficiency measures. . The component also aims to promote climate-friendly freight transport, targeting a substantial reduction in emissions by incentivising the adoption of electrically powered vehicles and supporting the necessary infrastructure development. In addition, facilitating planned hydrogen infrastructure projects is identified as crucial for meeting decarbonization goals. The expansion of wind energy, both offshore and on land, is further introduced to reduce dependency on fossil fuel imports and accelerate progress towards climate neutrality. Legislative reforms are proposed to streamline permitting procedures, ensuring sustainable and responsible use of renewable energy resources.

The REPowerEU component contributes to addressing Country-Specific Recommendations, in particular CSR 2022.4 and CSR 2023.4.

Several measures are expected to have an indirect cross-border impact, including the scale-up of the federal funding for energy-efficient buildings, which aims to reduce the reliance on fossil fuels. Additionally, a digital platform to accelerate application and approval procedures could eventually facilitate the access of other EU companies to the German market by simplifying administrative processes and therefore reduce the reliance on fossil fuels, as the platform is intended to speed up the establishment of a core hydrogen grid. Direct cross-border impacts are also anticipated with the reform of the *Wind Energy on Land Act* and the *Offshore Wind Energy Act*, as the additional electricity obtained from wind energy can have an impact on the demand-supply balance in Germany and across several countries and affect cross-border flows.

It is expected that no measure in this component does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852, taking into account the description of the measures and the mitigating steps set out in the recovery and resilience plan in accordance with the ‘do no significant harm’ Technical Guidance (2021/C58/01).

### **K.1. Description of the reforms and investments for non-repayable financial support**

#### ***7.1.1 Scaled-up investment: Building renovation: federal funding for energy-efficient buildings***

The objective of this measure is to scale up investment 1.3.3 ‘Building renovation: federal funding for energy-efficient buildings’ under Component 1.3. The scaled-up part of the measure shall support 190 000 individual renovation measures, in addition to those financed from the non-repayable support as part of the investment 1.3.3.

The implementation of the measure shall be completed by 30 August 2026.

***7.1.2 Investment: Support programme for light- and heavy-duty zero-emission transport***

The objective of this measure is to speed up the penetration of zero-emission road transport. The measure shall consist in the support for the purchase of zero-emission commercial vehicles of the EC vehicle classes N1, N2 and N3 with electric drives according to Section 2 Numbers 2 and 4 of the Electric Mobility Act (Elektromobilitätsgesetz , 'EmoG') , i.e. battery and fuel-cell electric vehicles only. Hybrid electric vehicles ('plug-ins') shall not be supported under the measure. The measure shall also support the refueling and charging infrastructure necessary for the operation of the category of supported vehicles, for a maximum of 80 % of the eligible costs.

The implementation of the measure shall be completed by 30 August 2026.

***7.1.3 Investment: Digital end-to-end platform to accelerate planning and approval***

The objective of this measure is to accelerate the planning and approval of energy infrastructural projects through a digital end-to-end platform. In particular, the measure's objective is to speed up building Germany's core hydrogen grid through the use of this platform, as for the first time, it enables companies to submit applications for authorisations for the hydrogen core network digitally. The platform shall centralise, standardise and speed up the process for applicants and the approval authority. Moreover, the measure shall address back-office bottlenecks through a workflow system to process applications.

The implementation of the measure shall be completed by 31 December 2025.

***7.1.4 Reform: Wind Energy on Land Act***

The objective of this measure is to accelerate the deployment of onshore wind energy power plants.

The act shall define each federal state (*Land*)'s land-use target for wind energy. The act shall also contain provisions to change the Construction Code to enable federal states (*Länder*) to designate additional areas as suitable for onshore wind generation. The implementation of the reform shall be monitored by a joint committee of the federal level and federal states (*Länder*) (*EEG-Bund-Länder Kooperationsausschuss*).

The implementation of the measure shall be completed by 31 March 2023.

### ***7.1.5 Reform: Offshore Wind Energy Act***

The objective of this measure is to accelerate the deployment of offshore wind energy power plants.

