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Analysis of the recovery and resilience plan of Hungary

Accompanying the document

Proposal for a Council implementing Decision

on the approval of the assessment of the recovery and resilience plan for Hungary

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Table of contents

| | |
|---|----|
| 1. Executive summary | 2 |
| 2. Recovery and resilience challenges: scene-setter | 6 |
| 2.1. Macroeconomic outlook..... | 6 |
| 2.2. Challenges related to sustainable growth, cohesion, resilience and policies for the next generation..... | 9 |
| 2.3. Challenges related to the green and digital transition | 15 |
| 3. Objectives, structure and governance of the plan..... | 24 |
| 3.1. Overall strategy of the plan | 24 |
| 3.2. Implementation aspects of the plan | 26 |
| 4. Summary of the assessment of the plan | 32 |
| 4.1. Comprehensive and adequately balanced response to the economic and social situation | 32 |
| 4.2. Link with country-specific recommendations and the European Semester..... | 38 |
| 4.3. Growth potential, job creation, economic, institutional and social resilience, European Pillar of Social Rights, mitigating the impact of the crisis, and social territorial cohesion and convergence..... | 48 |
| 4.4. The principle of ‘do no significant harm’ | 54 |
| 4.5. Green transition..... | 56 |
| 4.6. Digital transition..... | 61 |
| 4.7. Lasting impact of the plan..... | 63 |
| 4.8. Milestones, targets, monitoring and implementation..... | 65 |
| 4.9. Costing | 67 |
| 4.10. Controls and audit..... | 70 |
| 4.11. Coherence | 74 |

1. EXECUTIVE SUMMARY

Hungary's recovery and resilience plan¹ contains a significant number of reforms and investments, worth EUR 5.8 billion (3.8% of 2021 GDP), which are important for the economy. In the years before COVID-19, the Hungarian economy was growing rapidly, by 4.6% in 2019, supported by stimulative fiscal and monetary policies. Employment indicators were also improving, in line with the good economic situation, with the employment rate reaching 75.3% in 2019. The pandemic led to a sharp fall of economic activity in spring 2020, but the economy rebounded quickly once sanitary measures were eased. While the pandemic halted the positive trend of employment indicators, the employment rate remained above the EU average and the low unemployment rate only increased slightly. The budget deficit increased significantly in 2020, reaching 8.1% of the GDP, as a result of measures mitigating the impact of the crisis on the economy. The high deficit and a depreciating currency contributed to the substantial increase in the public debt, from 65.5% of GDP in 2019 to 79.3% in 2020.

Hungary's economy and society face a number of long-term challenges, which have been reflected in EU country-specific recommendations. The economy has caught up with the EU average over the years, but ensuring sustainable productivity growth will require sustained reforms and investments in education, skills, healthcare and the quality of public institutions. In particular, a more skilled workforce and a more robust institutional framework are essential to move away from a model based on low labour costs, towards a more knowledge-based, sustainable economy producing advanced products. Strengthening the research and innovation capacity of domestic firms is also key to secure long-term growth and competitiveness. While the overall poverty situation has improved markedly in the last years, there is still room to address material deprivation and related challenges by improving social assistance, facilitating access to the labour market for disadvantaged groups and providing equal access to quality education and healthcare for all. Hungary also faces important challenges related to the green and digital transition, in areas such as energy efficiency, sustainable transport, water and waste management, and digitalisation in both the public and private sectors.

The plan pursues the general objective of the Recovery and Resilience Facility to promote the Union's economic, social and territorial cohesion and is balanced in its response to the six policy pillars referred to in Article 3 of the Regulation². The plan includes a broad mix of reforms and investments, with a particular focus on the green transition, digital transformation, building economic, social and institutional resilience, and on policies for the future generations. The plan also includes measures to support sustainable and inclusive growth, as well as social and territorial cohesion. The plan primarily addresses the green transition with measures promoting low-carbon public transport, energy grid developments, renewable energy generation, water management and the circular economy. The pillars linked to the digital transformation and to smart, sustainable and inclusive growth are addressed across various components, and the plan

¹ Hungary published its draft Recovery and Resilience Plan at: [Helyreállítási és Ellenállóképességi Eszköz \(RRF\) | Széchenyi Terv Plusz \(gov.hu\)](https://www.gov.hu/helyreallitasi-es-ellenallokepessegi-eszkoz-rrf-szechenyi-terv-plusz)

² Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility.

includes several measures to promote the digitalisation of public administration, education, healthcare and transport. The pillar on resilience is addressed through a significant number of measures, in particular through a comprehensive reform and investment package to modernise the healthcare sector, as well as to improve its efficiency and access for all. Institutional reforms are also expected to improve the resilience of the economy through strengthening the fight against corruption, competition in public procurement and the independence of the justice system. Policies for the next generation are notably covered by measures in the component on demography and public education and the component on disadvantaged settlements, notably through measures promoting digital education and improved access to quality education and childcare. Long-term growth challenges are mainly addressed through measures in the field of education, healthcare and research and development. Measures promoting the development of a qualified and competitive workforce and supporting disadvantaged settlements provide the main contributions to the pillar on social and territorial cohesion.

The plan is expected to contribute to effectively addressing a significant subset of the structural challenges identified in the country-specific recommendations addressed to Hungary in 2019, 2020 and 2022. The plan contains important measures addressing the challenges related to ensuring a swift and smooth **green and digital transition**. In particular, a series of actions promote the clean and efficient production and use of energy, sustainable transport, water management and the transition to the circular economy. In addition, various measures aim at improving digital infrastructure and skills, as well as the reinforcement of digital public administration. The plan includes a number of measures in the area of **education**, which contribute to addressing important challenges. It places emphasis mainly on the digitalisation of education, the improvement of digital skills, the modernisation of vocational education and training institutions, as well as on improving the attractiveness of the teaching profession by a reform foreseeing steady increases in the wages of teachers. The plan also includes measures to increase the quality of learning environments in higher education and to improve the ecosystem for **research and development**. The plan includes measures that contribute to addressing the challenges related to **poverty and social exclusion** by strengthening basic services and providing comprehensive support for those living in the 300 most disadvantaged settlements, including measures to promote employment and skills development. The creation of additional childcare places will facilitate the **labour market** participation of parents. The plan sets out an ambitious agenda to address key challenges of the **healthcare system** such as unequal access to health services, a high prevalence of gratuity payments, excessive reliance on hospital-level care and regional disparities stemming from staff shortages and an uneven distribution of active health workforce across the country.

The Hungarian plan also includes a comprehensive range of measures in many areas related to rule of law issues, aiming to overhaul existing practices and lead to structural improvements. These measures also contribute to addressing a significant subset of the structural challenges identified in the country-specific recommendations. The plan includes a number of measures to reinforce the **anti-corruption framework** and to strengthen the legislative, institutional and practical arrangements to more effectively prevent, detect and correct fraud, corruption, conflict of interest and other risks in the use of Union support in Hungary. Such

measures include, among others, the establishment of an Integrity Authority and enabling a judicial review of decisions by the prosecution service or the investigating authority to dismiss a crime report or terminate criminal proceedings. A number of reforms aim to strengthen **judicial independence** in particular by eliminating undue influences and making sure that the position of the judges in terms of appointments, secondments and in other decisions is secured against arbitrary decisions. To this end, the plan includes measures in particular on significantly strengthening the role and powers of the National Judicial Council, reforming the functioning of the Supreme Court, removing the possibility for public authorities to challenge final judicial decisions before the Constitutional Court, and removing obstacles to preliminary references to the Court of Justice of the European Union. The plan includes an ambitious set of measures aiming to improve competition in **public procurement**, with targets to significantly decrease the currently high share of public procurements resulting in single bids. To achieve this, Hungary plans to set up a comprehensive performance measurement framework and enhance the participation of small and medium-sized companies in tenders. The plan also includes reforms to improve the **quality and transparency of the decision-making process** and to ensure a more systematic involvement of social partners and stakeholders. The plan also includes reform steps to tackle the risks of **aggressive tax planning** and to simplify the tax system. Finally, the plan includes a reform of the **pension system**, which aims to address challenges related to fiscal sustainability and population ageing, and envisages a number of spending reviews to improve the quality of public finances.

The green transition is a key priority of the plan, with 48.1% of its allocation dedicated to climate-related measures. The measures included in the plan are expected to contribute to the decarbonisation and energy objectives as identified in the National Energy and Climate Plan 2021-2030, and they are important steps to move towards the 2030 and 2050 climate targets, in the context of the European Green Deal. Investments in residential solar power systems and in the strengthening of the electricity grid, combined with comprehensive reforms aimed at facilitating the development and connection of renewable energy sources, including wind power generation, are expected to contribute to Hungary achieving its 2030 renewable energy production target. Renovations of buildings will decrease their impact on greenhouse gas emissions and improve air quality. Measures to make transport more sustainable, such as railways investments, the deployment of electric buses and a reform of the tariff system, are expected to result in a cleaner, smarter, safer and more efficient transport sector. The plan also includes reforms and investments on water management systems, as well as measures supporting the transition to a circular economy by supporting the use of secondary raw materials. None of the measures are expected to cause significant harm to the environment.

With 29.8% of its allocation dedicated to digital measures, the plan includes a comprehensive package to promote the digital transformation of the economy and society. Most components contain measures relating to the digital transition. In particular, significant measures are foreseen to improve the digital equipment and skills in primary, vocational and higher education. The plan also contains measures relating to the digitalisation of public administration as well as of the health, transport and energy sectors.

The plan envisages changes to a number of institutions and policies, which can be expected to address root causes of existing challenges, and have a lasting impact. The plan aims to achieve structural changes and efficiency gains in particular in the healthcare and energy sectors and in public procurement. The far-reaching reform in the field of healthcare aims to modernise the sector and eradicate the practice of gratuity payments, which hampers access of the low-income population to quality care and creates inefficiencies in the treatment pathways. The elimination of gratuity payments could be also expected to contribute to reducing low-level corruption. These reforms are supported by investments in e-health. Reforms in the energy sector aim to create a more effective administrative and legal framework to support the deployment of renewable energy projects and their connection to the electricity system, which is important for the green transition, as well as for improving the energy independence of the country. Measures to increase competition in public procurement and for the digitalisation of certain procedures are expected to increase the efficiency of public administration. More generally, the plan is expected to make a significant contribution to strengthening the institutional resilience of Hungary, by reinforcing the anti-corruption framework, strengthening judicial independence, and improving the quality and transparency of the decision-making process.

Hungary has established an adequate structure to implement the plan as well as to monitor and report on progress. The central coordinating body will be the Deputy State Secretariat for the Implementation of the Recovery and Resilience Plan in the ministry responsible for the implementation of Union support (the ‘National Authority’). The National Authority will be responsible for the overall coordination of the implementation of the plan, for monitoring progress on milestones and targets, for drawing up payment requests and for signing the accompanying management declarations. It will also coordinate the reporting of milestones and targets, relevant indicators, as well as the provision of data, such as on final recipients, based on information in a monitoring information system developed to fit the purposes of the plan. The milestones and targets of the plan constitute an appropriate system for monitoring its implementation: the proposed milestones and targets are clear and seem realistic, and the proposed indicators are relevant, acceptable and robust, allowing for proper monitoring during the implementation. The monitoring indicators are in general sufficiently clear and comprehensive to ensure that their completion can be traced and verified. The milestones and targets chosen represent key steps of the measures and concrete achievements directly linked to the implementation of the measures and under the control of Hungary. Overall, the milestones and targets reflect adequately the overall level of ambition of the plan and are considered relevant for its implementation.

Hungary has provided detailed breakdowns of individual cost estimates for investments and reforms with an associated cost included in the plan. Cost breakdowns and supporting documents show that most of the costs are sufficiently justified, reasonable, plausible, in line with the principle of cost efficiency, and commensurate to the expected national economic and social impact. Hungary provided sufficient information and evidence that the amount of the estimated total costs is not covered by existing or planned Union financing.

The arrangements in place to audit and control the implementation of the plan are adequate to contribute to prevent, detect and correct corruption, fraud and conflicts of interests, provided

that specific measures contained in the proposal for the Council implementing decision are put in place. Taking into account the systemic irregularities, deficiencies and weaknesses identified for Hungary in the procedure under Article 6 of Regulation (EU, Euratom) 2020/2092 on a general regime of conditionality for the protection of the Union budget ('the Conditionality Regulation'), a significant number of measures to be fulfilled prior to the submission of the first payment request under the plan have been identified, in order to strengthen the arrangements related to audit and control. These are in line with the remedial measures which Hungary committed to undertake under the Conditionality Regulation process. Taking into account that effective judicial independence is a prerequisite for the functioning of an internal control system, reforms to strengthen judicial independence are also included. The correct, full and effective implementation of all these measures will be essential for ensuring that the financial interests of the Union are adequately protected during the implementation of the plan. As regards the specific arrangements for the plan, Hungary has committed to adopt a government decree to set out the precise legal mandates, roles and responsibilities of different bodies involved in the implementation, audit and control of the plan. Targeted audits by the authorities are expected to confirm that arrangements concerning the use of the Arachne system to effectively prevent and detect fraud, corruption, conflict of interest and double funding are appropriate, that the arrangements to prevent, detect and correct conflict of interest at any level are effective, and that the necessary functionalities of the monitoring information system, which will be crucial for the regular implementation and control of the plan, are fully functioning and operational as well as tailored to the requirements of the Recovery and Resilience Facility. Finally, the Hungarian audit authority will be expected to put in place an effective audit strategy, in line with the approach described in the plan and internationally accepted audit standards, to allow for effective audits to be carried out in time for the audit summary to be submitted together with the first payment request.

Overall, the plan represents a consistent and comprehensive package of reforms and investments, mutually reinforcing each other. Synergies are ensured in thematic components as well as horizontally across a number of components.

Table 1: Summary of the Hungarian recovery and resilience plan assessment for the 11 criteria set by the Recovery and Resilience Facility regulation

| (1) Balanced Response | (2) CSRs | (3) Growth, jobs... | (4) DNSH | (5) Green target | (6) Digital target | (7) Lasting impact | (8) M & T | (9) Costing | (10) Control Systems | (11) Coherence |
|-----------------------------|-------------|---------------------------|-------------|------------------------|--------------------------|--------------------------|--------------|----------------|----------------------------|-------------------|
| A | A | A | A | A | A | A | A | B | A | A |

2. RECOVERY AND RESILIENCE CHALLENGES: SCENE-SETTER

2.1. Macroeconomic outlook

A period of high growth was interrupted by the pandemic. In the years before COVID-19, the Hungarian economy was growing rapidly, supported by stimulative fiscal and monetary policies. GDP grew by 4.9% in 2019 and capacity constraints and a shrinking working-age population were

pointing towards a slowdown in the years ahead. These supply bottlenecks also manifested in high wage growth, rising inflation and rapid house price increases.

Hungary's economy bounced back from the COVID-19 crisis. The COVID-19 pandemic resulted in a 4.5% drop of GDP in 2020. The sharp fall of economic activity in spring 2020 was followed by a quick rebound as sanitary measures were eased. Real GDP grew by 7.1% in 2021 and surpassed its pre-pandemic level by 2.3%. While unemployment rose from 3.3% in 2019 to 4.1% in 2021, its increase was mitigated by various government programmes, also benefitting from EU financial support through the SURE scheme. Employment rose as the economy recovered, and the employment rate in the 15-64 age group reached 73.1% in 2021, above the EU average. GDP growth remained strong up to the first half of 2022, boosted by expansionary economic policies. The economy even showed signs of overheating again, including rising inflation and a widening current account deficit.

The pandemic had a strong negative impact on public finances. The budget deficit increased significantly in 2020, reaching 8.1% of the GDP, as a result of spending on measures mitigating the impact of the crisis on the economy. The high deficit and a depreciating currency contributed to the substantial increase in the public debt, from 65.5% of GDP in 2019 to 79.3% in 2020, followed by a reduction to 76.8% in 2021.

The difficult external environment in the wake of Russia's war of aggression against Ukraine and the ensuing energy crisis created new challenges for Hungary. The external environment has become more challenging since spring 2022 due to tighter external financing conditions, as well as persistently increasing energy prices and the risk of supply disruptions. The Hungarian forint depreciated by some 11% relative to the euro since the beginning of 2022, while the 10-year government bond yield rose by some 300 basis points to 7.6% (on 22 November 2022).

Overall, the Commission's 2022 Autumn Economic Forecast projects a sharp slowdown of economic growth amid high inflation. Higher inflation and energy prices, as well as tighter financing conditions, are set to constrain economic activity in the coming years, with real GDP growth projected to slow down from 5.5% in 2022 to 0.1% in 2023 and recover only to 2.6% in 2024. Inflation is projected to remain high in 2022 and 2023, at 14.8% and 15.7% respectively, driven by increasing material, energy and wage costs for companies. After the higher production costs feed into consumer prices, inflation is projected to recede to 3.9% in 2024.

The labour market remains tight despite the economic slowdown. The labour market was robust in the first half of 2022 with unemployment falling to 3.3% and nominal wages growing by 14.9% in Q2-2022. Shortages of skilled workers are expected to mitigate the rise in unemployment and to support the nominal wage growth in the coming years. The unemployment rate is expected to rise marginally from 3.6% in 2022 to 4.2% in 2023-2024.

Public finances enter a challenging period. In 2022, the deficit is forecast to remain high at 6.2% of GDP despite robust revenue growth in the first half of the year. The introduction of several expansionary measures at the beginning of the year and increased spending in response to high energy prices are forecast to put pressure on the public finances in 2022 and beyond. The deficit

is expected to narrow to 4.4% in 2023 (notably due to additional windfall profits and sectoral tax revenues) before rising again to 5.2% in 2024. Public debt is projected to decrease slightly from 76.8% of GDP in 2021 to 75.1% in 2024. Government gross financing needs are high and the share of government debt denominated in foreign currencies or held by non-residents is elevated. Sovereign bond yields have increased for all maturities especially since summer last year. Based on the Fiscal Sustainability Report 2021, fiscal sustainability risks are medium in the medium term and high in the long term, also due to population ageing.

External sustainability risks have increased amid deteriorating external flows. The current account deficit widened to 4% of GDP in 2021, with a clear further widening underway in 2022. Hungary's large net energy imports make the external balance sensitive to international energy price developments.

Cost competitiveness concerns, which existed already before the COVID-19 pandemic, persist. Continued nominal depreciations of the forint have partially offset the large increases in nominal unit labour costs (ULCs) in recent years. ULCs increased again in 2021, in context of a tight labour market, and are forecast to increase strongly in 2022 and 2023.

House prices have grown rapidly until recently. Nominal house price growth accelerated from 4.9% to 16.5% in 2021 and grew at one of the highest paces in the EU. Nominal year to year house price growth accelerated to 22.8% in the second quarter of 2022. House prices were estimated to be 20% overvalued in 2021. At the same time, dwelling investment was well below the EU average at 3.9% of GDP in 2021.

The banking sector remains overall sound but faces challenges ahead. Profitability has recently been one of the highest in the EU, the Tier-1 capital ratio is close to the EU average and the share of non-performing loans has remained low. Yet a recently introduced windfall tax for 2022 and 2023 and a regulatory cap on flexible mortgage rates until mid-2023 are likely to significantly reduce banks' profits. The holdings of government debt accounts for almost one fifth of bank assets. The private sector debt-to-GDP ratio is low but borrowing by households and corporations has increased strongly since 2020 and loans in foreign currency have significance, notably for commercial real estate.

The macroeconomic scenario contained in Hungary's Recovery and Resilience Plan expects robust economic activity in 2022-2023. This scenario is in line with Hungary's 2022 Convergence Programme published in April 2022, which do not take into account economic developments since spring 2022. The forecast projects high real GDP growth of 4.3% in 2022, driven by a strong pick-up in private consumption. Growth is then expected to remain above 4% in 2023-2025. According to this scenario, inflation is set to fall from 8.9% in 2022 to 5.2% in 2023, before reverting to the central bank's target of 3% in 2024.

The forecast underpinning the plan is more favourable than the Commission's forecast, as it does not fully include the implications of Russia's war against Ukraine and the energy crisis.

Table 2: Comparison of macroeconomic developments and forecasts

| | 2019 | 2020 | 2021 | 2022 | | 2023 | | 2024 | | 2025 | 2026 |
|---------------------------------------|------|------|------|------|-----|------|-----|------|-----|------|------|
| | COM | COM | COM | COM | RRP | COM | RRP | COM | RRP | RRP | RRP |
| Real GDP (% change) | 4.9 | -4.5 | 7.1 | 5.5 | 4.3 | 0.1 | 4.1 | 2.6 | 4.2 | 4.3 | 4.3 |
| Employment (% change) | 1.1 | -1.0 | 1.0 | 1.9 | 0.7 | 0.0 | 0.3 | 0.4 | 0.2 | 0.1 | 0.1 |
| Unemployment rate (%) | 3.3 | 4.1 | 4.1 | 3.6 | 3.6 | 4.2 | 3.3 | 4.2 | 3.1 | 2.9 | 2.8 |
| HICP inflation (%) | 3.4 | 3.4 | 5.2 | 14.8 | 8.9 | 15.7 | 5.2 | 3.9 | 3.0 | 3.0 | 3.0 |
| General government balance (% of GDP) | -2.0 | -7.5 | -7.1 | -6.2 | | -4.4 | | -5.2 | | | |
| Gross debt ratio (% of GDP) | 65.3 | 79.3 | 76.8 | 76.4 | | 75.2 | | 75.1 | | | |

Source: European Commission's 2022 Autumn Economic Forecast and Hungary's Recovery and Resilience Plan

2.2. Challenges related to sustainable growth, cohesion, resilience and policies for the next generation

Smart, sustainable and inclusive growth

The Hungarian growth model relies extensively on participation in global value chains. Economic policy has focused on attracting foreign direct investment in the tradable sector through comparatively low labour cost, flexible labour market legislation, large investment subsidies and a competitive corporate tax system. While Hungary achieved some income convergence to the EU average over the last decade, the decreasing availability of skilled labour, low investment in human capital and deteriorating institutional quality have become constraints for growth. In the years before the COVID-19 pandemic, the government aimed to speed up income convergence by administrative wage increases and pro-cyclical fiscal and monetary expansion. The supportive fiscal and monetary policy mix continued during the COVID-19 crisis. However, without productivity-improving structural reforms, this policy resulted in high inflation, rapid house price growth, currency depreciation and a deteriorating external balance. This created vulnerabilities before the significant increase of energy prices hit the economy in 2022.

Hungary has significant room for catching up in productivity. While productivity growth has picked up since 2016, thanks to the strong cyclical upturn before the COVID-19 pandemic, the labour productivity gap compared to the EU has not decreased since 2010. A Hungarian worker produces on average 32% less value added than an average worker in the EU, after accounting for the lower price level and longer working hours in Hungary. While demand conditions were rather supportive in the last decade, there remain supply-side barriers to investment and productivity growth, especially for smaller firms. The development of the economy has so far relied on increasing labour supply and pursuing integration into the more cost-sensitive mid-stream

activities of global value chains. Hungary's future economic development depends on its capacity to implement structural and institutional reforms which effectively remove obstacles to sustainable productivity growth. In particular, a more skilled workforce and a more robust institutional framework are required to move away from a model based on low labour costs, towards a knowledge-based, sustainable economy producing advanced products.

