EUROPEAN
COMMISSION

Brussels, 19.6.2024
SWD(2024) 610 final

COMMISSION STAFF WORKING DOCUMENT

2024 Country Report - France

Accompanying the document

Recommendation for a COUNCIL RECOMMENDATION

on the economic, social, employment, structural and budgetary policies of France

{COM(2024) 610} - {SWD(2024) 600}

European Commission

France

2024 Country Report

#EURO at 25



ECONOMIC AND EMPLOYMENT SNAPSHOT

France's economy slowed in 2023 amid high inflation and tighter financial conditions

France's economy slowed significantly in the second half of 2023, but activity is expected to recover progressively ([1]). This deceleration stemmed from high inflation and tighter financial conditions. Real GDP is estimated to have grown by 0.7% in 2023. Economic activity is expected to only gradually gather momentum in 2024. Investment is set to remain subdued until the cost of capital decreases. However, the projected decrease in inflation is expected to allow for a gradual recovery starting in the second half of the year. Private consumption is set to drive GDP growth as inflationary pressure reduces and households' savings rate falls gradually back to its historical average. Activity is therefore forecast to increase by 0.7% in 2024 and 1.3% in 2025.

In 2022, Russia's invasion of Ukraine led to a surge in energy and commodity prices that drove up inflation. After peaking at 7.0% in the first quarter of 2023, HICP inflation decreased throughout the year. It reached 4.2% in the fourth quarter, largely thanks to declining energy and commodity prices. It fell further in the first quarter of 2024, softening to 3.0%. There was a widespread slowdown in consumer price inflation, particularly as lower commodity prices started to pass through from manufacturers to consumers. The downward trend in inflation is set to continue as energy and commodity prices are no longer putting pressure on inflation. After 5.7% in 2023, HICP inflation is expected to reach 2.5% in 2024 and 2.0% in 2025.

France's vulnerabilities related to high public debt persist, whereas those linked to competitiveness challenges in a context of low productivity growth are showing signs of reduction. Fiscal sustainability risks remain high in the medium term. However, price-based competitiveness indicators evolved favourably since 2020, while unit labour costs rose in 2021-23 on the back of a decline in labour productivity, although the latter was to a large extent explained by temporary factors. Since 2019, structural employment has increased significantly. Labour productivity and cost competitiveness are expected to improve in the future ([2]).

Employment keeps growing, but challenges persist

Employment growth is slowing after years of performing strongly. Despite the economic slowdown, the labour market continued to be resilient in 2023, with a limited increase in unemployment. Its recent rise is mostly related to an increase in active population, particularly driven by the pension reform in 2023. However, at 7.5% in the fourth quarter of 2023, the unemployment rate remains high compared to both the EU and euro area averages, Reducing the overall rate and the youth unemployment rate are key priorities for France. Although the employment rate and the activity rate reached record levels in 2023, further progress in employment and

([1]) The cut-off date for the data used to prepare the Country Report was 15 May 2024.

([2]) See in-depth review under the macroeconomic imbalance procedure for France, European Commission, SWD(2024) 100 final.

participation rates is needed to support economic growth and reach the national employment target of 78% for 2030. Further improvements in the inclusion of disadvantaged groups and older workers in the labour market are warranted (see Annex 14).

Labour shortages and skills mismatches are still major issues. Labour shortages increased steadily in 2021, peaking in 2022, but have decreased since the beginning of 2023. Employers reported the lack of adequately trained workers as one of the main barriers to recruitment, ahead of workers' demands for better working conditions. The main sectors affected are industry, construction, information and communication, education and health. The results of recent upskilling and reskilling measures, including efforts to reduce recruitment tensions and the apprenticeship scheme, suggest training should be better aligned with employers' needs (see Annex 14).