The reform shall increase the expansion targets for offshore wind energy in Germany from 20 GW to at least 30 GW by 2030, and to reach 40 GW by 2035 and 70 GW by 2045 (previously: 40 GW by 2040). It shall also contain provisions to streamline planning and approval procedures and bundle the review of applications.

The implementation of the measure shall be completed by 31 March 2023.

## **K.2. Milestones, targets, indicators, and timetable for monitoring and implementation for non-repayable financial support**

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
130	Investment 7.1.1 (scale-up): Building renovation: federal funding for energy-efficient buildings	Target	Scaled-up final target for completed individual renovation measures for energy-efficient buildings		Completed individual renovation measures	145 000	335 000	Q2	2026	At least 335 000 individual renovation measures have been completed in total.
131	Investment 7.1.2: Support programme for light- and heavy-duty zero-emission transport	Target	Interim target for for registration of zero-emission vehicles		Zero-emission commercial vehicles	0	670	Q4	2024	670 zero-emission commercial vehicles, including at least 190 vehicles of class N3, have been registered.
132	Investment 7.1.2: Support programme for light- and	Target	Final target for registered zero-emission		Zero-emission commercial vehicles	670	1100	Q2	2026	1 100 zero-emission vehicles, including at least 490 vehicles of class N3, have been registered.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	heavy-duty zero-emission transport		vehicles							
133	Investment 7.1.2: Support programme for light- and heavy-duty zero-emission transport	Target	Entry into operation of recharging and refueling stations		Recharging and refuelling stations	0	1357	Q2	2026	1 352 electric charging stations and 5 hydrogen refuelling stations have been put into operation.
134	Investment 7.1.3: Digital end-to-end platform to accelerate planning and approval	Milestone	Signature of contracts	Commitment of funds through signature of project contracts				Q3	2025	Contracts for developing the platform have been signed and entered into force, committing at least 95% of the total envelope for this measure (EUR 94 500 000) including 95 % of the costs designated for AI developments (EUR 38 285 000).
135	Investment 7.1.3: Digital end-to-end	Milestone	Launch of once-only permitting	Launch of website containing a				Q4	2025	The platform enables companies to submit applications for

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
	platform to accelerate planning and approval		platform	workflow system and operating at once-only standard						authorisations for the hydrogen core network digitally. For this service, the platform fulfils the once-only standard (national maturity level 4 according to Decision 2020/20 of the IT Planning Council). Moreover, a workflow system is in place to process applications, and automated completeness checks of applications and draft justifications for the approval decision are in place using (a) large language model(s).
136	Reform 7.1.4: Wind Energy on Land Act	Milestone	Entry into force of the Wind Energy on Land Act (Wind-an-Land -	Provision in the legal act indicating the entry into force of the legal act				Q1	2023	The Wind Energy on Land Act (Wind-an-Land -Gesetz) has entered into force.

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name	Qualitative indicators (for milestones)	Quantitative indicators (for targets)			Indicative timeline for completion		Description of each milestone and target
					Unit of measure	Baseline	Goal	Quarter	Year	
			Gesetz)							
137	Reform 7.1.5: Offshore Wind Energy Act	Milestone	Entry into force of the Offshore Wind Energy Act (Wind-auf-See-Gesetz)	Provision in the legal act indicating the entry into force of the legal act				Q1	2023	The Offshore Wind Energy Act (Wind-auf-See-Gesetz) has entered into force.

## Estimated total cost of the recovery and resilience plan

The estimated total cost of the recovery and resilience plan of Germany, including the REPowerEU chapter, is EUR 32 344 275 666 . The estimated total costs of the REPowerEU chapter of Germany is EUR 2 444 838 075.