Strengthening academia-business linkages and the research and innovation capacity of domestic firms is key for long-term growth and competitiveness. Hungary is an “emerging innovator” and its performance relative to the EU has deteriorated in recent years according to the 2022 edition of the European Innovation Scoreboard. Spending on R&D is increasing slowly from 0.98% of GDP in 2008 to 1.6% of GDP in 2020. This value is high among Central Eastern European countries, but lower than the EU average of 2.31%. The increase over the years took place in the business sector, while R&D spending in the public sector decreased. The shortage of talent and skills limits the innovative activity of enterprises. Only 49% of Hungarians possess at least basic digital skills, against an EU average of 54% in 2021. Tertiary education attainment rates are among the lowest in the EU. The academia-business cooperation is mostly limited to large companies due to the lack of demand and capacity of smaller firms.

Barriers to competition hinder productivity growth, especially in services. Manufacturing and services face different environments. The authorities tend to sign strategic agreements with large manufacturing firms and their investment projects benefit from significant government support. Service activities, however, face more barriers to competition. Frequent introduction and subsequent repeals of administrative measures have contributed to an unstable business environment in retail trade. Restrictions on large units hold back efficiency gains in the retail sector and raise consumer prices. The government can exempt business merger and acquisition transactions from the examination of the Competition Authority so that such an examination never takes place. The criteria for these exemptions are not laid out transparently in the legislation, and no formal procedure exists to contest the decision of the government on these exemptions. Moreover, the provision of several services is entrusted to state-owned or private firms specifically created for these purposes, which operate without competition. Moreover, Hungary has the highest number of regulated professions in the EU. Slow and costly insolvency procedures may also hinder the restructuring of failing businesses.

The procurement market remains vulnerable to anticompetitive practices. The proportion of contracts awarded in procedures where there was just one bidder remains among the highest in the EU. The lack of competition in public procurement decreases incentives to innovate for companies which cannot enter the procurement market, as well as for companies benefitting from the situation. The authorities improved the supervision of the regularity of public procurement in response to the findings of the Commission's successive audits in the field of EU funds management, which identified serious, systemic deficiencies and irregularities, in particular, related to the use of framework agreements. In February 2021, the government set itself an ambitious target of reducing the percentage of public procurement procedures with only a single

bid to less than 15%. However, the recent apparent exclusion of public interest trusts from public procurement rules remains a concern.

Social and territorial cohesion

Employment recovered after the COVID-19 crisis but the situation of women and vulnerable groups, in particular low skilled and young people, is still to be improved. The employment and social situation improved in the last decade in line with the good economic situation. The COVID-19 pandemic halted this positive trend but the labour market regained its strength quickly after the peak of the crisis. The employment rate in the 20-64 age group rose from 62% in 2010 to 80.2% in Q2 2022, well above the EU average of 74.9%. However, not all groups benefited equally and employment rates remain low for various vulnerable groups. In particular, mothers with young children tend to stay out of work for a long time, partly due to the scarcity of childcare places in nurseries. Some other groups struggle to remain in the labour market: by design, the tax and benefit system provides limited cushion in difficult economic times and the unemployment benefit scheme is one of the least generous in the EU in terms of benefit and duration of support.

Although the overall poverty situation has improved markedly, challenges remain. In 2021, the share of population at risk of poverty or social exclusion was lower in Hungary than the EU average. However, material and social deprivation rates remain among the highest in the EU, especially for children, and risks are concentrated in specific groups and territories. Based on national data, poverty rates are 3-4 times higher for Roma, a situation which reflects regional disparities in terms of access to the labour market and quality public services.

Income inequality has increased over the past decade and inequalities in access to public services remain high. In 2021, the incomes of the richest 20% of the population were 4.4 times higher than those of the bottom 20%, up from 3.6 times higher in 2008. This increase has been one of the highest in the EU, although the ratio still remains below the EU average (5.2 in 2021). Similarly, the poverty gap increased significantly in recent years. Inequalities persist in access to public services, including basic services such as water supply and sanitation, and a high proportion of people experience difficult living conditions. The low and shrinking supply of social housing is becoming a challenge against the backdrop of high residential property prices. Disadvantaged groups face limitations in access to the labour market and quality education and healthcare. More inclusive education and healthcare systems are seen as key to improve social cohesion.

Population ageing and the increase of public debt during the COVID-19 crisis intensified long-term fiscal sustainability challenges. The pension expenditure is projected to rise substantially, from around 8% in 2019 to above 12% of GDP in 2070. The fiscal sustainability indicators point to medium sustainability risks in the medium term and high risks in the long term. Recent policy measures exacerbate this sustainability challenge by increasing the government's long-term pension liabilities. In particular, the reintroduction of the 13th-month pension in 2021 and 2022 increases expenditure on pensions. The system also faces challenges related to fairness: changes to tax and pension systems in the last decade are projected to increase expenditure on the

pensions of high-wage retirees and amplify inequalities among pensioners. Those measures include the removal of the ceiling on pensionable income and pensions and the introduction of the flat personal income tax that boosts pensionable income of high earners. At the same time, the minimum pension has remained nominally unchanged since 2008, which affects the situation of those with interrupted employment history and low average earnings during their career.

Regional disparities are significant in terms of economic development, labour market, education outcomes and demographic trends, as well as in terms of access to infrastructure and public services. Since 2008, GDP per capita has converged to the EU average in every region. However, this process was uneven between the regions and at county level, thus significant disparities between and within regions remain. The rate of households that have broadband access has significantly improved in the last five years, but there is still a gap between the best (Budapest) and worst (Dél-Alföld) connected regions. The more developed regions benefit from a concentration of skilled workers, good transport connections and proximity to main trade partners, which attracted significant foreign direct investment and created local agglomeration effects. Rural areas suffer from shortages and degradation of infrastructure and public services, including public education and health care.

Health and economic, social and institutional resilience

Health outcomes, although improving, remain worse than in most other EU countries, reflecting both lifestyles leading to health risks and the limited effectiveness of public health care. The life expectancy of Hungarians lags behind that of most other Europeans and differs significantly according to gender and levels of education. In particular, Hungary has one of the highest mortality rates from preventable causes in the EU. This is also correlated with an above-average prevalence of risk factors, low spending on prevention and a public share of health spending below the EU average, which all indicate substantial scope to strengthen public health interventions. In this context, individuals are increasingly pushed to turn to private care to access health services, with repercussions on social equity as well as health outcomes. At the same time, the health system remains excessively reliant on hospitals to provide care services, with insufficient focus on primary care and prevention, and a too limited role for general practitioners as gatekeepers to higher levels of care. The low number of practitioners, their age composition, geographical distribution, limited formal competencies, as well as the lack of performance incentives to avoid unnecessary referrals, also hinder the effectiveness of primary care and reduce the attractiveness of the profession. Recent reforms have encouraged general practitioners to cooperate more with each other, which could make primary care more efficient. The obsolete hospital payment system, together with low decision-making autonomy at institutional level, has contributed to rising hospital debt which continues to accumulate. Moreover, the hospital network is excessively fragmented, hindering efficiency and quality of care. In 2020, the reform of the hospital network started by centralising several care services and administrative functions at county level.

Although authorities started addressing the issue of health workforce shortages, regional disparities remain. Compared to the EU average, Hungary has a lower number of doctors and nurses per 1 000 inhabitants. Large outflows of skilled health professionals seeking better working conditions abroad or in the fast-growing domestic private sector have exacerbated the issue of shortages of adequate staff in the public health care sector. To retain physicians, the government took steps to increase the salaries of doctors working in state and municipal healthcare facilities. Salary increases were also accompanied by provisions limiting doctors' capacity to simultaneously work in public and private facilities, and introducing stricter penalties for health workers accepting gratuity payments. Although wages remain low from an EU perspective, the recent increases may contribute to stemming or slowing down outflows of medical personnel.

Sound public finances and quality public spending are crucial to address current and future challenges. While the inflow of EU funds is expected to decrease over time as Hungary catches up with the EU average income levels, the investment needs will remain sizable. In particular, Hungary will face high spending pressures to support the green transition and the move towards a more knowledge-based growth model. In the short and medium term, this warrants a systematic review of the expenditure side of the budget, with a view to identifying potential savings and efficiency gains, and scope for reallocation within the budget to promote growth-friendly spending, including on the green and digital transitions.

The tax system is highly competitive, but it might also facilitate aggressive tax planning. Hungarian companies can benefit from the lowest corporate tax rate in the EU and the tax burden on labour decreased significantly (while remaining high for low-income earners). However, sector-specific taxes and a large number of small taxes complicate the tax system and raise compliance costs, in particular for smaller firms. At the same time, Hungary is one of only two EU Member States that do not apply any withholding tax on royalty, dividend or interest payments to non-EU jurisdictions. Royalty and interest payments leaving the EU are not taxable in Hungary, even though they can be deducted from a company's tax base. As a result, the outflows of royalty, interest and dividend payments from Hungary to offshore financial centres are well above the EU average. Reforms that tackle the risk of aggressive tax planning and increase the transparency of the tax system are expected to result in higher government revenues and stronger job creation, while ensuring that companies do not avoid paying their fair share of taxes in the EU. The introduction of rules aimed at ensuring that payments towards low- or no-tax jurisdictions are non-deductible, as well as stronger conditionality for companies on fiscal residence, are expected to contribute to these objectives.

Weak quality of institutions, including an insufficient anti-corruption framework, holds back productivity growth. In recent years, institutional quality has been relatively weak and deteriorating in comparison with the EU average. Deficient independent control mechanisms and tight interconnections between politics and certain businesses are conducive to corruption. When serious allegations arise, there is a recurrent lack of determined action to investigate and prosecute corruption cases involving high-level officials or their immediate circle. Accountability for

decisions to close investigations has been a matter of concern as there were no effective remedies against decisions of the prosecution service not to prosecute alleged criminal activities. Restrictions to media freedom, a hostile environment for civil society organisations and recurrent challenges in the application of the transparency and access to public information rules have also further weakened the anti-corruption framework. In December 2021, the government postponed the implementation of most measures in its anti-corruption strategy for the years 2020-2022.

Low transparency of the policy-making process may affect the business environment. Hungary scores low among the Member States in social dialogue, stakeholder engagement in developing primary law, consultation with social partners, civil society, and the use of evidence-based instruments. National rules on the obligatory public consultation of draft legal acts and their impact assessments have been systematically disregarded. The number of laws subject to consultation has been very low in recent years³.

Concerns regarding judicial independence also exist. The National Judicial Council continues to face difficulties in counter-balancing the powers of the President of the National Office for the Judiciary. Concerns are also centered around the functioning of the Supreme Court. In particular, the rules on electing the President of the Supreme Court create risks of political influence over the top court of the country, including through the possibility for members of the Constitutional Court to be appointed as judges at the Supreme Court. Further, the lack of transparency of the case allocation scheme does not allow parties to verify whether any undue discretion has been applied. Questions have also been raised regarding the role of the Constitutional Court, composed of members elected by Parliament without the involvement of the judiciary, in reviewing judgments of the ordinary court. Concerns have also been raised by procedural rules allowing to challenge before the Supreme Court the necessity of a preliminary reference.

Policies for the next generation, children and the youth

Education can play a key role in unlocking the growth potential of the economy. According to the Social Scoreboard, educational outcomes are below the EU average and the impact of the socio-economic background of pupils on their educational outcomes is one of the strongest in the EU. Contrary to European trends, early school leaving increased in Hungary in the last decade to 12.0% in 2021, which is above the EU average of 9.7%. Early school leaving is higher in the least developed districts, and six times higher among the Roma population than the non-Roma. Performance-based selection into different education tracks starts at the age of 10 and this leads to the early separation of underachieving pupils from their high-achieving peers. Disadvantaged students have low chances of entering the higher educational tracks. Entrants to three-year vocational education and training (VET) programmes have scarce opportunities to improve their already low basic skills, due to the limited basic skills content of the curricula. Disadvantaged

³ See European Semester 2022 country report, Annex 11 (SWD(2022) 614 final), and 2022 Rule of Law Report, Country Chapter on the rule of law situation in Hungary (SWD(2022) 517 final).

pupils are attracted to VET programmes by a generous VET scholarship scheme as from the 2020-2021 school year. The 2019 reform of vocational education and training removed the possibility for students in the three-year VET schools to obtain the upper-secondary-school leaving certificate in formal day-time education, which is needed for enrolling in higher education. The low effectiveness and equity of the school system are partly linked to the lack of socioeconomic diversity within schools, the low level of curricular autonomy and the low salaries of teachers. The latter also translates in a low attractiveness for the profession. While aggregate indicators, such as the teacher pupil ratio, do not signal acute shortages, a more detailed analysis shows that shortages exist for specific subjects such as mathematics, science and foreign languages. Teacher shortages are also linked to the fragmentation of the school system, as half of all primary and lower secondary schools have fewer than 150 pupils. Schools with a high proportion of disadvantaged pupils tend to suffer particularly from the lack of qualified teachers. More than half of the graduates from teacher education end up in other careers due to the high workload and low pay of the profession, especially at the beginning of their career. Moreover, the centralised management of schools leaves school heads with limited autonomy and tools to improve the quality of teaching. As regards higher education, the share of 25-34 year old people with a tertiary diploma has risen since 2010, but it remains among the lowest in the EU. The number of entrants in tertiary education has even been shrinking over the past decade, reflecting demographic trends, poor school outcomes and the reduction of state-funded places. Since 2022, all workers below the age of 25 have been exempted from personal income tax, a measure which may increase employment but could further reduce the pool of applicants to tertiary education. Against this backdrop, the gap between the basic skills level of high- and low-educated adults is one of the largest in the EU. At the same time, adult participation in lifelong learning is about half of the EU average. This results in skills shortages and a low innovation potential.

2.3. Challenges related to the green and digital transition

Green dimension

The recovery and resilience plan should contribute to the green transition and at least 37% of the financial allocation needs to contribute to climate objectives. According to the RRF Regulation, the measures in the plan are expected to contribute to achieving the 2050 climate neutrality objective, and the 2030 energy and climate targets, taking into account Hungary's National Energy and Climate Plan (NECP), which was notified to the Commission on 22 January 2020. The measures should also contribute to meeting environmental targets for waste, pollution control, sustainable mobility, biodiversity protection and restoration, water resources, and support the transition to sustainable food systems as well as to a circular economy, while ensuring that nobody is left behind.

Greenhouse gas emissions

In its NECP, Hungary targets a modest reduction in greenhouse gas emissions by 2030. Hungary has a national economy-wide target of cutting greenhouse gas emissions by at least 40%

by 2030 compared to 1990. Additional measures are needed to attain this target. Hungary's NECP sets targets for renewable energy sources and energy efficiency for 2030 that show low ambition with regard to the attainment of the EU targets, and provides no information about an estimated trajectory of annual emission levels for 2020-2030.

In its NECP, Hungary intends to contain emissions in the transport sector by 2030, while noting that energy demand in transport and industry cannot be constrained in a growing economy. Hungary's NECP sets forth the objective of ensuring that the consumption of petroleum products in transport does not increase by more than 10% by 2030. Greenhouse gas emissions from transport have increased strongly over the last five years and emissions are projected to continue increasing under current policies. The government intends to address transport emissions by promoting electromobility, sustainable public transport and freight transport by rail. As regards the building sector, greenhouse gas emissions reductions would be achieved through energy efficiency measures and by taking up clean energy technology to replace gas for heating.

The European Green Deal set out new ambitious targets for the EU to reach climate neutrality by 2050, with a reduction of emissions by at least 55% by 2030. Important pieces of legislation have been or are in the process of being approved by the EU legislator to reach these goals. Member States will be expected to present updated NECPs in 2023.

Renewable sources of energy

The 2020 Hungarian NECP aims at a renewable share of 21% in its gross energy consumption, which the Commission considers unambitious compared to the 23% resulting from the formula⁴ used by the Commission to assess proportionate efforts in light of EU targets. In 2020, the renewable share (13.9%) in gross final energy consumption slightly overachieved Hungary's target (13%).

According to its latest National Energy Strategy, presented in January 2020, Hungary aims to increase electricity generation from low-carbon sources to 90% of the total by 2030. In addition to nuclear, Hungary intends to rely more on renewable energy sources, mainly solar energy, while wind energy plays only a small role in the government's plans. The share of renewables in heating is expected to be increased from 18.2% in 2020 to 28.7% by 2030.

Energy efficiency

Hungary's energy efficiency target in its 2020 NECP is unambitious compared to the EU's 2030 objective. It is set at maximum 18.8 Mtoe of final energy consumption, translating into 30.7 Mtoe for primary energy consumption. Moreover, the indicative trajectories and translation of the contribution into primary energy consumption are not clearly outlined. In 2020, the primary energy consumption indicator (23.9 Mtoe) was below the 2020 target (24.1 Mtoe), but the final energy consumption indicator (18 Mtoe) was above the 2020 target (14.4 Mtoe).

⁴ Annex II to Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

There is still a large potential for renovating the existing housing stock, public buildings and district heating networks as well as for increasing energy efficiency of small firms. Housing deprivation is among the highest in the EU: it is estimated that 20.4% of the population lives in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor⁵, which points to the important wider benefits of building renovation. Until the amendment of the regulated energy prices in summer 2022, the price for energy, including for gas, has been among the lowest in the EU for several years, which did not create incentives for energy savings and for improvement of energy efficiency.

The low energy efficiency of housing and polluting residential heating methods reduce air quality and there are large potential environmental and health gains to be achieved by stepping up renovation efforts. Investment in energy efficiency in residential housing, in particular in rural areas, would create local jobs, reduce air pollution, mitigate housing deprivation and contribute to reaching climate neutrality. However, financial incentives for households to upgrade the energy efficiency of their homes and decarbonise heating systems appear insufficient at this point in time to trigger a larger uptake, also given the low financial capacity of many affected households.

Sustainable transport

In recent years, Hungary has experienced a strong increase in emissions in the transport sector. Hungary also remains one of the most traffic-congested EU Member States, with an increasing number of hours lost per driver per year, mainly in urban areas. A more attractive public transport system could further facilitate labour mobility and help mitigate the environmental impact of transport. Although public transport in Hungary accounts for a larger share of trips than the EU average, this comes mainly from a lower motorisation rate. As income growth makes personal cars more affordable, and rising demand is expected to put further pressure on the low quality of transport infrastructures and services, the attractiveness of public transport will need to improve. While progressing, electro-mobility is also well below the EU average.

Water management

Water management remains a concern. Hungary's water-supply and sanitation system are still not fully compliant with the Drinking Water Directive, and water affordability remains an issue for the poorest part of the population. A large share of the water supply network is in poor state. Because of leaks, a quarter of the water entering the system generates no revenues. Regulated tariffs do not cover the maintenance costs of many water and wastewater companies. The utility tax, levied on companies' pipelines, poses another barrier to investment. Hungary's water bodies are exposed to pressures from human activities. With climate change expected to reduce flow levels in the country's rivers, there are plans to substantially expand crop irrigation but these raise concerns about possible harms to water quantity, water quality and biodiversity. At the same time, there is only limited attention to the central issues of water retention, restoring natural hydrology,

⁵ Eurostat database on "Income and living conditions", in 2020.

and adapting agricultural practices. Close to one quarter of Hungary's territory is exposed to floods, and the country's flood risk management plan does not sufficiently address this issue.

Circular economy





Progress towards a circular economy is at an early stage. Hungary's circular material use rate is with 8.7% far below the EU average (12.8%) (according to the latest data for the year 2020). The recycling rate (municipal waste) is with 33% considerably less than the 2025 EU target of 55%. Hungary has recently started the development of a national circular economy strategy and of a related action plan. Resource efficiency is low in comparison with the EU average. Waste generation is modest, linked to the relatively low income level of Hungary, but landfilling remains predominant (around 50% of the total municipal waste) and conversely, recycling is limited. Waste management was reorganised by the government in recent years, limiting competition, which has resulted in declining efficiency.

Air quality

The low energy efficiency of housing and polluting residential heating methods, as well as road transport, deteriorate air quality. Hungary needs to undertake additional efforts to meet the targets set in the National Emissions Ceiling Directive for 2020-2029 and for any year from 2030. Although emissions of key air pollutants in Hungary have decreased in recent years, they are still well above the EU average. In 2020, no exceedances above the EU limit values set by the Ambient Air Quality Directive were registered in Hungary. However, the European Commission is monitoring an infringement procedure against Hungary for persistent breaches of air-quality standards with exceedances of fine particulate matter (PM10) and nitrogen dioxide (NO2) limit values in several air-quality zones.

The table below gives an overview of Hungary objectives, targets and contributions under Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.

Table 3. Overview of Hungary's objectives, targets and contributions under Regulation (EU) 2018/1999

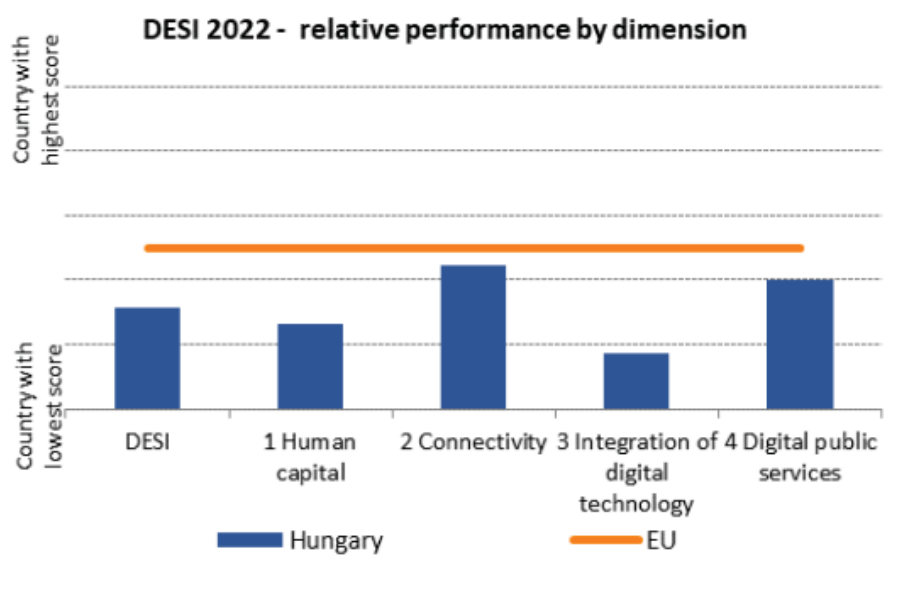
| | National targets and contributions | Latest available data | 2020 | 2030 | Assessment of 2030 ambition level |
|---|--|-----------------------|-----------|--------------------|--|
|  | Binding target for greenhouse gas emissions compared to 2005 under the Effort Sharing Regulation (%) | -10% | +10% | -7% | As in the Effort Sharing Regulation |
|  | National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%) | 12.5% | 13% | 21% | Unambitious (the result of RES formula is 23%) |
|  | National contribution for energy efficiency: | | | | |
| | Primary energy consumption (Mtoe) | 24.5 Mtoe | 24.1 Mtoe | No target set | Very low |
| | Final energy consumption (Mtoe) | 18.5 Mtoe | 14.4 Mtoe | 785 PJ (18.7 Mtoe) | Very low |
|  | Level of electricity interconnectivity (%) | 50% | 55% | 60% | n/a |

Source: Assessment of the final national energy and climate plan of Hungary, SWD (2020) 916 final.