Although France effectively implements the European Pillar of Social Rights, it still faces challenges in education, employment and rising poverty. Most of the Pillar scoreboard indicators are the same as or above the EU average (see Annex 14). Nevertheless, socio-economic inequalities persist, affecting pupils' educational results. Disadvantaged groups also face difficulties to enter the labour market and participating in suitable training. An increasing share of the population, especially children, is exposed to a risk of poverty or social exclusion, resulting in France further deviating from its 2030 target on poverty reduction. Energy poverty indicators have worsened. The share of the population unable to keep their homes adequately warm doubled between 2018 and 2022.

Public debt risks entering an upward trend

The COVID-19 and the energy crises have left a heavy legacy on public debt. Already high in 2019, the public debt ratio rose to 114.6% of GDP in 2020 due to a sharp increase in the general government deficit and a substantial fall in GDP. Since then, the economic rebound allowed for some improvement in public finances despite the sizeable measures deployed to mitigate the effects of the recent crises. Those measures, jointly with higher interest payments stemming from tightening monetary policy and higher inflation, hampered a faster reduction in public deficits. Thus, the observed decline in the public debt-to-GDP ratio until 2023 has been mainly due to nominal GDP growth. In 2023, France's government deficit remained high, at 5.5% of GDP, while the public debt ratio fell to 110.6% of GDP.

Reducing public debt is a major challenge. According to the Commission's debt sustainability analysis, without any further policy action, public debt is projected to keep rising in the medium term, driven by persistently high structural primary deficits (see Annex 20). Therefore, France is assessed to face high fiscal sustainability risks in the medium term and medium risks in the long term. Negative shocks to future interest rates or economic growth could significantly darken the picture. Boosting competitiveness and potential growth by enhancing labour productivity and strengthening employment growth would help reduce public debt and mitigate medium-term sustainability risks.

High public and private debt could be a source of vulnerability. After peaking at 174% of GDP in 2020, the private debt-to-GDP ratio, especially for non-financial corporations, started declining driven by high nominal GDP growth. The fall continued due to a significant slowdown in credit flows, which was the result of tighter financing conditions starting in the second half of 2022. Despite remaining high at 154% of GDP, private debt returned to pre-pandemic levels in 2023. Private debt risks remain contained, and non-performing loans kept falling, maintaining their historical lows in 2023.

Box 1:

France's competitiveness in brief

France's competitiveness is gradually improving, supported by public investment and reforms set out in the recovery and resilience plan (RRP). The country attracts the largest number of foreign direct investment projects compared to other Member States, mainly due to the availability of decarbonised energy and reliable infrastructure. In addition, government financial support to business research and innovation ranks among the highest in the EU.

However, competitiveness challenges remain:

- **Maintaining employment growth and tackling high unemployment.** Further efforts are needed in employment, education and skills to raise potential growth. Higher employment should be accompanied by increases in labour productivity by reducing persistent skills mismatches and shortages and improving educational outcomes.

- **Stagnating business R&D intensity especially in SMEs.** Business R&D remains well below the Europe 2020 strategy target of 2% of GDP, while the effectiveness of the sizeable public support schemes is often called into question. The uptake of digital technologies is slow, especially in SMEs. In addition, the administrative burden is still perceived as heavy, and regulatory barriers impede competition in the services sector.

Significant investments are needed to adapt to and mitigate climate change. The French Court of Auditors highlighted the need for action to address the consequences of climate change that are likely to affect major energy and transport infrastructure ([3]), equipment, housing and the natural environment. There is also a need to decarbonise the economy at an unprecedented pace that will require a sustained investment agenda in the coming decades. A recent report by France Stratégie estimates that the investment need could exceed 2 percentage points of GDP in 2030 compared to a scenario without climate action ([4]).