## SECTION 2: FINANCIAL SUPPORT

### 1. Financial contribution

The instalments referred to in Article 2(2) shall be organised in the following manner:

#### 1.1 First instalment (non-repayable support):

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
1	1.1.1 Hydrogen projects within the framework of IPCEIs	Milestone	Completion of expression of interest procedure
7	1.1.2 Support programme for decarbonisation in industry	Milestone	Entry into force of funding guideline ( <i>Förderrichtlinie</i> ) for decarbonisation in industry
11	1.1.3 Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference	Milestone	Completion of expression of interest procedure for climate change contracts
14	1.1.4 Project-related climate protection research	Target	Approval of applications for support of climate-related research projects
17	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Milestone	Publication of the competition “Idea Competition ‘Hydrogen Republic Germany’” (Förderaufruf zum Ideenwettbewerb „Wasserstoffrepublik Deutschland“)
22	1.2.1 Support for the construction of charging infrastructure	Milestone	Entry into force of funding guidelines
25	1.2.2 Funding for the development of electro-mobility	Milestone	Entry into force of the funding guidelines
29	1.2.3 Support for the replacement of the private vehicle fleet	Target	Support for the purchase of 240 000 electric vehicles
31	1.2.4 Extension of the initial registration period for granting the ten-year tax exemption for purely electric vehicles	Milestone	Entry into force of the Seventh Motor Vehicle Tax Amendment Act
33	1.2.5 Support for purchases of buses with alternative propulsion	Milestone	Publication of funding guidelines

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
36	1.2.6 Support to promote alternative rail propulsion	Milestone	Entry into force of the funding guidelines
39	1.2.7 Promotion of the industries involved in hydrogen and fuel cell applications in transport	Milestone	Entry into force of amendment extending existing supporting guidelines ( <i>Förderrichtlinien</i> ) of the National Hydrogen and Fuel Cell Technology Innovation Programme (NIP) (or if not sufficiently covered by existing supporting guidelines, entry into force of new supporting guidelines).
42	1.3.1 Support programme for the development of a climate-friendly timber construction sector	Milestone	Funding guidelines on the promotion of climate-friendly timber construction
46	1.3.3 Building renovation: federal funding for energy-efficient buildings	Milestone	Funding guidelines for the support of energy-efficient renovation of buildings
52	2.1.2 IPCEI Microelectronics and Connectivity	Milestone	Content design of the planned IPCEI
59	2.2.1 Vehicle manufacturers/suppliers investment programme	Milestone	Publication of all funding guidelines
62	2.2.2 Federal programme 'Building further CET networks'	Milestone	Publication of the funding guidelines
65	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Target	Launch of research projects
70	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of 'Digital Rail Germany'	Milestone	Signature of the financing agreement for the 'fast track' programme between the Federal Government and Deutsche Bahn
71	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of 'Digital Rail Germany'	Milestone	Interim report on implementation
72	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of 'Digital Rail Germany'	Target	Successful completion of pilot projects
73	3.1.1 Investment programme for teacher devices	Milestone	Administrative agreement
79	3.1.3 Educational centres of excellence	Milestone	Entry into force of the first funding guidelines and call for tenders for a project-executing agency for the overall programme
83	3.1.4 Modernisation of the Federal Armed Forces' educational and	Milestone	Project contract signed

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
	training facilities		
86	4.1.1 Investment programme ‘Childcare-financing’ 2020/21: special fund ‘Child Day-care Expansion’	Milestone	Entry into force of the Childcare Financing Act and the Federal Financial Assistance Act and of the implementing regulations at <i>Länder</i> level
89	4.1.2 Social Guarantee 2021	Milestone	Verification of the average social security contribution rate for year 2021
90	4.1.3 Apprenticeship support	Milestone	Entry into force of the revised funding guidelines for the federal programme <i>Ausbildungsplätze sichern</i>
93	4.1.4 Educational support for students with a learning backlog	Milestone	Agreement between the federal government and the Länder to provide learning support for learners with pandemic learning backlogs.
95	4.1.5 Digital Pension Overview	Milestone	Entry into force of the Digital Pension Overview Act
98	5.1.1 Strengthening of the digital and technical resources of the public health service	Target	Comprehensive nationwide use of the German Electronic Reporting and Information System for Infection Protection (Deutsches Elektronisches Melde- und Informationssystem für den Infektionsschutz, DEMIS)
104	5.1.3 Special programme to accelerate research and development of urgently needed vaccines against SARS-CoV-2	Milestone	Approval of a first vaccine against SARS-CoV-2 by the regulatory authority
108	6.1.1 European identity ecosystem	Target	Launch of one pilot project for digital hotel check-in
111	6.1.2 Digitalisation of the administration —Implementation of the Online Access Act (OZG)	Target	Completion of individual agreements between the lead department and the lead federal state ( <i>Bundesland</i> )
112	6.1.2 Digitalisation of the administration— Implementation of the Online Access Act (OZG)	Target	Go-Lives of online access act service bundles ( <i>Onlinezugangsgesetz-Leistungen</i> )
117	6.2.1 Joint programme of the federal government and the Länder for an efficient administration that benefits citizens and businesses	Milestone	First progress report for the Conference of Minister-Presidents (MPK)
128	6.2.3.1 Acceleration of planning and approval procedures in the transport sector	Milestone	Entry into force of the Investment Acceleration Act, the Planning Acceleration Act III, and the measure-act-preparatory-act