Digital dimension

According to the RRF Regulation, the recovery and resilience plan should contribute to the digital transition and at least 20% of the financial allocation needs to contribute to digital objectives. The measures in the plan should, inter alia, contribute to the digital transformation of the economic and social sectors (including public administration, public services, and the justice and health systems). The objective of the measures in the plan should be to improve not only the competitiveness, but also the resilience, agility and security of companies and public actors, all while ensuring inclusiveness.

Figure 1. EU Digital Economy and Society Index (composite indicator)



Note: EU aggregate corresponds to EU27, based on 2022 DESI report

Hungary ranked 22nd amongst Member States in the Digital Economy and Society Index (DESI) 2022, with performances below the EU average and objectives in several dimensions. In the past years, Hungary made some progress in some of the dimensions measured by the DESI index. Hungary performs best on broadband connectivity and worst on the integration of digital technology in enterprises' activities. The COVID-19 pandemic highlighted existing weaknesses in the areas of digital skills, digitalisation of schools, digitalisation of enterprises and digital public services.

In 2021, Hungary adopted a National Digitalisation Strategy 2021-2030 (NDS). The NDS is structured around four main pillars corresponding to the DESI dimensions: digital infrastructure, digital skills, digital economy and digital state. Its overarching objective is to identify and exploit the potential of digitalisation in the economy, education, research, development and innovation, and the public administration, thereby improving the country's competitiveness and the well-being of its citizens. Hungary aims at exceeding the EU average in digital performance, as measures by DESI, by 2025, and be among the ten leading EU countries in terms of digitalisation by 2030.

Connectivity

Hungary ranked 13th in connectivity in the DESI 2022. According to most recent data (DESI 2022), 83% of households have a fixed broadband connection and more than half (61%) have at least 100 Mbps fixed broadband connection. It remains a leader in the take-up of very fast broadband (at least 1Gbps), with 22% of lines, which is far above the EU average (7.6%). Very

High Capacity Network (VHCN) coverage is increasing steadily and is now above EU average. 4G coverage is close to 100%, 5G readiness is advanced, but 5G coverage is below EU average.

Digital skills

Digital skills remain below the EU average across almost skill indicators. Half of the population has at least basic digital skills and only 22% has ‘above basic digital skills’. There is a shortage of ICT specialists in the workforce and the proportion of female ICT specialists is low, while the percentage of ICT graduates also stands below the EU average. There is a clear and urgent need to improve the general digital skills of the population. The NDS recognises this and identifies digital skills in education and digital competence of citizens as key fields to be improved.

Digitalisation of enterprises

Hungary ranked 25th in the integration of digital technologies by enterprises. Despite some improvements, Hungarian enterprises continue to lag behind their EU peers. The country still performs poorly on technology adoption indicators. The use of planning software, of social media and of e-invoices notably are well below the EU average. Hungarian enterprises are also slow in integrating advanced digital technologies in their business models. Big data is used by 7% of them, cloud by 21% and Artificial Intelligence by 3%, much lower than the EU average. In a recovery context, as well as to succeed in the shift of the economic model towards higher end products, it is a particular concern that few fast-growing enterprises make digitalisation an explicit part of their growth strategies. The NDS recognises that more support is needed for the digital transformation of enterprises, in particular small and medium-sized enterprises.

Digital public administration

The digitalisation of public services shows a mixed picture. Practically all relevant public services are available online (more than 3 000) and they are widely used. However, the quality and completeness of the supply of services for both people and businesses remains relatively low, especially for cross-border service provision. One problematic area remains open data, where Hungary is among the weakest performers in the EU. Hungary needs to make public data more readily available and reinforce the transparency of how the public administration operates.

Box 1: Progress towards the Sustainable Development Goals

Sustainable Development Goals and the four dimensions underpinning the Annual Sustainable Growth Strategy



The objectives of the Sustainable Development Goals are integrated in the European Semester since the 2020 cycle. This provides a strong commitment towards sustainability in coordination of economic and employment policies in the EU. In that context, this box outlines Hungary's performance with respect to the SDGs and looks at the four dimensions underpinning the 2023 Annual Sustainable Growth Strategy and of relevance to the recovery and resilience plans: green transition, fairness, digital transition and productivity, and macroeconomic stability. It points at areas where further action could accelerate the progress on the SDGs.

Green Transition

Although Hungary is improving on several aspects related to environmental sustainability such as climate action and pollution (SDGs 2, 6, 11, 12 and 13), it still needs to progress on others, in particular clean energy (SDGs 7 and 9). Most indicators linked to the green transition remain below the EU average. Notably, while the recycling rate of municipal waste and the circular material use rate improved, they are still below the EU average. The share of renewable energy in total energy consumption decreased from 14.5% in 2015 to 13.9% in 2020, exceeding the target set for Hungary but remaining far below the EU average (22.09% in 2020). Energy productivity in the country only slightly increased between 2015 and 2020, leading to an increased gap with the EU average. The share of sustainable transport modes has declined in recent years, while still

above the EU average. The share of forest area has increased from 25.2% to 26.1% between 2015 and 2018 but it remains significantly below the EU average (43.4% in 2018). The surface of terrestrial sites designated under Natura 2000 remained unchanged between 2014 and 2019 and was above the EU average.

Fairness

Hungary performs very well in some SDG indicators related to growth, employment and poverty reduction (SDGs 1 and 8). There has also been some improvement in health indicators (SDG 3), but the country still needs to catch up in several areas related to education and gender equality (SDGs 4, 5 and 10). Improvement has been particularly strong in the employment rate (from 73.7% in 2016 to 78.8% in 2021), the rate of severe material and social deprivation (from 24.1% in 2015 to 10.7% in 2020) and the rate of severe housing deprivation (from 15.5% in 2015 to 7.6% in 2020). The share of population unable to keep their homes adequately warm significantly decreased from 11.6% in 2014 to 5.4% in 2019, which is now below the EU average (8.2%). However, despite these improvements, Hungary still scores significantly below the EU average for the severe material and social deprivation rate (where the EU average is only 6.8%) and the severe housing-deprivation rate (where the EU average is 4.0%). Hungary also performs below the EU average in the area of education (SDG 4), with high and increasing rates of early school leaving (12.0% in Hungary compared to 9.7% in the EU) and low and decreasing tertiary education attainment (32.9% in Hungary against 41.2% in the EU) in 2021. Similarly, Hungary performs below than the EU average in gender equality (SDG 5), with worsening gender employment gap and gender pay gap, and low participation of women in national parliaments, governments and senior management.

Digital transition and productivity

Hungary shows a mixed picture when compared to the EU average in targets related to digital transition and productivity, as reported under SDG 8 (Sustainable economic growth, employment and decent work) and SDG 9 (Industry, innovation and infrastructure). The share of households with high-speed internet connections (48.6%) has moved towards the EU average of 59.3% in 2020, which represents significant progress. Hungary's gross domestic expenditure on R&D is well below the EU average (1.61% of GDP against 2.32% in the EU) and Hungary has not made significant progress on this area over time. Participation in adult learning and strengthening digital skills remain a challenge. In Hungary, with only 5.9% of adults participating in learning programmes, which is far below the EU average (10.8% in 2021). Only 49% of Hungarians possess at least basic digital skills, against an EU average of 54% in 2021.

Macroeconomic stability

Thanks to its favourable economic situation before the pandemic, Hungary performs relatively well in the indicators of SDG 8 (Sustainable economic growth, employment and decent work). Real GDP per capita in Hungary has been increasing over time, reaching EUR 13 660 in 2021 but it is still substantially below the EU average (EUR 27 810 in 2021), and economic convergence with the rest of the EU is slowing down. The investment share of GDP (26.8%) has increased since 2015 and is above the EU average. Hungary also outperforms the EU

average on employment-related indicators (SDG 8). The long-term unemployment rate has fallen significantly since 2015 (from 2.3% in 2016 to 1.3% in 2020). However, Hungary is still below the EU average – and has a declining performance – on access to justice and trust in institutions (SDG 16).

3. OBJECTIVES, STRUCTURE AND GOVERNANCE OF THE PLAN

3.1. Overall strategy of the plan

The recovery and resilience plan of Hungary is a comprehensive response to the consequences of the COVID-19 crisis, as well as to the main structural challenges identified for the Hungarian economy. The plan is structured around three strategic objectives:

- Establishing a smart, sustainable and inclusive growth path
- Safeguarding and creating jobs
- Competitiveness of enterprises and social convergence, covering all elements of the economic ecosystem and all groups of society.

The plan comprises nine components addressing challenges in the areas of public education, higher education and vocational education and training, social inclusion in the most disadvantaged settlements, water management, sustainable green transport, green energy, circular economy, health, and governance and public administration. The plan covers all six pillars foreseen in the RRF Regulation and has a strong focus on promoting a green- and technology-driven economic development path. The nine components are the following:

1. **Demography and public education**, which focuses on increasing the attractiveness of the teaching profession, including wages of teachers; better access to quality and inclusive public education with a particular attention to disadvantaged pupils, students with special education needs and pupils in low-performing lower secondary schools; the digitalisation of public education and digital equipment for pupils and teachers; reinforcing the skillset of teachers and school managers; and increasing the availability of early childhood education and care facilities for children below 3 years old. The component also includes a reform to improve the medium and long-term fiscal sustainability and adequacy of the pension system.
2. **Highly qualified, competitive workforce**, which aims to strengthen the higher education system through digitalisation and infrastructure improvements; to increase the availability of skilled workers through investments in vocational education and training institutions; and to support the ecosystem for science, research, innovation and training.
3. **Catching-up settlements**, which aims to secure basic services in the 300 most disadvantaged settlements and offer additional support to their inhabitants in terms of employment, skills development, housing, energy renovation and heating.
4. **Water management**, which aims at providing water management solutions in agriculture through the upgrade of existing and the development of new water networks and systems, the establishment of nature-based water retention solutions, the strengthening of the

monitoring system and the establishment of new sustainable water management communities.

5. **Sustainable green transport**, which aims to make public transport more attractive and the transport sector more sustainable through the creation of an integrated single tariff system, the improvement of the rail network, in particular in the capital region, as well as the replacement of old fossil fuel buses by electric ones.
6. **Energy – green transition**, which aims at the creation of additional energy production capacities based on renewable energy sources, at improving the electricity grid, and at the integration of energy production capacities from weather-dependent renewable energy sources into the electricity network in a secure and flexible way, as well as at improving energy efficiency of buildings.
7. **Transition to the circular economy**, which contributes to the uptake of innovative solutions such as chemical recycling.
8. **Health**, which aims to modernise hospital-level care, strengthen primary care, expand the use of digital tools in health and long-term care, and eradicate the practice of informal gratuity payments.
9. **Governance and public administration**, which aims to address the deficiencies and shortcomings in the anti-corruption framework, including through the establishment of new bodies to ensure independence oversight, as well as increased prosecutorial effort and means to enforce the inaction of prosecutorial or investigative bodies; to address the lack of competition in public procurement; to strengthen the independence of the judiciary; to strengthen public oversight through increased transparency of public data and means to access such data; to improve the quality and transparency of decision-making, including by a more systematic and effective involvement of social partners and stakeholders; to improve the efficiency of public expenditure through a set of spending reviews; and to simplify the tax system and reinforce it against the risk of aggressive tax planning.

Table 4: Overview of components and associated costs

| Component | Costs (EUR million) |
|--|--------------------------------|
| 1: Demography and public education | 621 |
| 2: Highly qualified, competitive workforce | 692 |
| 3: Catching-up settlements | 225 |
| 4: Water management | 145 |
| 5: Sustainable green transport | 1 414 |
| 6: Energy – green transition | 1 246 |
| 7: Circular economy | 109 |
| 8: Health | 1 306 |
| 9: Governance and public administration | 66 |
| Total | 5 824 |

3.2. Implementation aspects of the plan

Consistency with other programmes

The relevant section of the plan describes in general how its measures are consistent with the main European strategic documents, in particular with the **National Energy and Climate Plan (NECP)** and relevant sectoral strategies. This is for instance the case for the measures aiming to increase energy efficiency and renewable energy consumption of, among others, schools and higher education institutions and social housing (in components 1 and 2), modernising the heating systems of residential houses and increasing the share of renewable energy sources for private homes through solar panels and the necessary upgrade of electricity network systems (in component 6), as well as installing solar power plants to benefit households of disadvantaged settlements (in component 3). Investments in low-emission/zero emission vehicles as well as in sustainable public transport (in component 5) will also have a positive effect on reaching the objectives of the NECP.

Under the new EU-level programming period (2021-2027), the **Just Transition Fund (JTF)** will be a key tool to mitigate the negative impacts of the decarbonisation of the selected most affected regions, by financing the diversification and modernisation of the local economy. The plan briefly describes complementarities with the use of the JTF and how measures in the plan complement the efforts of the JTF in the most affected regions in realising their territorial just transition plans. Particular effort will need to be paid to ensure this complementarity and the mutually reinforcing synergies for the affected regions when implementing the related measures in the plan in parallel with the territorial just transition plans.

The plan recognises the importance of continuing the **Youth Guarantee** in view of the situation of young people, which was aggravated by the COVID-19 pandemic. It generally reflects on ensuring consistency with such measures, which should be pursued mainly with funding under the cohesion policy programmes. The plan will help to implement a number of relevant measures to help the younger segment of the society, notably through its components on education, high-skilled workforce and catching up municipalities.

The plan recognises the important synergies with **cohesion policy** and stresses that complementarities and potential overlaps will be systematically and continuously assessed at different levels of implementation (e.g. strategic, programme and project levels). This should be done, in particular, through close monitoring (including through monitoring committees and their thematic sub-committees), a joint IT system, a dedicated mechanism to check for synergies and avoidance of double funding, as well as through a coordination committee that should be tasked to explicitly review this aspect. Particular emphasis will need to be placed on ensuring complementarities, synergies and the prevention of double funding throughout the different phases and levels of implementation. The plan sets out detailed tables identifying the approach to build synergies and ensure complementarity with financing envisaged under the 2021-2027 Partnership Agreement and cohesion policy programmes at a strategic level. While these documents are still under finalisation, the approach presented, and the procedures described in the plan, suggest that arrangements are in place. These arrangements can ensure the necessary complementarities and the avoidance of double funding when implementing these programmes and the measures in the

plan. Ensuring complementarities and synergies is also important when it comes to the implementation of ongoing cohesion policy programmes (2014-2020) and additional funding received from REACT-EU.

The **Technical Support Instrument (TSI)** provides expertise in building capacities to implement the plan in a number of areas. These areas may concern the green and digital transformation, revenue administration and public financial management, governance and public administration, sustainable growth and business environment, labour market, education, health and social services, the financial sector and access to finance.

Administrative organisation of the implementation of the RRP

The plan sets out the administrative organisation for the implementation of the measures it contains. The Hungarian implementation structure largely builds on the management and control system applied for the implementation of cohesion policy funding. This is seen as an effective way to build on the experience acquired in the management of EU funds. This should ensure close coordination and complementarity between the two funding streams and to avoid the risks of overlaps and double funding.

The main strategic decisions are taken by the government, which relies on its Development Policy Coordination Committee (a preparatory committee of relevant high-level officials responsible for the implementation of different types of Union support) to ensure the proper coordination of the programming and implementation of Union funding, including that under the RRP.

The overall responsibility for the implementation of the RRP lies with the minister responsible for the implementation of Union support, who is also responsible for the implementation of cohesion policy funding. The minister will be responsible for coordinating and monitoring the implementation of the RRP as a whole and for informing the government on progress in implementation, as well as for ensuring the avoidance of double funding. The minister will be responsible for ensuring the effective implementation of the RRP, including for the effective protection of the financial interests of the Union, putting in place and implementing effective policies to prevent, detect and correct fraud, corruption, conflict of interest, double funding and other irregularities.

The National Authority in charge of the day-to-day implementation of the RRP is the 71-staff strong office of the Deputy State Secretary in the ministry responsible for the implementation of Union support. The National Authority will be acting as the single contact point for the RRP and liaising with the European Commission. It will support the minister responsible for the implementation of Union support in its above tasks by monitoring the implementation of the plan, notably the fulfilment of milestones and targets, by ensuring sound financial management and performing controls on implementing bodies and final recipients, and by implementing effective policies to prevent, detect and correct serious irregularities like fraud, corruption, conflict of interest and double financing. The National Authority will be responsible for communicating with the European Commission on the implementation of the plan and for the drawing up and submission of payment requests and the accompanying management declarations. Implementation of investment measures will generally take place in the form of providing grants

based on calls for proposals, in a similar manner as under the cohesion policy funds. These are either directly carried out by the National Authority or through implementing bodies (and in one case through a sub-granting body).

In order to strengthen the effectiveness of the prevention and detection of conflict of interest, reinforced rules have been put in place and their application will be controlled regularly by a newly set-up Directorate for Internal Audit and Integrity, established within the ministry responsible for the implementation of Union support. The work of this Directorate will be supervised by a new Integrity Authority that Hungary committed to establish, and confirmed in the RRP. The work of this Directorate will be part of the internal control system and thus will be subject to audits from the audit authority of the RRP (see below).

The implementation tasks of the National Authority will be supported by the work of sectoral ministries, which will ensure the alignment and consistency of the implementation of measures with sectoral policies and provide professional expertise in assessing their quality. Line ministers also have the responsibility of ensuring the complementarity of measures in the RRP with measures financed from other sources, as well as to ensure their consistency with the relevant Union and national strategies. All ministers will be supported by a dedicated staff dealing with RRP-related matters under their responsibility amounting to a total of 50 staff altogether.

The National Authority will also be supported in the implementation and monitoring process of the plan by implementing bodies which operate under the supervision and responsibility of the National Authority. These bodies include for instance the Hungarian State Treasury, and the National Research, Development and Innovation Office. The National Authority will provide methodological support and guidance to implementing bodies. Implementing bodies need to have sufficient resources and adequate professional experience to effectively carry out the tasks assigned to them and they need to have effective internal control arrangements in place.

The Directorate General for the Audit of Union Support (EUTAF) will be the audit authority of the RRP. EUTAF has relevant audit experience from auditing cohesion policy programmes in Hungary. The independence of the EUTAF will be reinforced through legislative provisions to ensure that it has sufficient resources to effectively carry out its responsibilities in a timely manner. Moreover, the plan already envisages a number of dedicated audits to be carried out by EUTAF to confirm the adequate fulfilment of certain relevant measures. In addition, a dedicated measure aims to strengthen the cooperation with the European Anti-Fraud Office (OLAF) and to ensure that OLAF has all the means at its disposal to effectively conduct its investigations in Hungary.

Independent oversight of the implementation of the RRP is envisaged through the setting up of a monitoring committee in which at least half of the members will be provided by independent civil society organisations that have sufficient and relevant expertise in the main areas relevant for the measures in the RRP. The committee will have strong oversight powers and the National Authority will be obliged by law to provide it with all data relevant for it to carry out its tasks.

The detailed tasks and responsibilities of the different bodies involved in the coordination, implementation, monitoring, control and audit of the RRP are set out in a government decree. The necessary functionalities of the monitoring system ensuring the collection of and the

reliability of data necessary for the implementation of the plan are expected to be fully functioning and operational at the latest before the submission of the first payment request.

Gender equality and equal opportunities for all

The RRP includes measures expected to help address challenges in the area of gender equality and equal opportunities for all. The plan contains a short chapter with reference to the European Pillar of Social Rights and its three pillars (equal opportunities, fair working conditions and social protection and social inclusion). The needs of disadvantaged groups, such as Roma, are specifically targeted in component 3. Other measures, such as in terms of access to education and skills, and the creation of new childcare places for the 0 to 3 age group (nurseries), are expected to contribute to gender equality and equal opportunities for all. Transport measures are also expected to facilitate access to services while new transport infrastructures and vehicles are expected to be accessible to persons with disabilities. The plan does not include references to data disaggregated by equality grounds, with the exception of the gender employment gap.

Stakeholder consultation

Hungary described a number of consultation activities in its plan. At the end of 2020, the first outline of the RRP was presented in press briefings, and a summary of the draft RRP was published on the government's website. In January 2021, a media campaign with targeted ads and banners was launched to direct the public's attention to the government website, inviting for comments from the general public on the development plans of Hungary to be financed from the RRF and cohesion policy funds. Draft components were published for comments in March 2021, and the entire draft RRP was published for comments on the website of the government in April 2021. The government also reached out directly to 461 organisations, such as municipalities, non-governmental organisations, higher education organisations, trade unions or science organisations to encourage them to provide their views and suggestions. Of those, 88 submitted input, with over 1 260 different proposals. Most comments concerned sustainable transport, energy, education, circular economy and healthcare. Certain comments led to amendments of the RRP, for instance to better focus the scope of the measure supporting sustainable heating systems for households. However, some stakeholders criticised the process, arguing that the detailed contents of the RRP was not made public early enough to allow for them to make meaningful comments and that their comments could not be taken into account. In addition to the formal consultation, several stakeholder conferences were held at regional and national levels, with different thematic focus, over the year 2021. Hungary published a new version of the draft RRP in August 2021, but did not make public any amended version since then, and did not engage in additional consultation processes to cover amendments made to the RRP in 2022.

To ensure ownership by the relevant actors, success on the ground and a lasting impact, it is crucial to involve all public authorities and stakeholders, including social partners, in the design and implementation of the measures included in the RRP. To this end, the plan contains a measure to develop a strategy for ensuring the effective involvement of stakeholders in the implementation of the RRP, as well as the setting up a monitoring committee with strong participation from independent civil society organisations to closely follow the implementation of the RRP and provide recommendations to the National Authority. Hungary may also receive

support from the Technical Support Instrument to strengthen this central aspect of the RRP delivery.

Security self-assessment

The Hungarian plan does not include a security self-assessment for investments in digital capacities and connectivity. Hungary intends to fund digital connectivity investments mostly from cohesion policy funds. However, a number of projects, in particular related to the digitalisation of critical infrastructures in healthcare, public administration and the energy sector, will have high requirements in terms of data and infrastructure security. The security-related provisions of the plan would therefore have to be closely monitored during the implementation of the plan.

Cross-border and multi-country projects

The RRP does not contain any cross-border or multi-country projects. The renovation of the railway sections Almásfüzitő-Komárom and Békéscsaba-Lőkösháza (Component 5 – Sustainable Green Transport) will have a cross-border dimension as it will allow for the removal of bottlenecks in the relevant TEN-T corridor and improve long-distance freight and passenger transport in the region.