Competitiveness is showing signs of improvement. Since 2020, price-based real effective exchange rates depreciated more in France than in most other EU economies. This was due to lower inflation in France than in its trading partners, the euro falling against the dollar and government measures, especially reductions in taxes on production and the corporate tax rate. The increase in the cost of labour was in line with the euro area during the COVID-19 crisis in 2020, higher in 2021 and 2022 and then slower in 2023 thanks to more moderate wage increases to compensate for relatively lower inflation. Reforms in recent years and ongoing investments are expected to keep supporting non-price competitiveness and productivity. These efforts need to be sustained (see Box 1.1).

Wage growth has been limited and is already decreasing. Real wage growth over 2022 and 2023 was negative, despite improvements in labour market conditions. Wage growth has already started to slow significantly in nominal terms, resulting in continued negative real wage growth in Q4-2023. However, the minimum wage indexation has limited losses in real wages for many workers. Between December 2020 and January 2024, the minimum wage rose by 14.8%. In January 2023, the minimum wage

([3]) Cour des comptes, Rapport Public Annuel 2024, https://www.ccomptes.fr/sites/default/files/2024-03/20240312-syntheses-RPA-2024.pdf.

([4]) France Stratégie: J. Pisani-Ferry, S. Mahfouz (2023), THE ECONOMIC IMPLICATIONS OF CLIMATE ACTION - A Report to the French Prime Minister.

Box 2: **UN Sustainable Development Goals (SDGs)**

France is making progress in all SDGs related to competitiveness and productivity (SDG 4, 8, 9). Nevertheless, SDG 9 related to innovation, industry and sustainable infrastructure is slightly below the EU average, mostly due to the low proportion of freight transport infrastructure and households with high-speed internet connections. Performance in work and economic growth indicators (SDG 8) improved, except for the number of fatal accidents at work and the number of people working who are at risk of poverty.

Out of the 17 SDGs, indicators for 8 SDGs remain below the EU average. Besides those highlighted above, these relate to sustainable cities and communities (SDG 11), including resilient communities, fairness (SDGs 3, 7, 10) and macroeconomic stability (SDGs 16 and 17).

applied to more than 17% of private sector workers, compared to 12% in 2021.

Temporary factors have weighed on France's labour productivity growth since 2020. The COVID-19 pandemic triggered a major drop in labour productivity, from which the French economy has not yet recovered. Employment proved very resilient during the COVID-19 and energy crises and remained strong in 2023. Policy measures adopted since 2018 may help explain this resilience. These measures range from permanent cuts in social contributions and production taxes to emergency measures during the crises to support firms and protect employees. One example is the partial activity schemes to avoid massive lay-offs during the COVID-19 crisis. Decisive policy action underpinned the increase in apprenticeship contracts by almost 600 000 between January 2019 and October 2023, boosting job prospects for young people. In turn, market expectations in a context of tight labour market ([5]) may have led to significant labour hoarding in industrial branches, mainly aeronautic and automotive industries. Despite contributing to positive employment trends in recent years, these factors, through their cumulative impact, mechanically weighed on labour productivity. Despite the acute decline since 2020, labour productivity in levels stands well above the EU average, at around 117% of the EU aggregate in 2023. Looking ahead, the impact of these factors is expected to diminish. France's labour productivity, measured in full-time equivalent jobs, is projected to grow in line with the euro area and EU averages in 2024 and 2025.

Structural weaknesses persist, in particular due to low business R&D and skills shortages. Public R&D spending is not far from 1% of GDP, but business R&D is still well below the goal of 2% of GDP. This lags behind the aggregate Europe 2020 strategy target of 3%, in spite of sizeable public support schemes (e.g. *Crédit d'impôt recherche*) (see Annex 11). A low uptake of digital technologies by businesses, skills shortages and mismatches, and weak productivity in certain sectors continue to take a toll on productivity.