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
Instalment amount		EUR 4 344 763 676	

1.2 Second instalment (non-repayable support):

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
2	1.1.1 Hydrogen projects within the framework of IPCEIs	Milestone	Issuance of first grant decisions
12	1.1.3 Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference	Milestone	Funding guideline ( <i>Förderrichtlinie</i> ) for a pilot programme on climate change contracts based on the principle of Carbon Contracts for Difference
18	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Issuance of grant decisions
26	1.2.2 Funding for the development of electro-mobility	Target	Commitment of funds
30	1.2.3 Support for the replacement of the private vehicle fleet	Target	Support for the purchase of another 320 000 electric vehicles
43	1.3.1 Support programme for the development of a climate-friendly timber construction sector	Target	Approval of projects related to the development of climate-friendly timber construction
49	2.1.1 Innovative data policy for Germany	Milestone	Start of projects
53	2.1.2 IPCEI Microelectronics and Connectivity	Target	Launch of first projects
55	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Milestone	Launch of R & D & I projects
63	2.2.2 Federal programme 'Building further CET networks'	Target	Active participation of additional enterprises in CET networks
72A	2.2.4 Promoting the digitalisation of railways by replacing conventional interlocking/fast-track programmes to speed up the roll-out of 'Digital Rail Germany'	Target	Successful completion of final project
74	3.1.1 Investment programme for teacher devices	Target	Disbursement of at least EUR 475 000 000 to the supported projects
76	3.1.2 Education platform	Milestone	Entry into force of the funding guidelines for education platform prototypes and procurement launched
80	3.1.3 Educational centres of excellence	Target	Approval of at least 45 research projects
81	3.1.3 Educational centres of	Milestone	Entry into force of three additional

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
	excellence		funding guidelines
84	3.1.4 Modernisation of the Federal Armed Forces' educational and training facilities	Target	Analysis of educational institutions and identification of their IT needs
91	4.1.3 Apprenticeship support	Target	Outflow of support for the federal programme <i>Ausbildungsplätze sichern</i>
92	4.1.3 Apprenticeship support	Target	Award decisions on applications for the federal programme <i>Ausbildungsplätze sichern</i>
94	4.1.4 Educational support for students with a learning backlog	Target	1 000 000 students have received learning support
101	5.1.2 Programme to future-proof hospitals	Target	Applications submitted to the Federal Office for Social Security for at least EUR 2 700 000 000
106	5.1.3 Special programme to accelerate research and development of urgently needed vaccines against SARS-CoV-2	Target	Disbursement of at least EUR 561 450 000 to vaccine research supported by this special programme
107	5.1.3 Special programme to accelerate research and development of urgently needed vaccines against SARS-CoV-2	Milestone	End of programme
113	6.1.2 Digitalisation of the administration— Implementation of the Online Access Act (OZG)	Target	Widespread digitalisation of administrative services
118	6.2.1 Joint programme of the federal government and the Länder for an efficient administration that benefits citizens and businesses	Milestone	Second progress report for the Conference of Minister-Presidents
120	6.2.2.1 Expansion of consulting services of PD: Effective Funding Support Management	Milestone	Start of PD consulting services for selected funding programmes
125	6.2.2.2 Expansion of consulting services of PD: School IT consultancy	Target	Roll-out and pilot consulting projects on school IT
Instalment amount		EUR 7 522 077 413	