Communication strategy

The communication related to the RRP aims to raise awareness on the objectives and added value of the RRF, demonstrating it through the reforms and investments implemented within the framework of the RRP. The RRP outlines the overall approach to communication, including as regards the preparation and implementation of the different measures. The RRP envisages communication to the wider public on the progress of implementation, fulfilment of milestones and targets, and achievements. Communication activities, essentially awareness-raising, have already been launched by the authorities during the preparatory phase of the RRP and in relation to certain already ongoing measures. Besides informing the general public on the measures of the RRP, there are also dedicated tools targeting the applicants to provide them with practical information, such as tutorial videos used for facilitating the application.

Messages are placed on multiple channels so that communication activities are mutually reinforcing. A dedicated website for the RRP has been created on the platform used for Union support: palyazat.gov.hu. The website serves as the basic platform for all communications on the RRP. It contains information on the plan, measures, tenders and calls, and related results. Social media is also expected to be used to inform the general public on implementation. While electronic communication channels are gaining in importance, the traditional channels and tools such as paper-based publications or leaflets will still be used. Informative events, such as information days, workshops and conferences, will be organised. It is expected that public events presenting the results of the RRP will be organised at least once per year.

The RRP sets out the general arrangements under which final recipients need to acknowledge the use of Union support and ensure the visibility of Union funding. Hungary aims to exploit joint communication efforts with cohesion policy which may result in increased

visibility highlighting the benefit of Union support. To ensure a standardised and adequate presentation of the funding, a Communications Handbook and a Design Handbook for final recipients have been issued and are available on the website for EU development funds. The emblem of the Union and an appropriate funding statement that reads ‘funded by the European Union – NextGenerationEU’ is to appear on projects funded by the RRF, according to the handbooks. In order to support the final beneficiaries in their communication obligations, a “display maker” is available on the website, which is to help them prepare the sign displaying the Union funding. While Hungary acknowledges the source of Union support, it uses the branding of ‘Széchenyi Terv Plusz’ (Széchenyi Plan Plus – an umbrella term used by the government to cover all Union support in Hungary) to communicate on funding from the RRF as well as from cohesion policy funds. This branding prominently features in the logo, which also presents the Union flag with the funding statement and the Hungarian coat of arms are also presented.

A detailed communication strategy is expected to be developed by Hungary with the involvement of experts’ support in the context of the Technical Support Instrument.

State aid

State aid and competition rules fully apply to the measures funded by the Recovery and Resilience Facility. Union funds channelled through the authorities of Member States, like the RRF funds, become State resources and can constitute State aid if all the other criteria of Article 107(1) TFEU are met. When this is the case and State aid is present, these measures must be notified and approved by the Commission before Member States can grant the aid, unless those measures are covered by an existing aid scheme or comply with the applicable conditions of a block exemption regulation, in particular the General Block Exemption Regulation (GBER) declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 TFEU⁶. When State aid is present and it requires notification, it is the duty of the Member State to notify State aid measures to the Commission before granting them, in compliance with Article 108(3) TFEU. In this respect, the State aid analysis carried out by Hungary in the recovery and resilience plan cannot be deemed a State aid notification. In as far as Hungary considers that a specific measure contained in the recovery and resilience plan entails de minimis aid or aid exempted from the notification requirement, it is the responsibility of Hungary to ensure full compliance with the applicable rules. In addition to complying with EU’s State aid rules, measures taken under this framework should be compatible with the EU’s international obligations, in particular under World Trade Organization rules.

⁶ Commission Regulation 651/2014, OJ L 187, 26.6.2014, p. 1.

4. SUMMARY OF THE ASSESSMENT OF THE PLAN

4.1. Comprehensive and adequately balanced response to the economic and social situation

The Hungarian recovery and resilience plan aims to provide a comprehensive and balanced response to the consequences of the pandemic crisis, while tackling important structural socio-economic challenges. It makes an explicit reference to the six pillars of the Recovery and Resilience Facility pursuant to Article 3 of the RRF Regulation, namely: (i) green transition, (ii) digital transformation, (iii) smart, sustainable and inclusive growth, (iv) social and territorial cohesion, (v) health and economic, social and institutional resilience, and (vi) policies for the next generation. The plan presents a global vision for an innovative and competitive economy, supporting economic growth through the green transition and digital transformation. All pillars are covered by at least one component and all components contribute to several pillars. The range of actions of the plan corresponds to those of the Facility with an appropriate overall balance between pillars. The coverage of the components compared to the six pillars of the RRF is summarised in Table 5.

Table 5: Coverage of the six pillars of the Facility by the components of the Hungarian recovery and resilience plan

| | Green transition | Digital transition | Smart, sustainable & inclusive growth | Social and territorial cohesion | Health, and economic, social and institutional resilience | Policies for the next generation |
|--|------------------|--------------------|---------------------------------------|---------------------------------|---|----------------------------------|
| 1. Demography and public education | ○ | ● | ○ | ○ | ○ | ● |
| 2. Highly qualified, competitive workforce | ○ | ○ | ● | ● | ○ | ○ |
| 3. Catching-up settlements | ○ | | | ● | ○ | ○ |
| 4. Water management | ● | ○ | | | | |
| 5. Sustainable green transport | ● | ○ | | ○ | | |
| 6. Energy - green transition | ● | ○ | | | | |
| 7. Transition to the circular economy | ● | | ○ | | | |
| 8. Health | ○ | ○ | | ○ | ● | |
| 9. Governance and public administration | | ● | ○ | | ● | |

Key: '●' investments and reforms of the component significantly contribute to the pillar
 '○' the component partially contributes to the pillar

The Hungarian recovery and resilience plan seeks to tackle key challenges of Hungary related to climate and environment. It underlines the contribution of reforms and investments contained in the plan to achieving the EU's carbon neutrality target by 2050. This calls for measures aiming at additional renewable energy capacity and reduced greenhouse gas emissions. Hungary faces challenges with removing bottlenecks in grid capacities, making grid operation smarter and ensuring the flexible and secure integration of renewable energy capacities. Due to the lack of necessary network capacities and administrative barriers, there is a risk that investors may postpone investments in renewable electricity generation.

Given the scale of green challenges in Hungary, the share of 48.1% of the plan's total allocation attributed to climate-related actions appears appropriate.

The plan features a number of measures in the energy sector. Hungary's ambition is to increase the share of carbon-free electricity production, to decrease its dependence on fossil fuels and to increase the security of supply through actions both on the regulatory and on the investment side. The plan envisages a comprehensive set of reforms and investments to promote the green transition and to address the challenges of the energy crisis, in particular through a complete overhaul of legislation in the electricity sector, to ensure that very significant additional capacities of renewable energy production will be available in Hungary by the end of the RRF period. In order to promote the deployment of power plants relying on renewable energy sources, the plan includes measures to remove obstacles to the development of wind energy, to improve permitting procedures for renewable energy production, to simplify the grid connection of small renewable power plants, to increase transparency and predictability of the grid connection procedure, and to introduce separate accounting rules for the electricity fed into the grid and electricity consumed from the grid. These measures are complemented by significant investments into additional solar energy capacity, mainly in residential buildings and in disadvantaged settlements. Major investments into the electricity grid and storage facilities are expected to ensure the flexible and secure integration of additional electricity generated by renewable energy sources. Smart meters financed from the RRF are expected to contribute to the optimisation of electricity demand. With the support of these measures, the total capacity of renewables energy production authorised to be connected to the grid is expected to reach at least 10 000 MW by 2026. A reform and investments in renovation of public buildings, in particular in education and healthcare facilities, as well as of residential buildings, notably with the replacement of windows and the modernisation of residential heating, is expected to contribute to increasing energy efficiency and reducing greenhouse gas emissions.

The plan includes substantial investments for the greening of the transport sector. Transport is one of the sectors with the highest growth in greenhouse gas emissions in Hungary. The measures in the plan are expected to lead to a reduction of emissions by encouraging the use of environmentally friendly modes of transport and more generally by strengthening alternatives to individual cars and road freight. The transport infrastructure networks should in particular benefit

from an upgrade of railways and from new electric buses. In parallel, the use of public transport should be facilitated by the setting up of a single tariff, ticketing and passenger information system.

The plan also comprises reforms and investments aiming at promoting sustainable water management. The proposed measures should contribute to restoring water supply and to improve water retention in the areas affected by water scarcity through the development of new water networks and the reconstruction of existing systems, as well as nature-based solutions for water retention. The development of an effective monitoring system at local and national levels should contribute to contain the risk of excessive use and depletion of water resources, with damaging consequences for the affected ecosystems. Awareness-raising measures are also planned for farmers to support a shift to a more sustainable use of water in the agricultural sector. These awareness-raising measures include targets to establish new sustainable water management communities and to have 50 000 hectares of arable land undergone changes to water saving agricultural practices, which are expected to be met through a combination of EU and national financial sources, which could include the Rural Development Programme (RDP) and the CAP Strategic Plan. The plan contains safeguards to avoid significant impact on the relevant water bodies and ensure that the good ecological status of the relevant surface and groundwater bodies will be achieved.

The plan contains a dedicated component on the transition to the circular economy, aiming at establishing an overarching circular economy strategy and waste management plan, revising the legislative framework and paving the way for a modern waste management system. This will be supplemented by investments into chemical recycling, which are expected to contribute to increased recycling. The transition to a circular economy is expected to make a significant contribution to the efficient management of waste, serving both sustainability and economic competitiveness objectives.

Digital transformation

With an overall contribution to digital priorities at 29.8% of the total allocation, the plan includes a significant set of actions supporting the digital transformation of the economy. The plan focuses on improving digital skills, digital curricula and infrastructure in public education, as well as accelerating the digitalisation of public administration and of the healthcare, transport, energy and water sectors. Almost all components include measures relevant for digitalisation.

Significant measures are envisaged to improve digital skills in education and training. These include measures related to the training of students and teachers and the provision of digital equipment to pupils and staff. The plan also supports digital skills development in higher education, digital curricula in vocational education and training, as well as digital and green transition in scientific research.

Another set of measures relates to new ICT solutions and services for the modernisation of the public administration. To ease compliance by firms, the plan includes measures for the digital transformation of tax procedures. The plan also contains measures for the further development of the electronic procurement system and for the file management system of the prosecution service.

The plan also aims at the digitalisation of the healthcare sector, notably through the creation and linking of new and existing health information databases. This data will be analysed with a view to informing health policy interventions and improve prevention and early detection of diseases, as well as for the development of personalised services. The plan also includes investments in the development of telemedicine and remote patient monitoring tools targeting elderly people.

Relevant actions are also planned in the transport, energy and water sectors. The plan includes measures that will contribute to the digitalisation of the railway network. These consist of investments into centralised traffic management and digital control equipment of the rolling stock as well as the introduction of a single national tariff, ticketing and passenger information system for bus and rail. In the energy sector, the plan also includes the development of smart grids and smart meters, thus contributing to create the necessary conditions for better integration of weather-dependent renewable energy production in the electricity system. Finally, the plan features measures to improve the monitoring system for water management.

Smart, sustainable and inclusive growth

The plan features actions across various policy areas related to smart, sustainable and inclusive growth. The plan contains measures that support the establishment of R&D consortia (national laboratories) and the development of R&D cooperation within and across sectors to enhance innovation performance. A measure on increasing the number of places in childcare facilities aims to improve the possibilities for parents to return to the labour market and decrease the gender employment gap.

The plan also sets ambitious, binding targets to improve competition in public procurement and decrease the share of procedures resulting in single bids significantly, by attracting more micro-, small and medium-sized enterprises to apply to tenders, and developing a comprehensive performance measurement framework. These measures are expected to contribute to a higher productivity.

The plan also puts forward measures that strengthen a smart, innovative and sustainable waste management industry and secondary raw materials market. These measures include the completion and entry into operation of a chemical recycling and green hydrogen production plant.

Social and territorial cohesion

The plan includes actions contributing to social and territorial cohesion, in particular through integrated social policy support in the most disadvantaged settlements. Component 3 of the plan includes measures for the construction of social housing, the improvement of housing conditions and community-oriented pedagogy in the 300 most disadvantaged settlements in Hungary. Further measures aim to foster labour, social and skills development based on local

specificities and the strengthening of the local economic culture in the settlements, notably through training, personal mentoring, personalised services and employment opportunities. Such actions are expected to lead to higher employment of disadvantaged groups living in those settlements (including Roma), among other results.

The plan aims to increase the availability of qualified labour force by enhancing accessibility to modern education and training, including for disadvantaged students and vulnerable groups. The plan includes several measures to strengthen higher education, adult learning and vocation education and training. To this end, the plan envisages a reform on reviewing and improving study fields in higher education by including more practice-oriented elements in the training requirements. New training courses offering micro-credential certificates are expected to be developed in higher education. The plan includes measures to improve the quality of the learning environment in universities, including better digital equipment, new trainings, renovated buildings and new or modernised learning spaces. Measures in vocational training are also planned to increase the availability of skilled workers. The plan envisages to develop new digital learning materials, digital equipment and renovated classrooms for students in vocational education and training. The plan envisages the development of a central examination centre (located in Budapest) to create the conditions for high-quality professional examination in certain professions for which the network of examination centres does not ensure appropriate territorial coverage at regional level.

The plan includes a reform for improving the sustainability and adequacy of the pension system. The reform puts in place a transparent process with involvement of stakeholders and international experts, which is expected to help the authorities to design effective measures to address challenges of the pension system. The proposed measure aims to ensure adequate pensions for lower-income pensioners and should thus improve the fairness of the pension system.

The plan also includes actions to improve access to healthcare services. These measures should result in more comprehensive primary care services, thanks to a greater role for general practitioners' communities and focus on prevention. Measures to reorganise and modernise the hospital network are also expected to address challenges related to unequal access to care, in particular for disadvantaged groups and those living in disadvantaged areas.

In addition, the plan also includes measures to develop urban, suburban and regional sustainable mobility, contributing to improving social and territorial cohesion.

Health and economic, social and institutional resilience

The plan is expected to improve resilience in the health sector through measures to modernise the infrastructure and network of hospital care, improve primary care service, expand the use of digital health tools and strengthen health information systems. Another relevant measure aims to eradicate the practice of informal gratuity payments in healthcare services while creating better financial and working conditions for doctors, thereby also contributing to addressing the shortage of staff in the healthcare sector.

The plan is also expected to improve social resilience. Investments are planned to increase the construction and renovation of social housing, improve housing conditions and establish solar power plants in the 300 most disadvantaged settlements in Hungary. Investments in digitalisation of equipment, teaching and learning methods are expected to contribute to enhancing social resilience. Developing digital skills and modernising adult training are expected to facilitate the upskilling and reskilling of the population and improve the adaptability of the labour force.

The simplification of the tax system, together with measures to address the risk of aggressive tax planning, is expected to contribute to economic resilience. The reduction in the number of taxes will improve the work of the tax administration and should facilitate tax compliance by companies. The plan also includes measures to tackle the risk of tax avoidance, by introducing stronger rules on minimum conditions for companies to prove the performance of a real activity, aimed at preventing them from attracting profits without corresponding economic activity, and broadening the non-deductibility rules for outbound royalty and interest payments towards zero- and low-tax jurisdictions. On the expenditure side, several spending reviews are planned to facilitate savings and efficiency gains.

The plan also puts forward measures to increase institutional resilience by improving the quality of decision-making, more informed administrative decisions and increasing the efficiency of the public administration. Reforms to strengthen judicial independence are expected to raise the standard of judicial protection and also improve the investment climate by eliminating undue influences and making sure the position of judges is secured against discretionary decisions. The introduction of regular checks on compliance with access to public information obligations of public bodies, improved cooperation between the prosecution and other bodies in the field of anti-corruption, as well as measures aiming to increase competition in public procurement are also expected to contribute to improving the quality of governance and institutions.

Policies for the next generation, children and young people

The plan contains measures to equip the next generation with the right knowledge and skills, improve access to quality public education and support availability of early childhood education and care places for children below 3. The plan includes measures to raise the attractiveness of the teacher profession by increasing the wages of all teachers in the public education system, with particular attention to teachers working with disadvantaged pupils and entry-level teachers. The plan envisages legislative changes to support the integration of disadvantaged pupils into the mainstream education by financially penalising schools where the proportion of disadvantaged students is lower than the average proportion in the settlement where the school is located. The plan includes measures to integrate small, low-performing lower secondary classes into larger schools in the neighbouring settlements to improve the access of students to quality education in lower secondary schools and thus address challenges related to shortages of teachers and quality of teaching. The plan also includes measures to improve the quality of specialised services provided to schools integrating students with special education needs, those in long-term care and children who require specialised pedagogical services. The plan also includes measures on improving the managerial skills of school heads and their deputies and

providing qualifications in additional disciplines for teachers. Another measure relates to the expansion and modernisation of early childhood education and care services and facilities.

A strong focus of the plan is to improve access to digital education and digital skills. At least 579 000 digital notebooks should be purchased and distributed, of which at least 55 000 should be provided for teachers and at least 10 000 for schools to develop their IT classrooms. In addition, 3 100 schools should be provided with interactive display tools and devices to develop student creativity, problem-solving capacity and algorithmic and programming competences, such as robots, drones and special computers.

The plan also contains measures to strengthen universities and vocational education and training. The plan includes measures to develop micro-credential courses and digital learning content and infrastructure in higher education and vocational education. It also envisages support for research, development and innovation, in particular for entities engaging in cooperation with businesses.

Taking into consideration all reforms and investments envisaged by Hungary, its Recovery and Resilience plan represents, to a large extent, a comprehensive and adequately balanced response to the economic and social situation, thereby contributing appropriately to all six pillars referred to in Article 3 of the RRF Regulation, taking the specific challenges and the financial allocation of Hungary into account. This would warrant a rating of A under the assessment criterion 2.1 in Annex V to the RRF Regulation.

4.2. Link with country-specific recommendations and the European Semester

The plan contributes to effectively addressing a significant subset of the structural challenges identified in the Country-Specific Recommendations (CSRs) of 2019, 2020 and 2022. The plan contains an extensive set of mutually reinforcing reforms and investments addressing the challenges related to ensuring a swift and smooth green and digital transition. In particular, a series of actions is expected to promote the clean and efficient production and use of energy, sustainable transport, water and waste management and transition to the circular economy. In addition, various measures aim at improving digital infrastructure and skills, as well as the modernisation and digitalisation of public administration. Long-standing challenges in the areas of healthcare, education and training are also addressed with significant measures. Important reform steps and investments are envisaged on the fight against corruption, judicial independence, the quality of decision-making, public procurement, the pension system, taxation and aggressive tax planning. These are expected to contribute to addressing underlying challenges to a large extent. Taking into account the size of the financial contribution, the plan satisfactorily addresses most of the 2019, 2020 and 2022 country-specific recommendations.

Table 6: Mapping of country challenges identified in 2019-2020-2022 country-specific recommendations and Hungary's RRP components

| Country challenges | Associated CSR (2019-2020-2022) and European Semester recommendations | 1 – Demography and school education | 2 – Highly qualified and competitive workforce | 3 – Catching up settlements | 4 – Water management | 5 – Sustainable green transport | 6 – Energy | 7 – Transition to the circular economy | 8 - Health | 9 – Governance and public administration |
|---|---|-------------------------------------|--|-----------------------------|----------------------|---------------------------------|------------|--|------------|--|
| Renewable energy, energy infrastructure & networks | 2019.3.2, 2020.3.4, 2022.6.1, 2022.6.2, 2022.6.3, 2022.6.4 | | | ○ | | | ● | ○ | | |
| Energy efficiency | 2019.3.5, 2020.3.4, 2022.6.5 | ○ | ○ | | | | ● | | ○ | |
| Environmental policy & resource management | 2019.3.4, 2019.3.5, 2020.3.6, 2022.5.1 | | | | ● | | | ● | | |
| Digitalisation of public administration and public services | 2020.3.8 | | | | | | | | ○ | ● |
| Digitalisation of businesses | 2022.5.2 | | | | | | | | | |
| Transport | 2019.3.3, 2020.3.5, 2022.6.6 | | | | | ● | | | | |
| Single market, competition & state aid | 2019.4.5, 2022.4.5 | | | | | | | | | |
| Public procurement & concessions | 2019.3.6, 2020.4.3, 2022.4.6 | | | | | | | | | ● |
| Research & innovation | 2019.3.1, 2020.3.7, | | ● | | | | | | | |

| Country challenges | Associated CSR (2019-2020-2022) and European Semester recommendations | 1 – Demography and school education | 2 – Highly qualified and competitive workforce | 3 – Catching up settlements | 4 – Water management | 5 – Sustainable green transport | 6 – Energy | 7 – Transition to the circular economy | 8 - Health | 9 – Governance and public administration |
|---|---|-------------------------------------|--|-----------------------------|----------------------|---------------------------------|------------|--|------------|--|
| | 2022.5.4 | | | | | | | | | |
| Active labour market policies, incentives to work & labour market participation | 2019.2.1, 2020.2.1, 2022.3.1 | ○ | | ○ | | | | | | |
| Pension systems and active ageing | 2022.1.4 | ● | | | | | | | | |
| Poverty, social inclusion & social protection | 2019.2.2, 2020.2.2, 2022.3.2 | | | ○ | | | | | ○ | |
| Healthcare | 2019.2.1, 2020.1.3, 2022.3.4 | | | | | | | | ● | |
| Taxation policy | 2019.4.4, 2022.4.4 | | | | | | | | | ● |
| Tax administration, tax evasion & tax avoidance | 2019.4.4, 2020.5.1 | | | | | | | | | ● |
| Corruption | 2019.4.1, 2022.4.1 | | | | | | | | | ● |
| Justice system | 2019.4.2, 2022.4.2 | | | | | | | | | ● |
| Quality of law making | 2019.4.3, 2020.4.2, 2022.4.3 | | | | | | | | | ● |
| Education | 2019.2.3, 2020.2.3, 2022.3.3 | ● | ○ | ○ | | | | | | |

Key: “●” investments and reforms of the component significantly address the challenge
“○” the component partially addresses the challenge

The Hungarian recovery and resilience plan presents the links of the plan's nine components with the challenges identified by the CSRs. In particular, a summary table displays the components and measures of the plan and their correspondence to the 2019-2020-2022 CSRs. Overall, the table illustrates a high degree of CSR coverage envisaged to be achieved by the Hungarian RRP.