Significant regional disparities persist. Most French regions have a lower GDP per capita than the EU average, except for the capital region (Île-de-France, 176%) and Rhône-Alpes (105%): 22 out of 27 regions lost ground between 2012 and 2021 (see Annex 17). These disparities mostly stem from differences in labour productivity, regional innovation performance (low in predominantly non-urban areas and deindustrialised regions) and educational attainment. The outermost regions face disadvantages in many of these areas. In addition, some regions, in particular non-urban areas, are more affected by a lack of medical services (see Annex 16). Tackling regional imbalances is key to improving France's long-term economic growth prospects.

([5]) In October 2022, 62% of firms in the services sector, 66% in industry and more than 80% in construction declared difficulties to recruit workers with the required skills.

IMPLEMENTATION OF KEY REFORMS AND INVESTMENTS USING EU INSTRUMENTS

Funding from the Recovery and Resilience Facility (RRF) and cohesion policy funding is mutually reinforcing France's efforts to boost its competitiveness and foster sustainable growth. In addition to the EUR 40.3 billion of RRF funding described in Annex 3, cohesion policy provides EUR 16.8 billion to France for the 2021-2027 period. Support from these two instruments combined represents around 2.04% of the country's 2023 GDP, compared to the EU average of 5.38% of GDP (see Annex 4).

Under its recovery and resilience plan (RRP), France has launched important policy measures that are expected to improve the country's competitiveness. In particular, the RRP envisages major reforms in employment, public finances, healthcare, energy consumption and renewable energy sources. France also made substantial investments in the energy renovation of buildings, sustainable transport, the green and digital transitions, research and innovation and reducing the administrative burden on businesses.

The implementation of France's recovery and resilience plan is well underway. France submitted three payment requests, corresponding to 132 milestones and targets in the plan and received an overall disbursement of EUR 23.4 billion, as of mid-May 2024. Beyond the third payment request, the implementation of the plan is broadly on track (see Annex 3).

Cohesion policy funding helps tackle France's growth and competitiveness challenges and reduce the country's territorial and social disparities. Under the 2014-2020 cohesion policy programming period, support from the European Regional Development Fund's (ERDF) focused on research and innovation and energy efficiency. Meanwhile, the European Social Fund (ESF) has been oriented towards investment in social inclusion, employment guidance and access to skills. For the current 2021-2027 programming period, ERDF support is aimed at innovation, digitalisation and the green transition. The ESF+ continues to support social inclusion and investment in people.

Developing a multi-annual fiscal pathway to reduce public debt

Fiscal reforms under the RRP provide appealing avenues to credibly reduce public debt, but decisive implementation will be of the utmost importance. Although delayed, the adoption in November 2023 of the public finances programming law for 2023-2027 sets up a multi-annual expenditure standard as required by the organic law on modernisation of public finance management. This should contain the dynamics of public spending. However, abiding by this multiannual expenditure trajectory would call for an ambitious and effective implementation of the new spending review programme, in force since January 2023. The first round of spending reviews produced a report to Parliament in July 2023 and contained specific proposals for potential expenditure savings and increased efficiency in several areas. However, concrete translation of these proposals into the 2024 budget law appears to be limited. Going forward, it will be important to ensure that spending review's results have a bigger impact on future budgetary plans. All this should help contain the dynamics of public spending, which is crucial to address fiscal sustainability risks and to put public debt on a sustained downward trend.

Box 3: **Combined actions for more impactful EU funds**

To boost economic growth and maximise the impact of EU funding, France's RRP includes measures that support investments under other EU instruments, creating important synergies and complementarities between the various funds. For example, to get more young people into work or training, an integrated contractual framework was implemented, aiming to provide every young person with individual support. It includes a phase combining personalised guidance with a monthly subsidy to support participation in the programme, Youth guarantee. France is using RRP investments to finance the subsidies paid to young people along with ESF support to provide the guidance.

Boosting the green and digital transitions

France has been accelerating the energy renovation of buildings since 2021. Around 740 000 households have been supported so far through the fast deployment of the *MaPrimeRénov* scheme and grants allocated to renovating social housing under the RRP. The ERDF is devoting more than EUR 830 million to support the national plans for energy efficiency renovations.