### 1.3 Third instalment (non-repayable support):

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
3	1.1.1 Hydrogen projects within the framework of IPCEIs	Target	Commitment of at least EUR 500 000 000
21A	1.1.6 Federal support for efficient heat networks	Target	Signing of grant decisions
24	1.2.1 Support for the construction of charging infrastructure	Target	Expansion of recharging points in residential buildings

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
27	1.2.2 Funding for the development of electro-mobility	Target	Expansion of municipal and commercial e-mobility fleets
28	1.2.2 Funding for the development of electro-mobility	Target	Completion of electro-mobility preliminary designs
44	1.3.2 Municipal living labs for the energy transition	Target	Approval of 'living labs' projects
60	2.2.1 Vehicle manufacturers/suppliers investment programme	Target	Approval of projects
66	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Milestone	Report on research and transfer outputs
67	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Target	Continuation of projects
77	3.1.2 Education platform	Milestone	Launch of the beta-version of the education platform
87	4.1.1 Investment programme 'Childcare-financing' 2020/21: special fund 'Child Day-care Expansion'	Milestone	Publication of interim report in compliance with KitaFinHG
96	4.1.5 Digital Pension Overview	Milestone	Completion of the development and first operational phase.
99	5.1.1 Strengthening of the digital and technical resources of the public health service	Target	Progress of public health offices towards digital maturity
114	6.1.3 Digitalisation of the administration—modernisation of registers	Milestone	Completion of pilot projects to test pilot registers
136	7.1.4: Wind Energy on Land Act	Milestone	Entry into force of the Wind Energy on Land Act.
137	7.1.5: Offshore Wind Energy Act	Milestone	Entry into force of the Offshore Wind Energy Act.
Instalment amount		EUR 7 059 109 790	

#### 1.4 Fourth instalment (non-repayable support):

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
8	1.1.2 Support programme for decarbonisation in industry	Target	Issuance of grant decisions
21B	1.1.6 Federal support for efficient heat networks	Target	Completion of feasibility studies and transformation plans
30A	1.2.3 Support for the replacement of the private vehicle fleet	Target	Support for the purchase of 399 450 electric vehicles
37	1.2.6 Support to promote alternative	Target	Approval of applications

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
	rail propulsion		
38	1.2.6 Support to promote alternative rail propulsion	Target	Order of rail vehicles with alternative propulsion
47	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Completion of energy-efficient renovations of 10 000 housing units.
48A	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Interim target for completed individual renovation measures
56	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Milestone	Completion of R&D&I projects and launch of large-scale piloting of use cases
64	2.2.2 Federal Programme ‘Building further CET networks’	Target	Revision or redesign of training measures or sub-modules as a result of the work of the CET networks
78	3.1.2 Education platform	Milestone	Final evaluation report with a decision on the future of the education platform
109	6.1.1 European identity ecosystem	Target	Completion of additional government-supported application cases in addition to the pilot hotel check-in.
113A	6.1.2 Digitalisation of the administration— Implementation of the Online Access Act (OZG)	Target	Roll-out of the services of the Länder to nationwide coverage
119	6.2.1 Joint programme of the federal government and the Länder for an efficient administration that benefits citizens and businesses	Target	Completion of measures in the progress report
121	6.2.2.1 Expansion of consulting services of PD: Effective Funding Support Management	Target	Consultations carried out
122	6.2.2.1 Expansion of consulting services of PD: Effective Funding Support Management	Target	Concepts for revision of funding programmes developed
126	6.2.2.2 Expansion of consulting services of PD: School IT consultancy	Milestone	Development of model concepts
127	6.2.2.2 Expansion of consulting services of PD: School IT consultancy	Target	School IT consulting projects
131	7.1.2: Support programme for light- and heavy-duty zero-emission transport	Target	Interim target for for registration of zero-emission vehicles
Instalment amount		EUR 4 953 033 425	