The plan contains significant measures in response to the challenges posed by the green transition, notably by promoting the clean and efficient production and use of energy as well as energy and resource efficiency (2019 CSR 3, 2020 CSR 3 and 2022 CSR 6). In order to promote the green transition and in light of the energy crisis provoked by Russia's war of aggression against Ukraine, a comprehensive set of reforms to the legal framework of Hungary's electricity sector is envisaged, aiming to establish a supportive regulatory environment for creating significant additional capacities based on renewable energy sources. The plan includes in particular significant reforms to encourage the development of wind power plants, to facilitate the permitting procedures for renewable energy production and to increase the transparency and predictability of grid connection procedures. Moreover, the plan supports investments related to the grid development and storage facilities, with a view to integrating the renewable energy production capacities into the electricity network in a secure and flexible way. It also provides financial support to the creation of additional renewable energy production capacity by supporting the installation of residential solar panel systems. In parallel, the construction of photovoltaic power plants in some of the 300 most disadvantaged settlements is expected to contribute to the clean and efficient production of energy. Finally, several measures aim at improving the energy efficiency of buildings. A reform is expected to introduce minimum standards requiring at least 30% energy consumption reduction for building renovation support schemes financed from EU funds. Investments are also envisaged to support households for installing electric heating systems and storage units, as well as for the replacement of windows, complemented by investment in the energy-efficient renovation and construction of buildings in the education (early childcare, schools, universities), vocational education and training and healthcare sectors.

The plan contains significant measures to address challenges related to transport infrastructure and sustainable transport (2019 CSR 3, 2020 CSR 3 and 2022 CSR 6). They include the modernisation of suburban railways in the region of Budapest, the upgrade of railways section in the TEN-T, the purchase of zero emission buses for public transport, the modernisation of the management system of railway lines, and the introduction of a single price- and information system for public transport. These measures are expected to lead to a reduction of emissions originating from transport by encouraging the use of environmentally friendly urban and suburban modes of transport and more generally by strengthening alternatives to individual cars and road freight.

The plan includes dedicated components to address challenges related to the water and waste management sectors (2019 CSR 3, 2020 CSR 3 and 2022 CSR 5). A component aims to improve sustainable water management, including through the promotion of nature-based water retention. Another component has the strategic objective to facilitate the transition to a circular economy in Hungary, notably through reforms and investments in the field of waste management and

recycling. The plan aims at reforming the legal framework for waste management and to support the implementation of chemical recycling investments.

The plan includes various measures to support digital transformation (2020 CSR 3 and 2022 CSR 5). They target improved e-government solutions in a number of areas, digital skills in education and training, as well as digital connectivity. Digital investments are planned in public education, water management, sustainable transport, energy, healthcare as well as in the public administration sector.

The plan includes an ambitious set of measures to improve competition in public procurement (2019 CSR 3, 2020 CSR 4 and 2022 CSR 4). Hungary committed to significantly reduce the share of public procurements resulting in single bids for procedures financed either fully or partially from Union support or solely from national resources to below 15% and maintain it below that level. This will be well below the average for EU Member States in 2020⁷. Annual targets are included in the plan in this regard. Each of those annual targets will be audited to ensure that the reported levels are accurate. To achieve these targets, Hungary committed to develop and continuously make use of a monitoring tool assessing the level and cause of public procurement procedures resulting in single bids; to develop a performance measurement framework to regularly assess the efficiency and cost-effectiveness of public procurements and the reasons for and effects of limited competition in the sectors most affected by the low level of competition; and to set up and implement an action plan based on good international practices to increase the level of competition in public procurement. In order to facilitate the participation of micro- and small enterprises in public procurements, Hungary plans to develop e-learning and training materials that provide the most important theoretical and practical information to micro- and small enterprises on how they can successfully participate in public procurement tenders. Hungary is expected to set up a voucher scheme providing compensation – based on objective, non-discriminatory and transparent selection criteria – to micro- and small enterprises on a flat-rate basis for their costs associated with their participation in public procurement tenders. Hungary also plans to develop its electronic public procurement platform further, which will allow the bulk download of all contract award notices since 2014 in a machine-readable format to increase the transparency of public procurements and facilitate independent oversight. Overall, all these measures are expected to facilitate access to public procurement procedures and competition in public procurement.

Regarding research and development, the plan contains actions to strengthen the innovation ecosystem in the country (2019 CSR 3, 2020 CSR 3 and 2022 CSR 5). This includes the setting up of national laboratories in five thematic research areas, as well as the delivery of a report on their performance. These national laboratories are formalised research consortia, including universities, research institutes and other public actors (such as the National Food Chain Safety Office and the Hungarian Meteorological Service), with the aim of conducting research and publishing studies in relevant research areas.

⁷ Single Market Scoreboard: Public Procurement https://single-market-scoreboard.ec.europa.eu/policy_areas/public-procurement_en

Issues related to the labour market integration of the most vulnerable groups are addressed mainly by providing support to employment and skills development in disadvantaged settlements, a wide set of education and skills-related measures and the creation of additional early childhood education and care facilities (2019 CSR 2, 2020 CSR 2 and 2022 CSR 3). A dedicated component focuses on the economic development of the 300 most disadvantaged settlements in Hungary. One of the measures consists in the participation of at least 10 000 persons in labour socialisation programmes, which include training, personal mentoring, tailored services and employment opportunities. Other components are focused on strengthening access to quality education and skills, notably digital ones. They include measures for the development of vocational education and training infrastructure. The plan also foresees the creation of 3 593 new childcare places, which are expected to contribute to higher employment of parents with young children and thereby to reducing the gender employment gap.

The plan includes measures to address challenges related to poverty (2019 CSR 2, 2020 CSR 2 and 2022 CSR 3). The plan aims to provide basic services in the 300 most disadvantaged settlements of Hungary through an integrated social policy intervention. This notably includes improving housing conditions in those settlements by expanding the network of social houses through the purchase and renovation of existing housing stock and building of new dwellings. In addition, social solar power plants would be built and operated for the benefit of inhabitants. At the same time, the plan outlines that Hungary is expected to further tackle poverty related challenges in the disadvantaged settlements through complementary investments under the cohesion policy funding, to ensure the continuous presence of social workers, early childhood support and mobile primary healthcare services. Several measures in the education and healthcare sectors are also expected to benefit the more vulnerable parts of the population (including Roma).

A dedicated reform aims to address the recommendation related to the long-term sustainability and adequacy of the pension system (2022 CSR 1). The reform puts in place a transparent process with involvement of stakeholders and international experts, which will help the authorities to design effective measures to address challenges of the pension system. Such measures are expected to contain the currently projected rise in expenditure on pensions as percentage of GDP, thus improving the medium- and long-term sustainability of the pension system. In line with the CSR, those measures are also expected to preserve adequacy and mitigate inequalities in the pension system.

The plan sets out an ambitious agenda to address key challenges of the healthcare system (2019 CSR 2, 2020 CSR 1 and 2022 CSR 3). Such challenges include unequal access to health services, a high prevalence of gratuity payments, excessive reliance on hospital-level care and regional disparities stemming from staff shortages and an uneven distribution of active health workforce across the country. The dedicated component includes a number of significant reforms and investments that have the potential to improve the quality, accessibility and cost-effectiveness of the healthcare system. It also includes a measure to eradicate gratuity payments as part of a wide-ranging reform package according to which the receipt of such payments is criminalised, while doctors' salaries are being substantially increased (exclusively from the national budget) to reduce the incentives to request gratuity payments from patients. This is expected to lead to more efficient and equitable pathways for treating patients in the healthcare sector. The plan also plans

measures to increase the share of general practitioners working in group practice, to increase the number of patients enrolled in health promotion and disease prevention programmes, to review and optimise the hospital network, as well as to develop health digitalisation projects (including a remote health monitoring programme for the elderly), which can offer potentially sizeable savings. In turn, these improvements in cost-effectiveness are expected to help alleviate the long-term fiscal sustainability risks stemming from public spending on healthcare and long-term care.

The plan comprises reforms related to challenges in the area of taxation and aggressive tax planning (2019 CSR 4, 2020 CSR 5 and 2022 CSR 4). Several measures aim at tackling aggressive tax planning more effectively, such as increasing the data reporting on transfer pricing, the introduction of minimum substance requirements for corporate income tax for shell companies, and broadening the scope of non-deductibility rules for outbound payments to zero- and low-tax jurisdictions. Taken together, these measures are expected to contribute to decreasing the room for aggressive tax planning practices, while closing the loopholes that facilitated the transfer of profits to low- or no-tax jurisdictions without corresponding economic activity in Hungary. As such, they are expected to play an equivalent role to that of similar anti-tax avoidance measures, such as withholding taxes. As for tax simplification, the plan includes measures on the digital transformation of tax compliance procedures, on reducing the number of taxes, and on repealing or amending the distortive tax on public utility pipelines.

The plan includes several reforms to reinforce the anti-corruption framework (2019 CSR 4 and 2022 CSR 4). These include the setting up of an Integrity Authority to reinforce the prevention, detection and correction of fraud, conflict of interest and corruption as well as other illegalities and irregularities concerning the implementation of Union support in Hungary, with a particular focus on public procurement. The establishment of an Anti-Corruption Task Force, with the close involvement of independent non-governmental organisations, will serve to examine existing anti-corruption measures and draw up proposals concerning the improvement of detection, investigation, prosecution and sanctioning of corruption practices and other practices such as nepotism, favouritism or ‘revolving doors’ between the public and private sectors. In addition, legislative amendments are expected to extend the personal and material scope of asset declarations as well as to strengthen cooperation with the European Anti-Fraud Agency (OLAF), by providing assistance from national authorities to carry out investigations effectively and to impose financial sanctions on economic operators that do not cooperate. Further legal changes are expected to reinforce the oversight and transparency of the operation of how public interest asset management foundations performing public interest activity and legal persons established or maintained by them make use of Union support, along with the introduction of more stringent rules to ensure the effective prevention, detection and correction of fraud, corruption, conflict of interest and other illegalities related to the implementation of any Union support in Hungary. The anti-corruption framework will also be strengthened by establishing the possibility of a judicial review of decisions of the prosecution service or the investigating authority to dismiss a crime report or terminate criminal proceedings. The plan also includes a measure to fully implement Hungary’s current National Anti-Corruption Strategy and action plan and to prepare a new National Anti-Corruption Strategy and action plan. Moreover, several measures contribute to increasing the transparency of and access to public data, which also reinforces the anti-corruption framework by

facilitating independent oversight. Such measures include setting up and operating a searchable central registry of public spending, eliminating or limiting the costs related to requests for public information, shortening court procedures on cases related to access to public information, and regular checks on all public bodies to assess whether they comply with their respective requirements on providing access to data of public interest. The findings of those checks are expected to be made publicly available.

The recommendation on strengthening judicial independence is addressed by several reforms across different levels of the judicial system (2019 CSR 4 and 2022 CSR 4). They are expected to strengthen the independence and impartiality of courts and judges established by law in accordance with Article 19 of the TEU and the relevant EU acquis, thus raising the standard of judicial protection and improving the investment climate. The measures included ensure that the position and career of judges in terms of leadership of courts, appointments, secondments and in other decisions is secured against arbitrary decisions and the exercise of undue influence. This is to be achieved by enhancing the system of checks and balances strengthening the requirements for appointments in key court leadership positions, and by establishing clear and objective, non-discretionary rules.

- First, in terms of court administration, this includes measures to strengthen the role and powers of the **National Judicial Council**, led and elected by judges themselves, to counterbalance the powers of the President of the National Office for the Judiciary, with respect to discretionary decisions on individual cases as well as to the regulations for the judicial system as a whole. In particular, Hungary commits to require the consent of the National Judicial Council, through a motivated *binding* opinion, on the suitability of candidates for the posts of President and Vice-President of the National Office for the Judiciary, based on suitability criteria; on decisions on the annulment of any appointment procedures for judicial and court executive positions; on the transfer of judges; and on any removal of judges from the pool of judges that hear special, including administrative, cases. The National Judicial Council is also expected to give a motivated *binding* opinion on key regulations for the judicial system such as the points system for judicial posts, the conditions for the award of bonuses, the training of judges, the national workload (including the underlying data), and the number of judicial posts, where currently changes can occur without the consent of the representatives of the judges themselves. The National Judicial Council itself is expected to be further strengthened in exercising its duties by allowing judges-members of the National Judicial Council the possibility to be re-elected for the next term of office, and by providing the Council with legal capacity, autonomy in disbursement of its budget, right to access to all relevant documents, and the right to seize the competent court and the Constitutional Court to defend its prerogatives. Non-discretionary rules on designation of ad interim court presidents and a prohibition for the reintegration of judges to a higher court instance following their secondment are also to be introduced, further reducing the scope for exercising undue influence.
- Another reform is expected to strengthen the judicial independence of the **Supreme Court (Kúria)** and limit risks of political influence over the top court, notably by amending the rules on the election of the *Kúria* president, who should have at least five years' experience as a

judge and should not have the possibility to be re-elected. The National Judicial Council is also expected to give its consent on this matter through a motivated *binding* opinion on the suitability of candidates for President and Vice-President of the *Kúria*. The reform is also expected to limit undue influences by removing the possibility for members of the Constitutional Court – who are appointed by the Parliament – to be appointed as judges to the *Kúria* outside of the normal application procedure, improving the case allocation scheme and enhancing oversight over it, and ensuring a set of stronger powers for the judicial council of the *Kúria* itself and, in cases where the *Kúria* president acts as an appointing authority, for the National Judicial Council.

- Further reforms are expected to prevent the Supreme Court from reviewing **preliminary rulings to the Court of Justice of the European Union (CJEU)** by Hungarian judges, in line with a CJEU ruling.
- In order to limit any possible undue influence in the judicial review of decisions of public authorities, Hungary is also expected to remove the possibility, introduced in 2019 and used on a number of occasions since then, for public authorities to challenge final judicial decisions before the politically-appointed **Constitutional Court**.

The plan includes reforms to improve the quality and transparency of the decision-making process through effective social dialogue, engagement with other stakeholders and regular impact assessments (2019 CSR 4, 2020 CSR 4 and 2022 CSR 4). Related measures include targeted legislative changes to establish minimum public consultation periods on draft legislation before they are finalised or submitted to the Parliament and to keep the share of legislative acts adopted without public consultation to the necessary minimum, with systematic justification for the use of exceptional procedures. The plan includes binding targets in this regard. Impact assessments are expected to be systematically prepared and made available publicly in relation to all draft legislation, and a new impact assessment methodology will be developed with the involvement of international institutions and stakeholders. The explicit involvement of social partners and stakeholders in decision-making is a prerequisite condition of several measures in the plan, with specific milestones envisaged to that effect. The public oversight of the plan itself is also envisaged: this will be the main task of a dedicated monitoring committee, with at least half of the members coming from civil society organisations that are truly independent from public authorities.

The plan includes several measures in the field of education, contributing to addressing key challenges (2019 CSR 2, 2020 CSR 2 and 2022 CSR 3). Low education outcomes are a significant bottleneck to social inclusion and the long-term growth prospects of the Hungarian economy. The plan features reforms to improve the attractiveness of the teaching profession, to decrease segregation in schools as well as to ensure access to quality school education, in particular by providing pupils and teachers with the devices necessary to participate in modern digital education, and by developing the digital skills of pupils and teachers. Measures tackling the low attractiveness of the teaching profession include a gradual increase of wages of teachers in the public education system, to reach at least 80% of the average wage of tertiary graduates by 2025 and maintaining such level until 2030, with special emphasis on teachers working in disadvantaged

areas and in schools with high share of disadvantaged students and on entry-level teachers. A number of 579 000 digital notebooks are envisaged to be delivered in public education institutions for the use of students in grades 5 and 9, out of which at least 55 000 for teachers and at least 10 000 for schools. At least 3 100 schools are expected to be equipped with interactive display tools and devices to develop student creativity and problem-solving capacity, while priority will be given to schools with high share of disadvantaged students. The plan also supports the integration of low-performing lower secondary classes into larger schools in neighbouring settlements, adjusts the financial support mechanism for schools to incentivise efforts to reduce school segregation, enhances the quality of specialised education services for students with special needs, improves managerial skills of school heads and their deputies as well as provides qualifications on additional disciplines for teachers and pedagogical skills of education staff. The component supporting the development of a highly qualified and competitive workforce includes investments related to modernising the physical and digital infrastructure of vocational education and training institutions, to developing digital curricula and for the energy efficiency refurbishment of buildings. Measures in another component aim at providing inclusive pedagogical developments in at least 100 public education institutions in some of the most disadvantaged municipalities selected under the Catching up Settlements Programme. This includes the provision of extended school programmes and scholarships for secondary education in education tracks that lead to ‘matura’ diploma, which is also expected to contribute to the prevention and reduction of segregation.

A few challenges identified in the CSRs are considered as not being adequately addressed.

The challenges associated with the labour market (2022 CSR 4) are only partially tackled, as the plan lacks measures to extend the duration of unemployment benefits. This is also the case for challenges associated to the adequacy of social assistance (2022 CSR 3), as the plan includes targeted interventions focusing on the inhabitants of the most disadvantaged settlements, which are only a segment of the population at risk of poverty or exclusion. The plan also does not include measures in relation to competition in services and the systematic application of competition scrutiny in business transactions (2022 CSR 5); and in relation to the digitalisation of businesses (2022 CSR 5), which is however well covered under the EU cohesion policy.

Taking into consideration the reforms and investments envisaged by Hungary, its recovery and resilience plan is expected to contribute to effectively addressing all or a significant subset of challenges identified in the country-specific recommendations, or challenges in other relevant documents officially adopted by the Commission under the European Semester, and the recovery and resilience plan represents an adequate response to the economic and social situation of Hungary. This would warrant a rating of A under the assessment criterion 2.2 in Annex V to the RRF Regulation.

4.3. Growth potential, job creation, economic, institutional and social resilience, European Pillar of Social Rights, mitigating the impact of the crisis, and social territorial cohesion and convergence

Fostering economic growth and jobs

The plan aims to support Hungary's recovery and improve long-term growth prospects through a range of investments and reforms. The main objectives of the plan are to improve Hungary's growth potential, job creation, and economic, social and institutional resilience that should ultimately reduce the country's vulnerability to shocks. The measures in the plan are expected to support human capital accumulation and labour market participation, the roll-out of green and digital technologies and productivity growth.

The availability of skilled labour is a key long-term challenge of Hungary. Bottlenecks in human capital development arise due to weak education outcomes, including relatively high early school leaving (see also Box 2) and low digital skills. Hungary also suffers from low attractiveness of the teaching profession and the plan seeks to address teacher shortages by increasing the average salary of teachers in the public education system from 59% (in 2022) to at least 80% of the average wage of tertiary graduates, and by offering retraining opportunities for teachers. To support pupils of disadvantaged socio-economic background (including Roma), the plan promotes inclusive education practices, creates financial incentives for schools to limit segregation, and envisages integrating small lower-secondary classes into larger schools in neighbouring settlements to improve pupils' access to quality mainstream education. The plan is expected to boost digital skills by investing in digital education solutions through the distribution of personal digital devices for teachers and pupils, and the provision of training for teachers. The improvement of vocational education and training schools, including the development of digital education solutions, and the planned stronger involvement of higher education institutions in adult training will also help raise skills levels overall.

Health outcomes are also essential for human capital and societal development. Hungary suffers from below average performances: a Hungarian newborn in 2019 could expect 61.7 healthy life years compared to the EU average of 64.6 years. Thus, despite a gradual improvement in this indicator, an average Hungarian could still expect to encounter health problems three years before regular retirement age. The comprehensive reform of the healthcare sector is expected to improve the overall health status of the population and thus increase the availability of workers.

The plan also includes measures to increase labour market participation of specific groups. In particular, Hungary plans to increase the capacity of early childcare facilities, which can be expected to raise the labour market participation of parents, and notably women with young children. Furthermore, actions envisaged in the most disadvantaged settlements of the country seek to help the long-term unemployed population with mentoring, targeted skills development, and employment opportunities.

Capital accumulation is supported by significant investment to support the green and digital transitions. These investments are expected to improve the infrastructure necessary for businesses (e.g. the rail network) and to help the economy transition towards new technologies. Reforms and

investments in waste management can also be expected to help develop the circular economy, including through the adoption of new technologies to treat plastic waste.

Productivity growth may benefit from efforts to stimulate innovation. Investment in skills, in higher education and support for R&D networks can be expected to help Hungary improve upon its emerging innovator status, which is essential for sustainable growth in the long run. The plan foresees the creation of new national laboratories which are expected to foster cooperation and knowledge transfer among research entities, higher education institutions and businesses. Some of the research topics to be funded can be expected to support the development of innovative enterprises, for example in the automotive, pharmaceutical and information sectors. The plan is also expected to support digitalisation through the promotion of digital solutions in education and the development of digital services, in particular in healthcare. Finally, efforts to increase competition in public procurement through facilitating, among others, the participation of micro-, small and medium-sized enterprises are expected to enhance competition and productivity growth.

The plan is expected to help maintain public investment at a high level. Public investment remained resilient during the 2020 recession and reached 6.3% of GDP in 2021, the highest level in the EU. This reflected the absorption of significant EU funding available for Hungary, as well as a high level of nationally financed investment. This development is commensurate with the need for greater capital accumulation, including public infrastructure, in a catching-up economy. In the medium term, Hungary faces various economic and social challenges, including the green and digital transformations, which continue to require significant public investment (see sections 2.2 and 2.3). Funding from the RRF is expected to contribute to maintaining a high rate of public investment in a period where the government faces significantly higher financing costs. Investments funded by the Facility are expected to amount to an annual average of 0.7% of GDP (at 2021 prices) over 2021-2026. The plan does not include a projection for public investment, but the macroeconomic scenario of the 2022 Convergence Programme, which takes into account the impact of the plan, foresees public investment at 5.8% on average in 2022-2026.

The plan is expected to contribute positively to economic growth. Hungary has not provided a baseline scenario for public investment without the plan. Simulations with the Commission's QUEST model indicate that the investments financed by the Facility could raise the level of Hungary's GDP by 1.0% to 1.4% by 2025 (see box 2 for further detail). Hungary has prepared a detailed quantitative impact assessment using an input-output model. While this model accounts for supplier linkages, it does not take into account second-round effects (e.g. on prices) and international spillovers. Due to these differences, the calculations cannot be directly compared to the Commission simulations.

Box 2: Stylised NextGenerationEU (NGEU) impact simulations with QUEST – Hungary

Model simulations conducted by the Commission using the QUEST model show that the economic impact of NGEU in Hungary could lead to an increase of GDP of between 1.0% and 1.4%.^[1] After 20 years, GDP could be 0.4% higher compared to a no-NGEU baseline. Spillovers account for a significant part of the effect. According to these simulations, this would translate into around 22 thousand additional jobs. Cross border (GDP) spillovers account for 0.4 pps in 2026, showing the value added of synchronised expenditure across Member States (line 2). Even assuming with a lower productivity of NGEU funds, it would still lead to a significant impact (line 3).^[2]

Table 7. QUEST simulation results (%-deviation of real GDP level from non-NGEU case)

| Scenario | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2040 |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Baseline | 0.0 | 0.5 | 1.0 | 1.3 | 1.4 | 1.3 | 1.0 | 0.6 | 0.6 | 0.6 | 0.4 |
| <i>of which spillover</i> | -0.3 | 0.0 | 0.2 | 0.2 | 0.4 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 |
| Low productivity | 0.0 | 0.2 | 0.7 | 1.0 | 1.0 | 0.9 | 0.5 | 0.2 | 0.2 | 0.2 | 0.2 |

This stylised scenario does not include the possible positive impact of structural reforms, which can be substantial. A model-based benchmarking exercise shows that undertaking structural reforms that would result in halving the gap vis-à-vis best performers in terms of indicators of structural reforms could raise Hungary's GDP by 14% in 20 years' time, compared to 11% for the EU average.^[3]

Due to the differences in the assumptions and methodology, the results of this stylised assessment cannot be directly compared to the numbers reported in chapter 4 of Hungary's RRP.