These efforts have been underpinned by reforms such as the climate and resilience law, which targets the two most energy-inefficient categories of dwellings in France (or 'thermal sieves'). The revision of the regulation governing energy and environmental standards of new buildings (RE2020) should help reduce the energy intensity of new buildings.

France is making major investments in sustainable daily mobility and developing public transport with the help of complementary actions supported by the RRP and other EU funds. The RRP includes investments to create new urban metro lines. Furthermore, the ERDF is co-financing cycling and pedestrian infrastructure as well as actions aiming to raise awareness and promote sustainable modes of transport.

France is taking steps to help SMEs and mid-cap companies in the green and digital transitions. Over 3 320 businesses received support to modernise and digitalise their operations. The RRF also supported a scheme to decarbonise industry by reducing energy consumption. These measures are complemented by reforms, such as the law on accelerating and simplifying public action (Loi ASAP), which simplifies administrative procedures for businesses and individuals.

Improving employment conditions

The RRF and cohesion policy funds support measures aiming to improve employment and skills, particularly among disadvantaged groups. The RRP includes measures, notably a temporary reinforcement of the capacities of the public employment agency (*Pôle Emploi,* now *France Travail*). The agency has been working to ease the rapid return of people to work following the COVID-19 pandemic. Measures supporting upskilling and reskilling, with emphasis on digital skills, are also covered. ESF+ aims to contribute to developing skills by investing in access to training, supporting career transitions and promoting lifelong learning.

France is supporting young people's education and employment. The RRP includes 12 measures that are part of the package "1 jeune 1 solution", with notably a reinforcement of the youth guarantee scheme, hiring subsidies for apprentices and for youth under 26, pathways for early school leavers, and measures in higher education. In addition, the Youth Employment Initiative helped young people not in education, employment or training to find a position or another solution after leaving education or losing their job.

FURTHER PRIORITIES AHEAD

France faces challenges related to the skills mismatches, high public debt, stagnating R&D intensity, low uptake of digital technologies by businesses and slow renewable energy deployment. Tackling those issues will help France to foster its long-term competitiveness and potential growth. It will also help achieve the UN SDGs.

The policy assessment under the macroeconomic imbalance procedure considers that France's policy response to macroeconomic imbalances has been broadly appropriate, and efforts need to be sustained ([6])**.** The adoption of the public finances programming law for the 2023-2027 period is a positive step ahead. It sets up a multi-annual expenditure standard that, together with an effective implementation of the new spending review mechanism, could prove crucial to address fiscal sustainability risks and put public debt on a sustained downward trend. Likewise, the reform of the public pension system is expected to have a positive impact on public debt sustainability. Other reforms have contributed to alleviating the fiscal burden on labour, bringing about a rise in employment, especially among low-skilled people, and a continuous decline in unemployment. Investments to boost productivity in the recovery and resilience plan (RRP) and in cohesion policy programmes by supporting the digital transition and research are expected to play a major role in addressing the competitiveness challenges facing the French economy, while providing further boost to productivity growth in the coming years ([7]).

It is important that the identified challenges are addressed at both national and regional levels to reduce regional disparities and improve the administrative and investment capacity in a balanced way across the country.

Implementing a comprehensive strategy to bring down public debt

France keeps facing high debt sustainability challenges in the medium term. Despite edging down between 2021 and 2023, public debt still bears the weight of the government's response that was required to counter the effects of recent crises and remains well above its pre-pandemic level. Looking ahead, public debt is projected to increase in 2024 and 2025. Thereafter, in the absence of any further fiscal adjustment, a considerable increase is expected, keeping fiscal sustainability challenges high in the medium term, although the projected decline in age-related expenditure helps mitigate such challenges in the long term (see Annex 21).