## 1.5 Fifth instalment (non-repayable support):

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
4	1.1.1 Hydrogen projects within the framework of IPCEIs	Milestone	Evaluation of the support programme
5	1.1.1 Hydrogen projects within the framework of IPCEIs	Target	Commitment of EUR 1 500 000 000
6	1.1.1 Hydrogen projects within the framework of IPCEIs	Target	Creation of at least 300 MW of electrolysis capacity
9	1.1.2 Support programme for decarbonisation in industry	Target	Disbursement to the supported projects
10	1.1.2 Support programme for decarbonisation in industry	Target	Reduction of greenhouse gas emissions in industry
13	1.1.3 Pilot scheme for climate action contracts based on the principle of Carbon Contracts for Difference	Target	Disbursement to the supported projects
15	1.1.4 Project-related climate protection research	Target	Disbursement to the supported projects
16	1.1.4 Project-related climate protection research	Target	Completion of supported climate-related research projects
19	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Completion of the supported projects
20	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Disbursement to the supported projects
21	1.1.5 Flagship projects for research and innovation in the context of the National Hydrogen Strategy	Target	Commitment for flagship research and innovation projects
21C	1.1.6 Federal support for efficient heat networks	Target	Disbursement to the supported projects
23	1.2.1 Support for the construction of charging infrastructure	Target	Expansion of the public recharging network for electric vehicles
32	1.2.4 Extension of the initial registration period for granting the ten-year tax exemption for purely electric vehicles	Milestone	Evaluation of the measure
34	1.2.5 Support for purchases of buses with alternative propulsion	Target	Approval of applications
35	1.2.5 Support for purchases of buses with alternative propulsion	Target	Orders of buses with alternative propulsion
40	1.2.7 Promotion of the industries involved in hydrogen and fuel cell applications in transport	Target	Approval of projects for the vehicle and supplier industry for hydrogen and fuel cell applications in transport
41	1.2.7 Promotion of the industries involved in hydrogen and fuel cell applications in transport	Milestone	Establishment of a Technology and Innovation Centre for Hydrogen Technology
45	1.3.2 Municipal living labs for the	Target	Completion of urban

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
	energy transition		neighbourhood projects
48	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Completion of energy-efficient renovations of a further 30 000 housing units
48B	1.3.3 Building renovation: federal funding for energy-efficient buildings	Target	Final target for completed individual renovation measures
50	2.1.1 Innovative data policy for Germany	Target	Development of human resources and capabilities in federal ministries
51	2.1.1 Innovative data policy for Germany	Target	Budget execution – disbursement of at least EUR 464 400 000 to the supported projects
54	2.1.2 IPCEI Microelectronics and Connectivity	Target	Budget execution – disbursement of at least EUR 1 275 000 000 to the supported projects
57	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Target	First industrial deployment of solutions developed under the measure.
58	2.1.3 IPCEI Next Generation Cloud Infrastructure and Services (IPCEI CIS)	Target	Budget execution – disbursement of at least EUR 637 500 000 to the supported projects
61	2.2.1 Vehicle manufacturers/suppliers investment programme	Target	Successful completion of projects
68	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Target	Budget execution – disbursement of EUR 700 000 000 to the supported
69	2.2.3 Digitalisation and Technology Research Centre of the Bundeswehr	Milestone	Report on research and transfer outputs
75	3.1.1 Investment programme for teacher devices	Milestone	Evaluation of changes in digital infrastructure and use of digital media in schools
82	3.1.3 Educational centres of excellence	Target	Completion of research projects
85	3.1.4 Modernisation of the Federal Armed Forces' educational and training facilities	Target	Completion of the modernisation of the 60 educational institutions
88	4.1.1 Investment programme 'Childcare-financing' 2020/21: special fund 'Child Day-care Expansion'	Target	Completion of all measures
97	4.1.5 Digital Pension Overview	Milestone	Completion of the implementation of improvements deduced from practical experience during the first operational phase.
100	5.1.1 Strengthening of the digital and technical resources of the public health service	Target	Progress of public health offices towards digital maturity
102	5.1.2 Programme to future-proof hospitals	Target	Increase in the digital maturity of at least 35% of hospitals