Strengthening social cohesion

The plan includes measures in several areas identified as pressing challenges in the EU Social Scoreboard. The Social Scoreboard flags as most critical areas for Hungary the low share of young children enrolled in formal childcare and the low level of digital skills in the population (see also Box 3), and Hungary's plan envisages actions related to these areas. The low share of children under age 3 enrolled in formal childcare is also a key factor behind the gender employment gap in Hungary. The development of early childcare facilities – which is also supported by cohesion policy funds in addition to the RRF – may thus be expected to contribute to raising the employment rate of women. Digital skills development is also at the core of several interventions of the plan. In 2019, 51% of individuals lacked basic digital skills in Hungary, compared to 46% in the EU. The plan foresees the distribution of ICT equipment to teachers and pupils on various education levels, as well as efforts to develop digital education content in vocational education and training schools and in adult learning and promote digital education methods.

The plan is expected to improve the access of disadvantaged groups to quality public services. Access to quality mainstream education should be improved through measures such as a comparatively higher salary increase for teachers working in disadvantaged areas or with

disadvantaged pupils, as well as a financial incentive for schools to prevent segregation and the integration of small lower secondary classes (from schools typically located in rural/disadvantaged areas) into larger neighbouring schools. Measures to distribute ICT equipment to pupils will also benefit low-income households to a greater extent because they are less likely to own such devices. In the area of healthcare, the practice of gratuity payments reduces the access of low-income groups to quality care. The plan includes a measure to eradicate such gratuity payments as part of a wide-ranging reform package according to which the receipt of such payments is criminalised, while doctors' salaries are being substantially increased to reduce the incentives to request gratuity payments from patients (no RRF funding is envisaged for the financing of the doctors' salaries). This may be expected to lead to establishing more efficient and equitable pathways to diagnosis and treatment for all patients.

The scaling up of an integrated development programme is expected to benefit the 300 most disadvantaged settlements. Hungary has launched a long-term development initiative in 2019 (the Catching-up Settlements programme) focusing on people living in the most disadvantaged settlements by offering wide-ranging support adapted to local needs. Such support includes improving the housing situation, developing solar power plants benefitting the communities, education and employment through non-profit organisations with complementary interventions envisaged from the cohesion policy funds (social work, healthcare, early childhood education and care and community building). Currently 118 settlements are involved in the programme. The scaling up of this programme to 300 settlements (amounting to about 3% of Hungary's population) is supported by targeted measures in the RRP, with complementary interventions envisaged from the EU cohesion policy funding.

The plan contains some measures in the area of gender equality and equal opportunities. These measures are mostly related to Component 1 (Demography and public education) through the increase of places in early childcare facilities to enhance parents' participation in the labour market and to contribute to their work-life balance; and Component 3 (Catching-up settlements) with an integrated approach to social integration, including Roma. Measures in Component 2 (Highly qualified, competitive workforce) are also expected to improve accessibility of digital learning materials for disadvantaged learners. Component 5 (Sustainable green transport) is also expected to improve accessibility for persons with disabilities at some railway stations and to new buses. Some measures of healthcare reform (Component 8 – Healthcare) are expected to contribute to the implementation of the Strategy for the Rights of Persons with Disabilities. Looking ahead at the design and delivery of most measures, it will be important to keep a specific attention to their effects in terms of gender equality and equal opportunities.

Reducing vulnerability and increasing resilience

Green investments are expected to strengthen economic and environmental resilience. Hungary's reliance on energy imports and the economy's exposure to international energy price fluctuations are major sources of vulnerabilities. The plan is expected to contribute to increasing the share of renewable energy production through the promotion of solar energy and wind power, to the strengthening of the electricity network to accommodate renewable energy sources and to the facilitation of grid connections. The plan is also expected to contribute to higher energy

efficiency levels, mainly through the renovation of public buildings. Furthermore, investment in sustainable public transport may not only ease traffic congestion and improve air quality, but it may also facilitate greater labour mobility.

Investment in digitalisation, education and skills, and the reform of the healthcare system will contribute to social resilience. Digital education solutions and the modernisation of education and adult training can contribute to upskilling, reskilling and a greater adaptability of workers. Health promotion campaigns, more comprehensive primary care services through general practitioners' communities, a reorganised and modernised hospital system and clear treatment pathways for patients can improve health outcomes and increase efficiency in the healthcare system, while strengthening its resilience in case of health crises. A remote health monitoring system for elderly people is expected to contribute to the de-institutionalisation of long-term care. The digitalisation of healthcare is expected to make the operation of health institutions more efficient and secure. The plan can be also expected to increase social resilience indirectly, through investing in R&D on major societal challenges in areas such as healthcare and the environment.

Cohesion and convergence

The RRF complements other EU funding aiming to foster territorial cohesion and convergence in Hungary. Hungary is a major beneficiary of cohesion policy funds, which are primarily targeted at its less developed regions. Due to the greater flexibility of the RRF in terms of incorporating reforms and geographical coverage of investment measures, the plan can serve as a strategic complement to other EU interventions in Hungary. In some cases, such as the development of public transport, relatively larger interventions are planned in more developed areas where some of the challenges of greening the economy (such as traffic congestion and the consequent air pollution) are often concentrated.

Investment in digital public education and healthcare can be expected to reduce inequalities in the access to quality public services. Rural, disadvantaged areas are more likely to lack adequate education and health infrastructure, as well as face shortages in the number of teachers and doctors. Therefore, they stand to gain the most from measures such as the distribution of digital equipment in schools and the more efficient organisation and better endowment of healthcare services. Moreover, the integrated development programme for the most disadvantaged settlements proposes customised solutions to local needs to break out of poverty and deprivation.

Box 3: Employment and social challenges in light of the Social Scoreboard accompanying the European Pillar of Social Rights

| Social Scoreboard for Hungary | | | | | |
|--|--|----------|--------------------|---------------------|------------|
| Equal opportunities and access to the labour market | Early leavers from education and training (% of population aged 18-24) (2021) | | 12.0 | | |
| | Individuals' level of digital skills (% of population 16-74) (2021) | | 49.0 | | |
| | Youth NEET (% of total population aged 15-29) (2021) | | 11.7 | | |
| | Gender employment gap (percentage points) (2021) | | 10.6 | | |
| | Income quintile ratio (S80/S20) (ratio) (2020) | | 4.2 | | |
| Dynamic labour markets and fair working conditions | Employment rate (% population aged 20-64) (2021) | | 78.8 | | |
| | Unemployment rate (% population aged 15-74) (2021) | | 4.1 | | |
| | Long term unemployment (% population aged 15-74) (2021) | | 1.3 | | |
| | GDHI per capita growth (2008-100) (2020) | | 132.8 | | |
| | At risk of poverty or social exclusion (in %) (2020) | | 19.4 | | |
| Social protection and inclusion | At risk of poverty or social exclusion for children (in %) (2020) | | 21.7 | | |
| | Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP) (2020) | | 44.1 | | |
| | Disability employment gap (ratio) (2020) | | 31.2 | | |
| | Housing cost overburden (% of population) (2020) | | 4.9 | | |
| | Children aged less than 3 years in formal childcare (% of under 3-years-olds) (2020) | | 10.5 | | |
| | Self-reported unmet need for medical care (% of population 16+) (2020) | | 0.7 | | |
| | Critical situation | To watch | Weak but improving | Good but to monitor | On average |
| Update of 29 April 2022. Member States are classified on the Social Scoreboard according to a statistical methodology agreed with the EMCO and SPC Committees. It looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories. For methodological details, please consult the Joint Employment Report 2022. Due to changes in the definition of the individuals' level of digital skills in 2021, exceptionally only levels are used in the assessment of this indicator; NEET: neither in employment nor in education and training; GDHI: gross disposable household income. | | | | | |
| Source: European Commission, Eurostat | | | | | |

Hungary performs relatively well on some indicators of the Social Scoreboard supporting the European Pillar of Social Rights, but significant challenges remain. The employment rate is above the EU average and unemployment is well below. The growth in real per capita adjusted disposable income of households was better than the EU average, with a 33 pps increase since 2008. The gender pay gap remains wide compared with the rest of the EU and has increased sharply above the EU average since 2019. The youth unemployment rate has slightly increased from 12.8% in 2020 to 13.5% in 2021, being close to the EU average of 13.0% (2021). (The share of young people who are neither in employment, nor in education and training (NEET) is relatively low (11.7% in 2021) except for women, who are affected nearly twice as often as men.

Labour market outcomes are weak also for vulnerable groups, including Roma and persons with disabilities.

The share of people at risk of poverty or social exclusion decreased, but the depth of poverty has significantly worsened (from 16.7% in 2017 to 27.9%

in 2020), pointing to a limited redistributive capacity of social transfers. The high rate of early school leaving, especially among the Roma population, the low level of individuals' digital skill and adult education participation rates pose important challenges. Provision of early childhood education and care is among the lowest in the EU, with only 16.9% of children under the age of 3 in formal childcare (EU: 35.3% in 2019), which negatively impacts on equal opportunities and work-life balance. More action is needed on the provision of long-term social housing and accompanying inclusion measures. The unemployment rate of low-skilled people is 2.5 and 6 times higher than that of the medium- or high-skilled respectively, which points to the need for active labour market policies to focus more on upskilling and reskilling.

With its Recovery and Resilience Plan, Hungary intends to channel investments in some of the areas where the Social Scoreboard indicates the most pressing challenges for Hungary. To foster equal opportunities and access to the labour market as well as social protection and inclusion, the plan envisages developments targeting the 300 most disadvantaged settlements in order to improve access to social and healthcare services. The adequacy of social assistance in general remains, however, low. Investments are proposed to foster the quality of and access to primary care services. To improve labour market dynamics and working conditions, Hungary plans the preparation of a digital competency framework and the provision of related trainings aiming to improve the basic digital skills of the population. The plan also envisages reforms and investments in higher education, vocational education and training, and innovation as well as investments in the digitalisation of public education.

Steps have been taken to improve the labour market participation of women, in particular by increasing the availability of early childhood education and care (ECEC) facilities. The proportion of children under 3 years

of age in formal childcare increased to 16.9% in 2019 from 13.8% in 2017, which is a step towards the Barcelona target. Hungary has invested significant EU and national funds into extending the provision of childcare by creating new places in creches. It has proposed additional investments in early childhood education and care in its Recovery and Resilience Plan, aiming to improve capacity by around a further 3600 places.

^[1] The simulations are based on Pfeiffer, P., Varga, J. and in 't Veld, J. (2021), "Quantifying Spillovers of Next Generation EU Investment", European Economy Discussion Paper 144. The simulations were updated to reflect new grant allocations and actual annual spending profiles. RRF amounts to roughly 90% of NGEU, which also includes REACT-EU, Horizon, InvestEU, JTF, Rural Development and RescEU.

^[2] Technically, the low productivity scenario considers a significantly reduced output elasticity of public capital.

^[3] Varga, J, in 't Veld J. (2014), "The potential growth impact of structural reforms in the EU: a benchmarking exercise ", European Economy Economic Papers no. 541.

http://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp541_en.pdf.

Taking into consideration all reforms and investments envisaged by Hungary, its recovery and resilience plan is expected to have a high impact on strengthening the growth potential, job creation, and economic, social and institutional resilience of the Member State, on contributing to the implementation of the European Pillar of Social Rights, including through the promotion of policies for children and youth, and on mitigating the economic and social impact of the COVID-19 crisis, thereby enhancing the economic, social and territorial cohesion and convergence within the Union. This would warrant a rating of A under the assessment criterion 2.3 of Annex V to the RRF Regulation.

4.4. The principle of 'do no significant harm'

The Regulation establishing the RRF stipulates that the recovery and resilience plan should ensure that no measure for the implementation of the reforms and investments should lead to significant harm to any of the six environmental objectives within the meaning of Article 17 of the Taxonomy Regulation⁸. In line with the RRF Regulation and the Technical Guidance on the Application of 'do no significant harm' under the RRF Regulation (hereafter 'DNSH Technical Guidance'⁹), Member States provide a 'do no significant harm' (DNSH) assessment, on which basis the Commission assesses whether each measure of the plan complies with the DNSH principle. Hungary has submitted a detailed DNSH assessment of all measures included in the plan.

The evidence provided on the criteria used for the selection and design of measures is sufficient to conclude that no measure in the plan is expected to do significant harm to environmental objectives. Many measures included in the plan contribute substantially to environmental objectives, or have no or an insignificant foreseeable impact on environmental objectives, and are therefore considered DNSH compliant from the outset (e.g. certain measures in education and public administration). Other measures are designed in such a way that they

⁸ The six environmental objectives comprise (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) the circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems.

⁹ COM (2021) C58/01, Technical Guidance on the Application of 'do no significant harm' under the Recovery and Resilience Facility Regulation.

include assurances that DNSH requirements will be respected, being enshrined in the design of measures or, when necessary, also reflected in various milestones and targets.

For measures where it is relevant, the potential harmful environmental and climate impact is addressed through appropriate assurances that the applicable criteria are to be respected.

The water management component, which includes the development of new water networks and systems, requires taking specific precautions. Hungary is expected to ensure full compliance of supported projects with relevant EU legislation, namely the Water Framework, Habitats and Birds Directives and national legislation. Hungary committed to conduct full environmental impact assessments (EIAs) relevant to each of these measures, and to design projects in line with the findings of these assessments. Ensuring compliance with EU environmental law aims in particular to ensure that the good ecological status of the surface and groundwater bodies affected by those investments will be achieved. It also aims to ensure that protected habitats and species are not impacted negatively by the measures and that the conservation objectives of the Natura 2000 sites concerned are complied with. The EIAs for these measures are also expected to take into account projected impacts from climate change based on the best available science (in particular with regard to the increasing frequency and length of low flow periods predicted in the National Adaptation Strategy on the rivers that should feed the canals targeted by the intervention). Should the EIA suggest conditions through which significant harm to both surface and groundwater bodies can be avoided, Hungary is expected to undertake the recommended conditions and measures. Hungary committed in particular that water bodies affected by the investments under the RRP will have reached good status by the end of 2025. In addition, substantial nature-based solutions for water retention are expected to be included in the design of the infrastructure projects included in the water management component. These requirements are included in the relevant milestones for each project.

The measures in the transport sector are expected to be implemented in compliance with the DNSH principle. For that purpose, the contractors of the infrastructure work (railways and relevant installations, including buildings, car parks and roads) are expected to ensure that at least 70% of non-hazardous construction and demolition waste is prepared for re-use/recycling/other material recovery. Building components and materials used in the construction are also expected not to contain asbestos nor substances of very high concern, and the vehicles purchased (buses) are expected to be fully zero-emission powered.

The measures aiming at the transformation towards a circular economy are also expected to be implemented in compliance with the DNSH principle. Specific requirements include that the output of the chemical recycling process of the supported recycling facility is expected to be secondary raw-materials and not fuels, and as such this process does not constitute energy recovery, under the meaning of the Waste Framework Directive. They also include that green hydrogen to be produced as part of the investment and used as part of the chemical recycling process should be produced from renewable energy sources in accordance with applicable EU law. They further include that the plant shall only treat plastic waste that cannot be recycled mechanically. Finally, the requirements include that in case the measure includes activities under

the EU Emission Trading System (ETS), such activities must achieve projected greenhouse gas emissions lower than the relevant benchmarks¹⁰.

Taking into consideration the assessment of all the measures envisaged, no measure for the implementation of reforms and investments projects included in Hungary's recovery and resilience plan is expected to do a significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) No 2020/852 (the principle of 'do no significant harm'). This would warrant a rating of A under the assessment criterion 2.4 of Annex V to the RRF Regulation.

4.5. Green transition

Climate target

Measures supporting climate objectives in Hungary's recovery and resilience plan account for EUR 2.80 billion, which represents 48.1% of the plan's total allocation. This exceeds the minimum climate target of 37% as set out in the RRF Regulation. The highest contribution to climate objectives stems from investments in the rail sector through the modernisation of railway lines, and investments in renewable energy through the development of the electricity network, as well as financial support for the upscaling of residential renewable energy production capacities. Other sizeable green investments concern new zero-emission buses and setting up a new chemical recycling and hydrogen production plant. The plan also includes investments in renovation of public buildings and the construction of energy-efficient new buildings, notably in the education and healthcare sectors.

The tagging is based on a correct application of the methodology for climate tracking as set out in Annex VI to the RRF Regulation, by identifying intervention fields, and corresponding coefficients for the calculation of support to climate change objectives. For broad measures, the climate contribution is computed at sub-measure level to ensure that intervention fields are accurately selected and to avoid any overestimation of the overall contribution of individual measures to the climate objectives. Whenever a selected intervention field includes specific additional conditions, these are substantiated in the description of the respective measure as well as reflected by specific provisions in the milestones and targets to ensure that the characteristics of the measures conform to the conditions set out in Annex VI to the RRF Regulation.

¹⁰ Where the activity supported achieves projected greenhouse gas emissions that are not significantly lower than the relevant benchmarks, an explanation of the reasons why this is not possible shall be provided. Benchmarks established for free allocation for activities falling within the scope of the EU Emissions Trading System, as set out in the Commission Implementing Regulation (EU) 2021/447.

Table 8: Climate contribution and cost per component

| Component | Total cost (EUR million) | Climate contribution (EUR million) | Climate contribution (% of total cost) |
|--|---|---|---|
| 1. Demography and public education | 621 | 46 | 0.8% |
| 2. Highly qualified, competitive workforce | 692 | 70 | 1.2% |
| 3. Catching up settlements | 225 | 30 | 0.5% |
| 4. Water management | 145 | 48 | 0.8% |
| 5. Sustainable green transport | 1 414 | 1 233 | 21.2% |
| 6. Energy - green transition | 1 246 | 1 209 | 20.8% |
| 7. Transition to the circular economy | 109 | 109 | 1.9% |
| 8. Health | 1 306 | 55 | 0.9% |
| 9. Governance and public administration | 66 | - | - |
| Total | 5 824 | 2 800 | 48.1% |

Green transition

The recovery and resilience plan contributes to the green transition, addresses the related challenges and is well aligned with the priorities of the European Green Deal and its 2030 climate target plan, as well as the goal to make the EU climate-neutral by 2050. The selection and design of green measures reflect the main priorities of the NECP, although the plan does not quantify the contribution of the different measures. In line with the NECP, the green components cover the important greenhouse gas emitting sectors of buildings and transport and support the deployment of renewable energy sources capacities.

The plan includes a complete set of reforms with regards to renewable energy production and energy efficiency. In order to promote the green transition, to decrease the dependence on fossil fuels and to increase the security of energy supply at times of the energy crisis provoked by Russia's war of aggression against Ukraine, a comprehensive set of reforms to the regulatory system is envisaged, leading to a full overhaul of Hungary's electricity system:

- A reform aims at encouraging the development of onshore wind energy by removing existing unnecessary obstacles to the development of wind power plants, in particular those relating to the distance between wind turbines and residential or other affected areas, to wind power plant height and capacity. The reform will also simplify permitting procedures for installing wind turbines in specific areas identified as "go-to areas".

- Another reform has the objective of promoting the deployment of renewable energy by improving and shortening the permit granting procedures for renewable energy projects through integrated procedures for environmental and construction permits, shorter deadlines and ‘automatic’ authorisations for small photovoltaic installations. The recently introduced temporary cessation of the possibility for newly built residential PV systems to supply power to the grid is also expected to be removed.
- A third reform contains a comprehensive set of measures that aim at improving transparency, predictability and availability of the grid connection for weather dependent renewable energy investments. This reform is expected to ensure a non-discriminatory approach between power generating technologies and to allow for more connections despite temporary grid capacity limitations by authorising connection requests that are able to fulfil specific balancing requirements. Justified balancing requirements (e.g. storage related to the new capacities to be connected) are allowed to be set as these serve to balance the electricity grid until the necessary developments are carried out by the system operators. The reform also intends to increase transparency of the grid connection procedure with several actions to raise awareness and to foster informed decisions by market players. These reforms are expected to contribute to increasing the total capacity of renewable energy production authorised to be connected to the grid to at least 10 000 MW by 2026.
- A fourth reform should provide for a new accounting system for prosumers who benefit from public financial support for the installation of their solar panel systems as from 1 January 2023. According to this accounting system, prosumers will account separately for the electricity fed into the grid and electricity consumed from the grid. This measure should contribute to an adequate cost sharing of the electricity system.
- Finally, a reform related to energy efficiency is expected to introduce the requirement to achieve at least 30% energy consumption reduction for building renovation schemes when those are financed from EU funds.

The plan also includes significant investments to support the uptake of renewable generation.

It includes investments in small residential solar power systems of about 4-5kW on average on roof structures for self-consumption. The measure should benefit 34 920 households, of which at least 11 600 households should be entitled to replacement of windows, establishment of storage capacity (maximum 14kWh) and installation of electric heating (electric panels or heat pumps, depending on the technical circumstances of the building benefiting from the support) in addition to the installation of solar panel systems. The plan aims to contribute to the achievement of the objectives set out in the NECP by deploying additional renewable energy capacity of 140-175 MW. The measures should contribute to the government’s strategic goal to reach by 2035 at least 200 000 households having roof-mounted solar panels with an average capacity between 4 and 5 kW. The measures are expected to help Hungary to reduce greenhouse gas emissions by around 49 720 tonnes per year (i.e. 0.1% of national emissions). They are also expected to contribute to increasing the installed capacity of residential heat pumps to around 400 MW by 2030.

With a view to integrating the energy production capacities from renewable energy sources into the electricity network in a secure and flexible way, the plan supports the network development and the installation of storage facilities. In accordance with Hungary's energy policy strategy, Hungary intends to increase the share of renewables in its energy mix and to significantly enhance its current domestic solar power plant capacity by 2030. To ensure sufficient network access and necessary grid capacity, Hungary is expected to develop the transmission and distribution network. In order to support the integration of electricity generated by weather-dependent energy sources into the grid, the plan also supports the installation of storage facilities both for market participants as well as for the transmission system operator and distribution system operators. The transmission system operator and the distribution system operators are expected to use their storage facilities for the sole purpose of ensuring a secure and reliable operation of the transmission or distribution system. Their storage facilities should not be used for balancing or congestion management. The plan also supports the installation of smart meters, which is expected to play an important role as an end-to-end tool for the accurate determination of consumer profiles and the optimisation of electricity demand. In the long term, the roll-out of smart meters and flexible tariffs are expected to provide the basis for demand-side responses. The data gathered from smart meters is expected to be used for increasing the accuracy of the network development plan, and for the development of flexible connection and operation options.