An effective strategy to reduce debt should focus on reducing high structural deficits. The general government deficit is expected to remain high, above 5% of GDP in 2024 and 2025. In turn, France's public expenditure, at 57.3% of GDP in 2023, remains the highest in the EU, with some 7.9 percentage points above the EU average. The Commission 2024 spring forecast projects a similar gap in 2024 and 2025. Curbing primary deficits is necessary to reverse public debt trends and would benefit from

([6]) See in-depth review for France, European Commission, SWD(2024) 100 final

([7]) Model simulations conducted by the Commission using the QUEST model show that the economic impact of the NextGeneration EU in France could lead to an increase in GDP of between 0.6% and 1.0% by 2024. From 2025 to 2030, the impact on GDP could gradually decline from 0.8% to 0.4%. See Box 2 of the Commission's analysis of the recovery and resilience plan of France (SWD(2021) 173 final).

integrating the outcome of spending reviews that entered into force last year into future budgetary decisions. By overcoming the limitations of previous attempts, such a framework should make it possible for France to identify and implement large expenditure savings and efficiency gains. This would make possible to channel more resources to priority policy areas, such as growth-enhancing investments, the green and digital transitions, and social and economic resilience. This comprehensive strategy should be complemented by a systematic and thorough assessment of the complexity of the tax system, focusing on the effectiveness and budgetary cost of tax expenditures ([8]). Tax expenditures challenge French tax system's efficiency and transparency and adds to its complexity. More broadly, they may lead to suboptimal investment decisions and efficiency losses. Tax expenditures remain numerous, imply a heavy budgetary burden (amounting to above 3% of GDP in 2022, excluding the tax credit on competitiveness and employment, CICE), and could be made more efficient ([9]).

Higher potential growth would contribute to a faster reduction in public debt. Potential growth in France has improved in the aftermath of the crises and is estimated at 1.1% in 2023 (compared to 0.8% between 2015 and 2019). Despite the sizeable positive contribution of labour in recent years, labour productivity has not returned to pre-crisis levels, and total factor productivity ([10]) remains subdued. Looking ahead, further strengthening employment is key to underpin potential growth, competitiveness, and, ultimately, economic resilience. This should be done in parallel with efforts to increase labour productivity, by addressing the weaknesses weighing on total factor productivity. Priority actions are reducing skills mismatches and shortages, improving educational outcomes, maintaining efficient and effective support to research and innovation and further expanding the spread of IT knowledge, especially in SMEs. Progress in both employment and labour productivity would foster economic growth and contribute to reducing public debt and mitigating medium-term sustainability risks.

The pension reform adopted in 2023 is expected to have a positive impact on employment and public debt sustainability in the medium term. By gradually raising the statutory retirement age from 62 to 64, the participation rate of older workers is projected to rise, especially in the first 10 years ([11]), thereby raising potential growth. Nevertheless, the social effects of the pension reform should continue to be monitored.

Addressing labour shortages and the decline in educational outcomes

Although employment rose to record high levels, disadvantaged groups face barriers in accessing the labour market. Although the employment rate of the 20-64 year-old reached a record high of 74.4% in 2023, the unemployment rate remains one of the highest in the EU, including for young people. Employment gaps for people with low skills and people born outside the EU are high (see Graph 3.1). In addition, inequalities in the education and training system contribute to exacerbating the challenges disadvantaged groups face in getting into work or training. Helping people from disadvantaged groups find work would lead to stronger and more inclusive growth.

Labour and skills shortages continue to weigh on investment and productivity

([8]) Tax expenditure are special provisions of the tax code such as exclusions, deductions, deferrals, credits, and tax rates that benefit specific activities or groups of taxpayers.