Sequential Number	Related Measure (Reform or Investment)	Milestone / Target	Name
103	5.1.2 Programme to future-proof hospitals	Target	Implementation of at least 75% of the relevant digitalisation projects
110	6.1.1 European identity ecosystem	Target	Provision of additional application cases beyond the pilots with little or no government support for their implementation
115	6.1.3 Digitalisation of the administration — modernisation of registers	Milestone	Completion of the implementation of the uniform architecture for the advancement of the only-once principle
116	6.1.3 Digitalisation of the administration —modernisation of registers	Target	Priority connection of user-based registers to the once-only target architecture
123	6.2.2.1 Expansion of consulting services of PD: Effective Funding Support Management	Milestone	Information dissemination on lessons learned
124	6.2.2.1 Expansion of consulting services of PD: Effective Funding Support Management	Target	Consultations carried out
129	6.2.3.1 Acceleration of planning and approval procedures in the transport sector	Milestone	Evaluation of legislative changes
130	7.1.1 (scale-up): Building renovation: federal funding for energy-efficient buildings	Target	Scaled up final target for completed individual renovation measures
132	7.1.2: Support programme for light- and heavy-duty zero-emission transport	Target	Final target for registration of zero-emission vehicles
133	7.1.2: Support programme for light- and heavy-duty zero-emission transport	Target	Entry into operation of recharging and refueling stations
134	7.1.3: Digital end-to-end platform to accelerate planning and approval	Milestone	Launch of project
135	7.1.3: Digital end-to-end platform to accelerate planning and approval	Milestone	Launch of once-only permitting platform
Instalment amount		EUR 6 445 680 778	

## **SECTION 3: ADDITIONAL ARRANGEMENTS**

### **1. Arrangements for monitoring and implementation of the recovery and resilience plan**

The monitoring and implementation of the recovery and resilience plan of Germany shall take place in accordance with the following arrangements:

- A coordination unit in the Federal Ministry of Finance shall monitor the implementation of Germany's recovery and resilience plan. The unit shall coordinate the monitoring and reporting of progress on milestones and targets and on relevant indicators, perform qualitative controls on all financial data and submit payment requests. The coordination unit shall be further responsible for identifying and correcting early on any potential undesirable developments. It shall serve as a coordinating body also for the monitoring and implementation of the audit and control measures.
- The coordinating function of the unit is based on established national mechanisms and regulations. The relevant national legal provisions and national mechanism for monitoring and control shall be applied, including the corresponding reporting obligations. The disbursement of funds for the measures in the recovery and resilience plan to the final recipients shall be carried out in compliance with the legal basis of the general funding guidelines (*Förderrichtlinie*) for the respective measure in accordance with the General Administrative Regulations, and on the basis of individual funding decisions (administrative acts) in favour of the final recipients.
- The coordination unit consists of a team of economists and budgetary and controlling experts with the relevant experience and specialist knowledge. Specialist expertise from other units of the Federal Ministry of Finance or other line Ministries shall be called in as needed. The mandate of the coordinating unit is set out in the distribution-of-business plan of the Federal Ministry of Finance.

### **2. Arrangements for providing full access by the Commission to the underlying data**

The Federal Ministry of Finance, as the central coordinating body for Germany's recovery and resilience plan and its implementation, is responsible for overall coordination and monitoring of the plan. In particular, it acts as a coordinating body for monitoring progress on milestones and targets, for monitoring and, where appropriate, implementing control and audit activities, and for providing reporting and requests for payments. It coordinates the reporting of milestones and targets, relevant indicators, but also qualitative financial information and other data, such as on final recipients. The data encoding is taking place in decentralised IT systems throughout different ministries, which are obliged to report the required data to the Federal Ministry of Finance.

In accordance with Article 24(2) of Regulation (EU) 2021/241, upon completion of the relevant agreed milestones and targets in Section 2.1 of this Annex, Germany shall submit to the Commission a duly justified request for payment of the financial contribution. Germany shall ensure that, upon request, the Commission has full access to the underlying relevant data that supports the due justification of the request for payment, both for the assessment of the request for payment in accordance with Article 24(3) of Regulation (EU) 2021/241 and for audit and control purposes.