The plan is expected to promote clean heating solutions among the most disadvantaged settlements. This is set to be done by supporting the installation of low-capacity solar power plants within or in the proximity of the most disadvantaged municipalities selected under the Catching up Settlements Programme. The net revenue generated by these power plants is expected to be used to support the electricity need for heating purposes of vulnerable families that will be combined with pre-indebtedness solutions (e.g. prepaid hours) to address social and environmental sustainability aspects. This measure is expected to contribute to the creation of additional renewable energy production capacity of 25 000 kWp.

Measures included in the plan contribute to improving energy efficiency through investments in deep renovation of existing buildings or the construction of new more energy efficient buildings. Regarding the measures supporting deep energy efficiency renovation of university higher education institution buildings serving educational purposes or of hospital buildings, the plan includes a commitment that as a result of the renovation at least 30% primary energy savings compared to the ex-ante emissions shall be achieved, on average, across the refurbished infrastructure. This commitment is reflected in the relevant targets. Similarly, the investment in the construction of hospital buildings is linked with a commitment that the primary energy demand of any new buildings is set to be at least 20% lower than the nearly zero-energy building requirement. The support for window replacement and heating modernisation of 11 600 households mentioned above is also expected to contribute to energy efficiency improvements. Hungary is expected to further achieve the reduction of energy consumption and greenhouse gas emissions in buildings, by supporting additional investments in the energy efficiency renovation of the residential building stock as part of programmes financed from the cohesion policy funds.

Measures in the plan are expected to increase the share of environmentally friendly forms of transport and the volume of goods transported on rail. The railway investments around

Budapest have the potential to increase significantly the attractiveness of urban and sub-urban rail journeys to and from the capital, contributing to the national objectives to increase the number of passengers using trains by 80% and to prevent 4 million tonnes of greenhouse gases per year by 2040. Other measures are set to support this modal shift to public transport, such as an improved rail traffic management system and the introduction of a single tariff and passenger information system. The new measures are expected to increase the volumes of goods transported in cleaner transport modes through the removal of a bottleneck in one TEN-T core section. The purchase of 300 electric buses, and the replacement of old rolling stock, is expected to contribute to decreased use of fossil fuels in municipalities throughout the country and support the roll-out of charging stations for alternative fuels public transport. These investments and the reform of the tariff system are expected to create a cleaner, smarter, safer and more efficient transport sector.

The plan also comprises investments in the water management system and accompanying reforms. New and upgraded water management networks and systems are expected to enhance the availability of surface water in areas suffering periods of water scarcity, using water abstracted from the country's rivers. Specific provisions and milestones ensure that these measures include nature-based water retention practices, that the design of projects implements the results and conditions from Environmental Impact Assessments, in compliance with EU environmental law, that relevant water abstraction permits are granted, and that the good ecological status of the surface and groundwater bodies affected by those investments will be achieved. The strengthening of the monitoring system for surface and groundwater abstractions at local and national level is expected to mitigate the risk of excessive and/or illegal water abstractions. The plan also envisages broadening the scope of the existing farmers' associations ('irrigation communities') into 'sustainable water management communities', revising the mandate of these associations and providing them with trainings to turn their activities towards sustainable water management practices.

The plan includes measures for the transition to a circular economy by using reprocessed materials as raw materials, which are expected to contribute to the green transition. The strengthening of a smart, innovative and sustainable waste management industry and secondary raw materials market is also expected to contribute to climate objectives and support national pollution prevention measures by contributing to the reduction of landfilling rates.

Taking into consideration the assessment of all the measures envisaged, the recovery and resilience plan is expected, to a large extent, to make a significant contribution to the green transition or to address the challenges resulting from it and ensures that at least 37% of its total allocation contribute to the climate target. This would warrant a rating of A under criterion 2.5 of Annex V to the RRF Regulation.

4.6. Digital transition

Digital target

Based on the methodology for digital tagging set out in Annex VII to the Regulation, measures contributing to the digital transition account for 29.8% of the plan's total allocation. This exceeds the required minimum of 20%. Seven of the nine components of the plan contribute to the digital target. Component 1 (Demography and public education) and component 8 (Health) represent the largest shares of total digital investments. Other measures such as digital skills and the digitalisation of railways, of the electricity network and of the public administration also contribute largely to the digital transition of Hungary.

Table 9. Digital contribution of the components of the Hungarian recovery and resilience plan.

| Component | Total cost (EUR million) | Digital contribution (EUR million) | Digital contribution (% of total cost) |
|--|--------------------------------|---|---|
| 1. Demography and public education | 621 | 391 | 6.7% |
| 2. Highly qualified, competitive workforce | 692 | 256 | 4.4% |
| 3. Catching up settlements | 225 | - | - |
| 4. Water management | 145 | 26 | 0.4% |
| 5. Sustainable green transport | 1 414 | 212 | 3.6% |
| 6. Energy - green transition | 1 246 | 310 | 5.3% |
| 7. Transition to the circular economy | 109 | - | - |
| 8. Health | 1 306 | 480 | 8.2% |
| 9. Governance and public administration | 66 | 62 | 1.1% |
| Total | 5 824 | 1 737 | 29.8% |

Digital transition

A vast range of reforms and investments put forward in the plan contribute to the digital transformation of the economy and society. As described in section 2.3, Hungary's main digital challenges include the need to improve the level of digital skills, digitalisation of education and healthcare and the need to promote digital-related R&D. The plan is expected to respond to these challenges, in line with the EU digital strategy and the National Digitalisation Strategy.

The plan aims to develop digital skills, which are crucial for the digital transformation of the economy and society. Measures in the plan aim at enlarging access to digital education for students and teachers and at integrating digital education solutions in everyday educational practice. In particular, the plan supports digital education by providing IT equipment to pupils and teachers and offering training to teachers on how to use digital equipment. Providing laptops to pupils will also benefit disadvantaged families, contributing to equal access to quality education and ensure their inclusion in the changing society as a result of digitalisation. The implementation of the measures will help students and teachers to acquire digital skills and competences for the labour market, tertiary education and distance learning. In line with the proposals set out in the EU Digital Education Action Plan, the plan supports the development of digital learning content for primary and vocational training and the development of digital skills of students in higher education. Overall, the plan's measures are expected to contribute to the improvement of digital skills of people in education and raise the quality of the educational system.

The plan also includes investments in the digitalisation of public services, notably in the health sector. The healthcare component contains several measures aiming at reforming and digitalising this sector. The measure related to digitalisation of healthcare covers a wide range of initiatives such as establishment of a central remote diagnostics centre, introduction of an artificial intelligence-based system for the medical emergency service and development of mobile health apps. Another measure relates to setting-up a remote patient monitoring system for the elderly. By 2030, almost a quarter of the Hungarian population will be aged over 65 years and around 7% will be over 80 years, which will increase the pressure on the social security system, in particular residential homes for the elderly. The COVID-19 outbreak created an urgent need to enlarge assistance to elderly people. ICT tools offer an opportunity to perform a significant part of monitoring and care tasks remotely. The measure in the plan aims to enrol 1.5 million elderly people in the programme by the end of 2025. Overall, investments in digital health are expected to yield quality and efficiency improvements in the healthcare sector.

The modernisation of the railway network also relies on successful digitalisation. The railway infrastructure investments in the plan include the deployment of a central traffic management system on TEN-T railway lines and on upgraded sub-urban lines around the capital, as well as the introduction of a national single tariff, ticketing and passenger information system for bus and rail. This is expected to help ensure interoperability for railway developments on TEN-T network elements, improve safety, and enable a more efficient monitoring and control of rail traffic. The digitalisation of the rail network is also expected to improve the services provided to passengers at stations and stops.

The digital transformation of the energy sector is a central aspect of several measures, such as investments in the development of smart transmission and distribution grids and the roll-out of smart meters. Smart grid development based on innovative technical solutions is necessary to increase the ability of the power grid to integrate additional capacities from weather dependant renewable energy sources into the electricity system. The analysis of data through digital technologies will improve the forecasting and balancing of supply and demand in the electricity system and will facilitate a better regulation of energy production. This creates the necessary conditions for a better integration of weather-dependent renewable energy production in the

electricity system. Smart meters as end-to-end tools are expected to determine consumer profiles and to contribute to the optimisation of electricity demand. Their data collection and communication functions will allow their use also in other areas of application. The system operators are expected to create the necessary IT infrastructure to be able to use data gathered from smart meters. Smart meters with flexible tariffs may provide the basis for demand-side responses in the long term, which is expected to help to build flexibility into the electricity system in the long term.

The digital transformation of water resources management is also envisaged, through the provision of measurements from quantitative real-time data to the end users, leading to a more resource-efficient system.

The plan also includes measures to improve government ICT solutions and services, which offer the opportunity to modernise and improve the public administration. The introduction of a new asset management software will integrate the IT equipment management processes of at least 3 000 public institutions. IT solutions will also facilitate easier access to public data and the development of the automated decision-making system is expected to simplify certain administrative processes that will also benefit citizens. Upgrading the cooperation system of the prosecution service is not just an IT development but part of a more ambitious attempt to foster internal cooperation. The plan also includes measures on the digital transformation of tax compliance procedures, which makes tax reporting of companies easier, simpler and faster.

Taking into consideration the assessment of all the measures envisaged, the recovery and resilience plan is expected, to a large extent, to make a significant contribution to the digital transition or to address the challenges resulting from it and ensures that at least 20% of its total allocation contribute to the digital target. This would warrant a rating of A under criterion 2.6 of Annex V to the RRF Regulation.

4.7. Lasting impact of the plan

The recovery and resilience plan includes a wide range of measures aimed at addressing challenges identified in the context of the European Semester. The measures are expected to support the green and digital transitions and strengthen the growth potential, job creation and economic and social resilience and cohesion of Hungary. The proposed initiatives and investments are expected to have a lasting, positive impact on Hungary's economy and society. The lasting impact is expected to result especially from policy areas where wide-ranging reforms are being implemented, as specified in Section 4.3.

Structural change in administration and institutions

The plan aims to achieve structural changes and efficiency gains in the healthcare sector and in public administration. The far-reaching reform agenda for the healthcare sector aims, among other things, to eradicate informal gratuity payments, which hamper the access of the low-income population to quality care and creates inefficiencies in patient treatment pathways. The successful elimination of gratuity payments can also be expected to contribute to reducing low-level

corruption. Without the distorting effect of these payments, the treatments of patients can be planned in a more transparent and efficient way. Healthcare reforms are supported by investments in e-health. This combination of reform and investment is expected to pave the way for efficiency gains through a greater emphasis on prevention and primary care and a more rational hospital network structure. If successfully implemented, these measures may thus be expected to improve the financial sustainability of the public healthcare sector, in addition to delivering better health outcomes. The education outcomes are also expected to improve, and the large impact of socio-economic background on education outcomes is expected to decrease, as a result of the various reforms and investments in education, including measures on increasing the attractiveness of the teaching profession, training teachers, providing laptops to pupils and integration of small lower secondary classes into larger schools. Finally, the quality of public administration is expected to improve through the effective implementation of proposed measures to fight corruption, increase competition in public procurement, strengthen judicial independence, conduct expenditure reviews which aim to identify potential efficiency gains in priority areas of public spending, and through the digitalisation of certain public services. A more systematic and effective involvement of social partners in decision-making is also expected to contribute to reducing policy errors and increasing the social acceptance of legislative changes.

Structural change in policies

The plan includes measures that increase the emphasis on long-term sustainability, digitalisation and inclusiveness. As regards sustainability, the plan's measures aim to boost renewable electricity generation by easing regulatory restrictions (e.g. on wind), improve the monitoring of water resources and raise awareness to water conservation in agriculture. Another measure aims to improve the medium and long-term fiscal sustainability and adequacy of the pension system. The plan contains several initiatives to digitalise public services including healthcare, and also aim to support the accumulation of digital skills in all levels of education. Social inclusion can be expected to be supported by the effective implementation of a new regulation against segregation in school education, the scaling up of a development programme for the most disadvantaged settlements, and a more efficient and equitable provision of healthcare services once the reform agenda is accomplished.

Lasting impact

The outlined structural changes to institutions and policies tackle certain root causes behind Hungary's challenges and are thus expected to achieve a lasting positive impact. In its plan, Hungary provided estimates for the long-run economic impact of the plan on a 10-year horizon. While these projections point to a lasting positive effect of the plan, a stronger justification for these effects could have helped to further underpin the analysis. A qualitative assessment of the main implementation risks and challenges was also provided. Hungary carried out a public consultation of the draft plan back in 2021. Further consultation and the continuous involvement of relevant stakeholders, including social partners, will be crucial in the implementation phase to ensure ownership of the plan.

Taking into consideration all reforms and investments envisaged by Hungary in its recovery and resilience plan, their implementation is expected, to a moderate extent to bring about a structural change in the administration or in relevant institutions and/or in relevant policies and to have a lasting impact. This would warrant a rating of A under criterion 2.7 of Annex V to the RRF Regulation.

4.8. Milestones, targets, monitoring and implementation

Adequacy of the structure tasked with the implementation of the plan, monitoring of progress and reporting

The central coordinating body for Hungary's recovery and resilience plan (National Authority) has clearly assigned responsibilities. The division of tasks is clear, and the roles are adequately separated. The arrangements described are expected to constitute an adequate structure for implementing the plan, monitoring progress and reporting. The plan identified the National Authority (the Office of the Deputy State Secretary of the ministry responsible for the implementation of Union support, also in charge of the implementation of the RRP) as the central coordinating body for Hungary's recovery and resilience plan and its implementation. The National Authority is responsible for the overall coordination of the implementation of the plan and for monitoring progress on milestones and targets. It also coordinates the reporting on milestones and targets, relevant indicators, but also the provision of data, such as on final recipients. It is tasked, among other things, with ensuring compliance with Union and national law, monitoring the full and timely fulfilment of the strategic and operational objectives of the recovery and resilience plan through milestones and targets, as well as ensuring that final recipients implement their projects in compliance with the respective conditions for the use of funding. The National Authority is responsible for preparation and submission of payment requests under the RRP. It is also responsible for signing the accompanying management declarations based on information collected from and reported to it by the responsible public bodies. It will draw up the necessary reports to the Commission. The National Authority is also responsible for establishing an effective internal management and control system to prevent and detect irregularities and take appropriate corrective measures, ensuring the evaluation of the results of the plan, taking effective and proportionate measures to combat fraud and corruption, taking into account the risks identified; and ensuring the prevention of double funding; providing methodological support and guidance to implementing bodies and supervising their work; developing templates and standard terms and conditions for the implementation of the measures and grant agreements with final recipients; operating the monitoring system; monitoring the progress of implementation of the different measures; ensuring the reliability, veracity and accuracy of data in the monitoring system; and carrying out management verifications (desk-based and on-the-spot).

The intended monitoring and reporting mechanisms described in the plan appear appropriate. The main coordination and reporting mechanisms between the different bodies are set out in general terms and they rely to a large extent on the functionalities and data provided in the monitoring information system. This system is based on the well-established IT-system used

by Hungary for the purposes of monitoring the implementation of cohesion policy funding and will be adapted for the requirements of the RRP. The functionality and operation of the system as well as the procedures to ensure the reliability, veracity and accuracy of the data introduced entered into the IT system will be crucial to ensure the satisfactory fulfilment of milestones and targets. In addition, the plan includes a milestone to confirm the reliability and functioning of the adapted monitoring system, to be met before the first payment request. Furthermore, a monitoring committee consisting of relevant stakeholders and social partners will be established to monitor the effective implementation of the plan.

Progress towards the satisfactory fulfilment of milestones and targets will be monitored through regularly updated data in a well-functioning monitoring information system.

Hungary envisages putting in place specific controlling arrangements to closely follow progress of the measures and ensure that their implementation remains on track, so that the risk of delays can be identified early on. Adequate arrangements and multi-layer control mechanisms are put in place to ensure the reliability and veracity of data in the monitoring information system (including through in-built consistency checks in the monitoring system, established interfaces with official databases, ex-ante and ex-post checks and management verifications on data quality). The verification mechanisms, data collection and related responsibilities described by Hungary appear sufficiently robust to adequately justify payment requests once the milestones and targets are met.

Milestones and targets

The plan includes 167 milestones and 103 targets distributed across the implementation period. The 54 reforms and 31 investments included in the nine components of the RRP are supported by an overall number of 270 milestones and targets spread throughout the implementation period. The distribution of milestones and targets features a high concentration at the beginning and the end of the implementation period of the plan. This entails some risks to which the Hungarian authorities need to pay attention.

The milestones and targets in the plan constitute an appropriate system for monitoring the plan's implementation. The monitoring indicators are in general sufficiently clear and comprehensive to ensure that their completion can be traced and verified. The milestones and targets chosen represent key steps of the measures and concrete achievements directly linked to the implementation of the measures and under the control of the Hungarian authorities. The milestones and targets are considered relevant for the implementation of the plan. They reflect adequately the overall level of ambition of the plan and appear realistic. They are considered well designed, with relevant, acceptable and robust indicators ensuring proper monitoring during implementation.

Overall organisational arrangements

The plan sets out the administrative organisation for the implementation of the measures contained in it. It clearly identifies the institutional actors that are responsible for implementing the individual reforms and investments. A relevant line ministry is designated to closely monitor and coordinate the implementation of each of the components. Where more line ministries are responsible for the implementation of measures in a component, one line ministry is

identified as the one responsible for the overall coordination and implementation of the whole component. Some of the measures may also receive expert support from the Technical Support Instrument.

The National Authority is expected to involve implementing bodies in the implementation of certain measures. This is the case for investment measures implemented through open calls for proposals or where specific expertise is required. Implementing bodies are selected based on their competence, relevant expertise and administrative capacity. Where implementing bodies are involved, the roles and responsibilities of those implementing bodies is expected to be clearly defined in writing and the National Authority will coordinate and supervise their work.

The detailed tasks and responsibilities of the different bodies involved in the coordination, implementation, monitoring, control and audit of the plan are set out in a government decree. The necessary functions of the monitoring system, including ensuring the collection, storage and provision, as well as the reliability, veracity and accuracy of the data required for the implementation of the plan, will need to be fully functional and operational at the latest before the submission of the first payment request to the Commission.

The arrangements proposed by Hungary in its recovery and resilience plan are expected to be adequate to ensure effective monitoring and implementation of the recovery and resilience plan, including the envisaged timetable, milestones and targets, and the related indicators. This would warrant a rating of A under the assessment criterion 2.8 of Annex V to the RRF Regulation.

4.9. Costing

Overall, the costing information and supporting documents presented by Hungary provide a good basis to assess the reasonability and plausibility of cost estimates. Hungary has provided individual cost estimates for all investments and reforms included in the plan for which funding through the Facility is requested. Hungary provided detailed information on costs using the standard template tables. This was supplemented by separate documents including more elaborate descriptions of the methodology, calculations on how the estimates were reached, and supporting documents providing evidence on individual cost items.

The costs have been estimated based on a combination of methodologies. Most of the measures have been estimated based on a bottom-up approach, with the authorities presenting the units that make up the investment and their unit costs being estimated based on market prices or prices of similar units in past investments or on indicative offers. For other measures, a top-down approach is used where the overall cost of the project is based on similar projects from the past, frequently financed from cohesion policy funds, with the necessary adjustments. Cost estimates based on historical data were adjusted in order to ensure comparability with the project proposed to be financed out of the RRF. A frequently used adjustment is the indexation with price and cost increases that took place since the past investments and the expected price changes over the horizon of the plan. For demand-driven schemes, where final recipients have to submit applications for intended projects, ex-ante cost estimations are less precise than in the case of measures where

the type and nature of projects is clearly defined from the beginning. For these types of measures, Hungary has provided a target for the number of beneficiaries and the amount envisaged to be allocated. In the costing of all measures, the amount to be requested from the RRF is net of the own financing required from the final recipients.

Reasonable costs

Hungary has overall provided sufficient information and evidence to allow assessing the reasonability of the estimated costs of the plan. Based on the assessment of individual cost estimates and related supporting documents, the amounts proposed for financing have been deemed appropriate for most of the measures, whilst taking into account the limitations of an ex-ante based assessment of cost estimates. For the majority of measures included in the plan, Hungary provided clear and sufficient information, evidence, budgetary implications and calculations behind cost estimates. The information provided was less clear for a limited number of cases, especially for measures where the projects are not yet completely defined and will depend on applications to be received from final beneficiaries for intended projects. Nevertheless, there is no evidence that would shed doubts on the costing estimates provided.

The reforms and investments included in the plan comply with the eligibility criteria set out in the RRF Regulation. All costs to be supported by the RRF are incurred for reforms and investments (to be) implemented after 1 February 2020 and the agreed milestones and targets are set in such a way that no RRF funding is to be requested after 31 August 2026. Value-added tax (VAT) is not part of the cost estimates. The plan contains some recurrent costs, such as personnel costs and maintenance costs, which are deemed duly justified and acceptable. The plan provides justifications to show that these costs are essential for the success of the reforms and investments to which they correspond and that they do not represent a significant burden on the national budget. Most of these costs are temporary, while the non-temporary ones can be counterbalanced by budgetary savings if the measures they support are successfully implemented. Hungary did not provide an independent validation of the cost estimates. However, as it was not formally required by the RRF Regulation, this does not affect the assessment of the reasonability of the cost estimates.

Against this background, it is deemed that the reasonability of the cost estimates has been established to a medium extent.

Plausible costs

Hungary has overall provided sufficient information and evidence to establish the plausibility of the cost estimates. For most of the measures included in the plan, Hungary has provided reference costs including historical or comparative data for the cost drivers, results of previous investments in Hungary or in other member states, or results of past tenders or indicative offers. For some innovative schemes, studies or reports with cost estimates have been provided. An adjustment factor was often provided to account for the comparability of the projects. In a few cases the indicated prices were found to be relatively high in international comparison. However, against a background of high inflation in the economy, these high prices might also reflect the impact of rising production costs or supply shortages. Moreover, the exact comparability of the

projects to be financed from the RRF with past projects cannot be guaranteed in all instances. This is the case especially for complex infrastructure development in vocational schools and the healthcare sector. For these projects, Hungary has provided aggregated costing estimates which cannot fully take into account differences between the content of the proposed and historical investments.

The plausibility of cost estimates is impacted by the recent volatility of the Hungarian forint, by creating uncertainty in the estimated cost of imported investment goods. Since the beginning of 2022, the forint depreciated by some 11% relative to the euro and showed significant fluctuations in response to macroeconomic and geopolitical developments. In order to arrive at a stable exchange rate assumption that is not affected by short-term fluctuations, Hungary applied the average exchange rate of six months before the finalisation of the cost estimates (394.83 HUF/EUR), which is nonetheless somewhat lower than the values observed during the finalisation of the present staff working document.

Taking into account the limitations of ex ante cost estimates, the submitted evidence and the amounts proposed for financing were found appropriate and the cost estimates were deemed plausible to a medium extent.