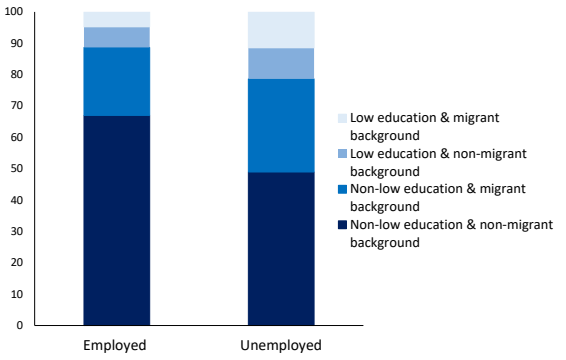
([9]) Cour des comptes (2023), Piloter et évaluer les dépenses fiscales. Notes thématiques, Juillet 2023.

([10]) A measure of productivity accounting for effects in total output not caused by traditionally measured inputs of labour and capital.

([11]) European Commission, 2024 Ageing Report Underlying Assumptions & Projections Methodologies. Institutional Paper 257, November 2023.

growth. Overall, labour shortages remain high, but have recently declined. These shortages are particularly significant in the construction sector but are less prevalent in the industry and services sectors. The lack of skilled workers is one of the main recruitment obstacles. In 2022, this was particularly the case in the industry, ICT and health sectors. In addition, labour shortages were reported in 2023 for a number of occupations that required specific skills for the green transition (see Annexes 8, 12 and 16) ([12]). 83% of French firms (vs 81% in the EU) quote labour and skills shortages as one of the main barriers to investment (see Annex 12). Overcoming skills shortages and mismatches would enable a better distribution of workers across leading sectors, potentially accelerating productivity growth.

Graph 3.1: **Characteristics of employed and unemployed people in 2022 (aged 20-64)**



Source: European Commission

Strengthening adult participation in training to support upskilling and reskilling could stimulate productivity. While adult participation in training over the last 12 months in France is still above the EU average, only around 25% of low-qualified adults participated in learning in 2022. Moreover, since 2019, only one in four trainings target priority sectors, such as those linked to the green and digital transitions, healthcare and industry ([13]), and only one in five enrolments in training target occupations suffering from skills shortages. Significant investments in skills have already been deployed, such as the Plan to reduce recruitment tensions or the Skills investment plan (see Annex 14). However, further measures promoting adult training are critical to help achieve the 2030 adult learning target. This could foster employability, especially people from the most disadvantaged groups, and improve labour productivity.

Focusing on effective active labour market and social policies remains a key priority. France continues to promote activation measures (helping people find work), facilitate access to training for all and reform public employment services (PES) to improve their performance and integration with social services. However, the employment and social impact of the recently adopted overhaul of the PES, *France Travail*, and the reform of the minimum income scheme, with new conditions for the receipt of the benefit has yet to be assessed. France is deviating from its 2030 target on poverty reduction. Despite the country ranking among the highest in the EU in terms of public expenditure on social protection, the share of the population at risk of poverty or social exclusion has increased (see Annex 14). Targeting measures at disadvantaged groups, children and the outermost regions could help France reach its 2030 national employment and poverty reduction targets.

A decline in students' performance in basic skills could weigh on labour productivity in the medium to long term. Despite high public spending on education, educational performance has deteriorated. The results of the 2022 Programme for International Student Assessment (PISA) show that 28.8% of 15-year-olds underperformed in mathematics in France vs 29.5 in the EU, 26.9% in reading in France 26.2% vs in the EU and 23.8% in science in France vs 24.2% in the EU; resulting in scores around the EU averages, which have also worsened substantially (see Annex 15). The share of low-achieving students has significantly increased since 2018 in all three tested subjects, similar to the EU trend. There has also been a

([12]) DARES, '*Les tensions sur le marché du travail en 2022*', *Dares Resultats n°59*, November 2023 and Eurostat data on health personnel.

([13]) Dares (2023), Quatrième rapport du comité scientifique de l'évaluation du Plan d'investissement dans les compétences.

noticeable decline in the share of top performing students, especially in mathematics and reading.