No double EU financing

Hungary has overall provided sufficient information and evidence that the estimated costs of the investments and reforms envisaged to be supported by the Facility are not financed or planned to be financed by other EU funds. Overall, synergies with other EU funding instruments and the demarcations from other EU funds are explained. For various measures, synergies will need to be carefully monitored at project level during implementation, especially with regards to cohesion policy funds. Hungary put in place a joint monitoring IT system that would allow the filtering and exclusion of the financing of the same expenditure twice by the same final recipient/beneficiary. In addition, the envisaged arrangements to ensure the avoidance of double funding (see section 4.10) seem sufficient to prevent double funding at project level. However, the authorities need to remain vigilant and use the described tools effectively in this regard.

Commensurate and cost-efficient costs

The estimated total cost of the plan is commensurate with the expected social and economic impact of the envisaged measures. The plan is expected to contribute to addressing a significant subset of challenges identified in the country-specific recommendations. The plan also contains several measures that aim to foster economic growth and economic cohesion in an inclusive manner. It is addressing weaknesses of the Hungarian economy, boosting the growth potential, stimulating job creation, and mitigating the adverse effects of the crisis. This is particularly visible in measures that may increase effective labour supply through higher availability of childcare services and better education and health outcomes, as well as investments in education and R&D. The plan also contains measures that aim to strengthen social cohesion and social protection systems, including an integrated development programme for the most disadvantaged settlements.

The justification provided by Hungary on the amount of the estimated total costs of the recovery and resilience plan is to a medium extent reasonable, plausible, in line with the principle of cost efficiency and commensurate to the expected national economic and social impact on the economy. Hungary has provided sufficient information and evidence that the amount of the estimated cost of the reforms and investments of the recovery and resilience plan to be financed under the Facility is not covered by existing or planned Union financing. This would warrant a rating of B under the assessment criterion 2.9 in Annex V to the RRF Regulation.

4.10. Controls and audit

A robust national internal control system should ensure the protection of the financial interests of the Union (prevent, detect and correct fraud, corruption, double funding and conflicts of interest), as well as ensure the accuracy of the data underlying milestones and targets.

Robustness of internal control system and distribution of roles and responsibilities

The national set-up of Hungary's internal control systems is clearly defined and the role of the bodies involved is clearly described. The National Authority is designated as central coordinator.

The plan clearly sets out that the National Authority is responsible for preventing, detecting and correcting serious irregularities. The plan also details the ministries that are responsible for supporting the National Authority and monitoring the implementation of each of the components of the plan. The National Authority (the Office of the Deputy State Secretary of the ministry responsible for the implementation of Union support, which is also in charge of the implementation of the plan) will perform management verifications of the fulfilment of milestones and targets in line with applicable law and these verifications will be done by desk reviews or on-the-spot checks. Where implementing bodies or sub-granting bodies are involved, the management verifications (both desk-based and on-the-spot) may also be carried out by those bodies based on the delegation agreement. The National Authority will supervise the implementing bodies and sub-granting bodies and carry out regular controls on them. A dedicated unit within the National Authority will be responsible for dealing with irregularities, including for assessing their appropriate follow-up. In case of suspected irregularities, the RRF Complaint and Irregularity Management Unit within the National Authority will be the body to decide how to deal with the situation and what legal consequences should be applied if an irregularity is found. That unit will examine all complaints made in relation to the use of RRF resources; carry out desk-based checks, carry out on-the-spot checks as part of its function, as well as request information and data from the bodies implementing RRF measures if it wishes. To ensure independence, it is legally protected from receiving instructions in the performance of its area of affairs in connection with decisions on irregularities and complaints relating to the use of RRF resources within its remit.

The Directorate General for Audit of European Funds (EUTAF) is designated as audit authority and is expected to carry out the audit of the implementation of the plan. EUTAF has extensive audit experience, sufficient administrative capacity and is expected to conduct both system audits and substantive testing. In light of the increased responsibilities of EUTAF, Hungary committed to ensure the necessary legislative and budgetary arrangements to provide necessary financial and human resources to the EUTAF and to safeguard its independence to enable it to carry out its tasks. The EUTAF is expected to develop an effective audit strategy in line with internationally accepted audit standards before the submission of the first payment request under the plan. Based on its audit work, it is expected to prepare for the National Authority a summary of the audits carried out to accompany the payment requests to the Commission. The final version of the audit strategy is included as a milestone in the plan, to be fulfilled before the submission of the first payment request and is a condition for the first payment.

Persons involved at any level in the implementation of the plan will have to avoid any (perceived) conflict of interest, which will be checked by a newly-established Directorate for Internal Audit and Integrity (DIAI). All staff are required to regularly declare their interests and they will need to report any conflict of interest or risk thereof that may come to their attention. A new DIAI is expected to be established in the ministry responsible for the implementation of Union support before the submission of the first payment request. It will be responsible for carrying out regular controls of the veracity of conflict of interest declarations. The DIAI will be independent from the National Authority. Its work will be supervised by the newly-established Integrity Authority as well as the audit authority for the plan (EUTAF).

Adequacy of control systems and other relevant arrangements

The plan contributes to the protection of the financial interests of the Union by reinforcing the anti-corruption framework and ensuring that detected irregularities are appropriately followed up and sanctioned, including through the judicial system. The plan includes several measures to reinforce the anti-corruption framework, including through the setting up of an Anti-Corruption Task Force with a significant involvement of independent non-governmental organisations, through the reinforcement of the accountability of investigating authorities and the prosecution services when handling corruption cases, and through increasing independent oversight by means of reinforced transparency and access to public data. Moreover, the establishment of an independent Integrity Authority is expected to reinforce the prevention, detection and correction of fraud, conflict of interest and corruption as well as other illegalities and irregularities concerning the implementation of Union support, with a particular focus on public procurement. Finally, the reinforcement of the judicial system will ensure that detected irregularities will be effectively dealt with by the judiciary, thus ensuring their correction and the protection of the interests of the taxpayers.

The arrangements and mechanisms to collect, store and make available data on final recipients seem appropriate. Article 22(2), point (d), of the RRF Regulation provides for an

obligation of the Member States, for the purpose of audit and control, to collect data on final recipients, contractors, subcontractors and beneficial owners. Information collection on the implementation of the RRF in Hungary will be ensured through the FAIR-EUPR monitoring IT system which was developed for the monitoring of the implementation of cohesion policy funds. Hungary presented sufficient assurance that adequate and regular checks will be in place to ensure the quality, reliability and veracity of data in the monitoring system. Those controls include automatic consistency and logical checks of the IT system itself that prevents uploading the same supporting documents twice and checking whether some of the main characteristics are in line with each other, availability of interfaces with official public administration databases that supports the “once only” principle and ensures that only official data is used in the system. Various controls on the data provided and targeted audits are expected to provide sufficient assurance.

Hungary is expected to provide access to data and to do so speedily and effectively. The related roles and obligations of bodies involved in the implementation, monitoring, control and audit of the RRF in Hungary are expected to be set out in a legislative act. This is envisaged in a dedicated milestone on the entry into force of the Government Decree setting out the roles and responsibilities of bodies involved in the implementation, audit and control of the plan, as well as in a dedicated milestone on the repository system, both to be completed before the submission of the first payment request.

Hungary committed to systematically and effectively use the Arachne data-mining and risk-scoring tool provided by the Commission. Detailed arrangements are expected to be in force that ensure that a wide set of data is uploaded into the system every two months and that the different control and audit authorities systematically use the risk-scoring generated by the Arachne tool and take them into account during their controls and audits. It is also ensured that the different implementing and control bodies will systematically follow-up on risks indicated by the Arachne tool based on binding procedural guidelines that should describe steps to be taken by these bodies in case that Arachne tool indicates risks. The adequacy of the practical arrangements of the use of the Arachne tool are expected to be subject to a dedicated audit by the audit body.

Accordingly, dedicated audit and control milestones, including a number of milestones to be fulfilled before the submission of the first payment request, are in place to ensure that the internal control system of the RRF in Hungary is effective in preventing, detecting and correcting fraud, corruption, conflict of interests, double funding and other irregularities. The satisfactory fulfilment of these milestones will give the necessary reassurance that the legal obligation of Hungary to protect the financial interests of the Union is met. Taking into account the systemic irregularities, deficiencies and weaknesses identified for Hungary in the procedure under Article 6 of Regulation (EU, Euratom) 2020/2092 on a general regime of conditionality for the protection of the Union budget (‘the Conditionality Regulation’), a significant number of milestones to be fulfilled prior to the submission of the first payment request under the plan have been identified.

Overall, Hungary’s procedures to prevent fraud, corruption and conflicts of interest as well as to ensure compliance with applicable law seem comprehensive provided that all dedicated audit and control milestones are satisfactorily fulfilled. Based on the expected adequacy of the

different control and audit layers of the institutional framework, on the expected legislative and practical provisions which are envisaged to significantly tighten requirements regarding the implementation and control of the use of Union support in Hungary, as well as on the additional arrangements Hungary has committed to implement, it can be concluded that the arrangements can reasonably be expected to be effective in preventing, detecting and correcting fraud, corruption, conflict of interest and other irregularities when implementing the plan.

Adequacy of arrangements to avoid double EU funding

The arrangements to detect and avoid double funding from RRF and other EU funds and programmes are clearly described in the plan. Responsibility for avoiding double funding lies with the National Authority and will be monitored closely using a common monitoring IT system. Hungary identifies in detail the main demarcation lines regarding the source of financing between the RRF and cohesion policy programmes.

In addition, there is coordination of the different funding streams. In particular, the National Authority will coordinate the planning and implementation of cohesion policy spending and RRF spending. The work will involve regular consultation at management and expert level for both funding streams. Further coordination is envisaged through the Development Policy Coordination Committee, which is a government preparatory body for the coordination of the development actions co-financed by EU funds in Hungary.

Finally, Hungary will monitor its RRF spending by using the same monitoring IT system it uses for cohesion policy spending (FAIR-EUPR). This will allow to track measures in a single database and thus make it easier to identify potential overlaps and double financing. The authorities will also systematically use the Commission's Arachne risk-scoring tool for both financing streams, which will also contribute to the identification of the risks of potential double financing.

The arrangements described in the plan seem sufficient and adequate to exclude the possibility of double funding.

Legal empowerment and administrative capacity of control function

Hungary's plan demonstrates that the ministries and bodies responsible for carrying out controls on the implementation of the plan (the measures and the underlying investments or reforms) have sufficient legal mandates (authority) to exercise these tasks. This is expected to be set out in a Government decree 373/2022. The National Authority's number of staff (71) and its distribution as presented in the submitted plan seem to be adequate. A proper internal separation of functions is ensured as well. An additional staff of 50 officials in the line ministries is dedicated to support the work of the National Authority in ensuring the monitoring and the complementarity of implementation of the different measures. Implementing bodies to which certain implementation tasks of the National Authority are delegated were selected on the basis of their professional expertise and available administrative capacity to carry out their tasks, which will be continuously supervised by the National Authority.

The EUTAF is expected to carry out a number of additional tasks, not only related to the audit of RRF, but also tasks related to the Hungarian commitments undertaken in the context of the Conditionality procedure under the Regulation (EU, Euratom) 2020/2092. It is expected that the EUTAF will have appropriate resources to effectively perform these increased tasks in a timely manner. For that purpose, a milestone is added which has to be fulfilled before the submission of the first payment request under the plan.

The arrangements proposed by Hungary in the recovery and resilience plan to prevent, detect and correct corruption, fraud and conflicts of interest when using the funds provided under the Facility, including the arrangements aimed to avoid double funding from the Facility and other Union programmes, are assessed to be adequate subject to the implementation of the identified audit and control milestones before the first payment request. This would warrant a rating of A under the assessment criterion 2.10 of Annex V of the RRF Regulation.

4.11. Coherence

The recovery and resilience plan of Hungary includes nine coherent components, which support the objectives of mitigating the adverse impact of the COVID-19 crisis on the economy, employment and society and contributing to the green and digital transitions. At the same time, measures in the plan are expected to contribute to the long-term economy policy objectives of the Hungarian government in line with the country-specific recommendations addressed to Hungary in the European Semester process.

Each component is built around consistent packages of measures and the plan includes both reforms and investments that mutually reinforce or complement each other.

Mutually-reinforcing measures

The plan presents a coherent and comprehensive package of reforms and investments that are generally reinforcing each other. In Component 8 (Health), the reorganisation of the hospital network through creating county-level hospital networks with integrated patient pathways is complemented by investment in the hospitals including both energy efficiency renovation and new modern healthcare equipment, the development of e-health services, and reforms and investments in primary care services. In Component 6 (Energy – green transition), there are mutually-reinforcing reforms and investments: the plan includes an investment measure to support the deployment of solar panels on residential houses, and as a complement a reform aims to create a more effective administrative and legal framework to accelerate the deployment of renewable energy projects and their connection to the electricity system. In Component 1 (Demography and public education), there is a mix of reforms and investments to improve the attractiveness of the teaching profession, including increasing the salaries of teachers in the public education system, providing laptops to teachers and offering trainings to reinforce the skillset of teachers and school managers.

There are also mutually reinforcing measures across components, which are expected to address the same challenge from different angles. Component 1 (Demography and public education) includes measures to increase the number of places in childcare facilities, which is expected to improve the employment possibilities of parents, and notably women. A measure in Component 2 (Highly qualified, competitive workforce) develops and promotes adult training with digital content, which is also expected to improve the employability of the workforce. As regards energy, the RRP includes measures to provide investment support for energy efficiency investments both for residential and public buildings, in particular for education and healthcare facilities. Similarly, both Component 6 (Energy – green transition) and Component 3 (Catching-up settlements) support the deployment of renewable electricity generation through the installation of solar panels; the focus in Component 3 on low-income households is expected to complement and reinforce the deployment of renewable energy sources by addressing specific hurdles for disadvantaged settlements. Finally, the digital transformation is systematically promoted across the plan through a combination of reforms in the form of digitalisation initiatives and investments in ICT equipment and skills development in sectors such as education, healthcare, energy, transport and in the public administration.

Complementarity of measures

Synergies can be found between different components and also between individual measures. These are in many cases complementing each other. For example, in Component 3 (Catching-up settlements), all measures complement one another in a comprehensive way, and provide a targeted approach to measures addressed in other components in the specific case of disadvantaged settlements. In this component, measures aim at addressing the same challenges, such as adverse impact of poverty, poor living conditions and shortage of job opportunities in the most disadvantaged settlements. The measures include both investment in infrastructure, such as the refurbishment of dwellings in poor state and building new social houses, and investment in human capital, such as skills development and community-oriented pedagogy.

At the level of the overall plan, some components pursue complementary aims. The various components are also expected to provide synergies. For example, Component 9 (Governance and public administration) includes several measures to improve competition in public procurement. As most of the investment in other components are set to be implemented through public procurement, the efficiency of public procurements is expected to have a complementary effect on various other components. Some reforms are expected to have a cross-cutting impact on the quality and effectiveness of legislation in all areas, such as the measures aiming to improve the quality and transparency of decision-making in Component 9. In addition, Component 9 aims to improve the quality of public spending through expenditure reviews, which can help to identify efficiency gains that may lead to better public services or to cost savings. These reviews complement the reforms and investments in Components 1 and 8 which foresee institutional reorganisations in the fields of education and health. Furthermore, Component 2 finances applied R&D in several

thematic areas, which may contribute to achieving the goals of Components 2, 4, 6 and 8 in particular.

Taking into consideration the qualitative assessment of all components of Hungary's recovery and resilience plan, their individual weight (importance, relevance, financial allocation) and their interactions, the plan contains measures for the implementation of reforms and public investments which, to a medium extent, represent coherent actions. This would warrant a rating of A under the assessment criterion 2.11 of Annex V to the RRF Regulation.

ANNEX – Climate and Digital tagging

Note: while the total cost of Hungary's recovery and resilience plan exceeds the total allocation of non-repayable financial support to Hungary, Hungary will ensure that all spending related to the measures mentioned in this table as contributing to climate and digital objectives are fully financed by the funds from the Recovery and Resilience Facility.

Int. Field = intervention field

Coeff. = Coefficient for the calculation of support to climate change objectives and to digital transition, on the basis of Annex VI and Annex VII of the RRF Regulation

| Measure/ Sub-Measure ID | Measure/Sub-Measure Name | Budget (EUR m) | Climate | | Digital | |
|-------------------------------|---|-------------------|------------|----------|------------|----------|
| | | | Int. Field | Coeff. % | Int. Field | Coeff. % |
| C1.R1 | Development of competitive public education using 21 st century technology | 391 | | | 012 | 100% |
| C1.I4.1 | Creation of new crèche places - Renovation/extension of existing buildings | 16 | 026 | 40% | | |
| C1.I4.2 | Creation of new crèche places - New buildings | 98 | 025ter | 40% | | |
| C2.R1.1 | Modernisation of higher education courses – IT services and applications | 0.5 | | | 012 | 100% |
| C2.R1.2 | Modernisation of higher education courses – Support to digital content production and distribution | 0.03 | | | 021bis | 100% |
| C2.I1.1 | Institutional innovation and strengthened activities in higher education – E-curriculum development | 23 | | | 108 | 100% |
| C2.I1.2 | Institutional innovation and strengthened activities in higher education – Micro-credentials | 23 | | | 021bis | 100% |
| C2.I2.1 | Modernisation of infrastructure and digitalisation in higher education institutions – Capacity development activities, including organisation of trainings, skill development | 7 | | | 016 | 40% |
| C2.I2.2 | Modernisation of infrastructure and digitalisation in higher | 76 | | | 012 | 100% |

| Measure/ Sub-Measure ID | Measure/Sub-Measure Name | Budget (EUR m) | Climate | | Digital | |
|-------------------------------|--|-------------------|------------|----------|------------|----------|
| | | | Int. Field | Coeff. % | Int. Field | Coeff. % |
| | education institutions - Digital equipment | | | | | |
| C2.I2.3 | Modernisation of infrastructure and digitalisation in higher education institutions - Energy efficiency renovation | 41 | 026bis | 100% | | |
| C2.I2.4 | Modernisation of infrastructure and digitalisation in higher education institutions - New buildings | 5 | 025ter | 40% | | |
| C2.I3.1 | Development of digital curricula for vocational education and training - Digital learning materials | 42 | | | 108 | 100% |
| C2.I4.1 | Vocational education and training infrastructure for the 21 st century - Energy efficiency renovation | 22 | 026bis | 100% | | |
| C2.I4.2 | Vocational education and training infrastructure for the 21 st century - Purchase of ICT equipment | 17 | | | 108 | 100% |
| C2.I5.1 | Development of the Central Examination Centre - Energy efficiency renovation | 5 | 026bis | 100% | | |
| C2.I6 | Establishment of national research and development laboratories | 184 | | | 021 | 40% |
| C3.I2 | Production and use of renewable energy in disadvantaged municipalities | 30 | 029 | 100% | | |
| C4.R1 | Awareness raising | 0.1 | 040 | 40% | | |
| C4.I1.1 | Construction of main water replacement systems, development of new networks and systems | 112 | 040 | 40% | | |
| C4.I1.2 | Construction of main water replacement systems, development of new networks and systems – Monitoring system at local level | 0.6 | | | 055 | 100% |
| C4.I2 | Establishment of a monitoring system | 25 | | | 055 | 100% |

| Measure/ Sub-Measure ID | Measure/Sub-Measure Name | Budget (EUR m) | Climate | | Digital | |
|-------------------------------|--|-------------------|------------|----------|------------|----------|
| | | | Int. Field | Coeff. % | Int. Field | Coeff. % |
| C4.I3 | Nature protection | 7 | 040 | 40% | | |
| C5.R1 | Deployment of a single national tariff, ticketing and passenger information system for bus and rail by the National Public Transport Authority | 23 | 070 | 40% | 070 | 100% |
| C5.I1.1 | Capacity building of suburban rail network - Rail Fixed infrastructure | 554 | 069bis | 100% | | |
| C5.I1.2 | Capacity building of suburban rail network - Multimodal hubs | 31 | 079 | 40% | | |
| C5.I1.4 | Capacity building of suburban rail network - Rail Signalling and Management System | 113 | 070 | 40% | 070 | 100% |
| C5.I2.1 | Rail network congestion switching on TEN-T corridor - Almásfüzitő-Komárom | 51 | 067 | 100% | | |
| C5.I2.2 | Rail network congestion switching on TEN-T corridor - Békéscsaba-Lökösháza | 372 | 067 | 100% | | |
| C5.I3.1 | Development of zero-emission bus transport - Electric buses | 143 | 074 | 100% | | |
| C5.I3.2 | Development of zero-emission bus transport - Charging stations | 16 | 077 | 100% | | |
| C5.I4 | Deployment of central traffic management on TEN-T railways | 76 | 070 | 40% | 070 | 100% |
| C6.I1 | Classic and smart grid development of transmission system operator and distribution system operators | 415 | 033 | 100% | 033 | 40% |
| C6.I2.1 | Support for the use of residential solar panels and heating modernisation – PV panels, storage and heat pumps | 410 | 029 | 100% | | |
| C6.I2.2 | Support for the use of residential solar panels and heating modernisation – Renovation | 61 | 025 | 40% | | |
| C6.I3 | Installation of energy storage facilities for the transmission system operator and distribution system operators | 147 | 033 | 100% | 033 | 40% |

| Measure/ Sub- Measure ID | Measure/Sub-Measure Name | Budget (EUR m) | Climate | | Digital | |
|-----------------------------------|--|-------------------|------------|----------|---------------|----------|
| | | | Int. Field | Coeff. % | Int. Field | Coeff. % |
| C6.I4 | Installation of grid energy storage facilities for energy market participants | 157 | 033 | 100% | 033 | 40% |
| C6.I5 | Dissemination of smart metering | 56 | 033 | 100% | 033 | 40% |
| C7.I1 | Strengthening a smart, innovative and sustainable waste management industry and secondary raw materials market | 109 | 045bis | 100% | | |
| C8.I1.1 | Developing the conditions for healthcare in the 21 st century - New construction | 137 | 025ter | 40% | | |
| C8.I2 | Supporting the digital transformation of health | 250 | | | 095 | 100% |
| C8.I3 | Remote health monitoring programme for the elderly | 229 | | | 095 | 100% |
| C9.R8 | Upgrading the cooperation systems of the prosecution service to tackle corruption practices | 9 | | | 011 quater | 100% |
| C9.R14.2 | Training scheme and support scheme for micro-, small and medium enterprises to facilitate their participation in public procurement procedures – Development of digital skills | 0.8 | | | 108 | 100% |
| C9.R28 | Support to the data-based decision-making and legislative process with a view to increasing efficiency, transparency and reducing risks of irregularities | 4 | | | 011 | 100% |
| C9.R29 | Extension of the automatic administrative decision-making system with a view to increasing efficiency, transparency and reducing risks of irregularities | 6 | | | 011 | 100% |
| C9.R30 | Strengthening the national IT equipment management system to increase the efficiency of public services | 42 | | | 011 | 100% |