The education and training system and basic skills could be strengthened by boosting support for disadvantaged students. Underachievement in basic skills is pronounced among disadvantaged students. In particular, the 2022 PISA shows that 15-year-old students with a migrant background face double the risk of underachievement than their native-born peers with native-born parents. Recent reforms in France, including measures focusing on the specific needs of schools in disadvantaged areas, such as the reform to halve class sizes, have the potential to reduce educational inequalities. However, their impact on learning outcomes in the medium and long term has yet to be assessed. To encourage more social diversity in schools, France has set a non-binding target to reduce social segregation in public schools by 20% by 2027. The national policy response to strengthen basic skills focuses, in particular, on the content of the educational programme. It includes reforms to increase the share of learning dedicated to basic skills and to improve the school climate, including through a recent anti-bullying plan ([14]).

A shortage of teachers and the weak attractiveness of the profession weigh on educational outcomes. The number of applicants in teachers' entry exams, across different education levels and science, technology, engineering and mathematics is falling. In addition, the rising reliance on temporary teachers negatively affects teaching quality and contributes to a deterioration in working conditions (see Annex 15). Making teacher profession more attractive will improve teaching quality, learning outcomes and help students integrate in the labour market. This can be done by improving working conditions, giving more autonomy to schools ([15]) and pedagogical freedom, strengthening mentoring programmes for new teachers and providing robust initial and continuous training that aligns with the changing needs of students, including those with a disability.

Tackling competitiveness challenges through structural reforms

Although France's public support to business research and innovation is one of the highest in the EU, business R&D intensity is below that of innovation leaders, such as Denmark and Sweden. France's public support to business R&D reached 0.45% of GDP in 2020, well above the EU average of 0.20% ([16]). However, business R&D intensity stagnated at around 1.44% of GDP between 2012 and 2022 (see Annex 11) and ranked ninth among EU countries in 2022. The evaluation of the main support instrument – the tax credit scheme (*crédit impôt recherche*) – points to positive effects on innovation output in SMEs (measured, for instance, in terms of patents and engineer staff) but no significant effects on larger firms, despite the concentration of the measure on larger firms ([17]) ([18]). However, the

([14]) 2022 PISA results show a correlation between exposure to bullying and a drop in mathematics score of 13 points.

([15]) 2023 Country Report – France, page 14.

([16]) Commission calculations. The support is a sum of tax incentives amounting to 0.28% of GDP (OECD data) and of direct support (through grants, etc.) amounting to 0.16% of GDP (Eurostat data).

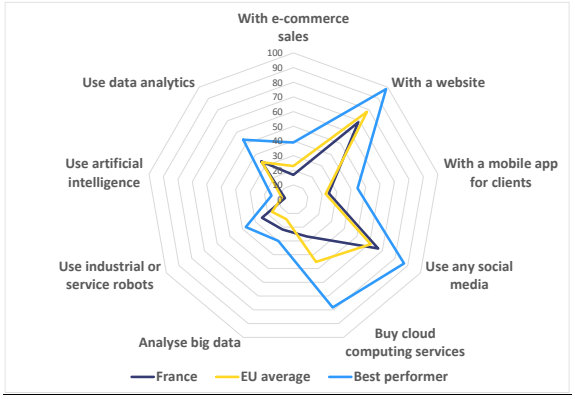
([17]) Lallement R. and M. Harfi (2021) : *Évaluation du Crédit d'impôt recherche*, Report by the National Commission for the Evaluation of Innovation Policies (CNEPI) 2021, France Stratégie, Available at: www.strategie.gouv.fr/publications/evaluation-credit-dimpot-recherche-rapport- cnepi-2021; OECD (2020), 'How effective are R&D tax incentives? New evidence from the OECD microBeRD project', Directorate for Science, Technology and Innovation Policy Note, OECD, Paris and *Conseil d'analyse économique* (2022), Focus N°090-2022 'Renforcer *l'impact du Crédit d'impôt recherche*' Philippe Aghion, Nicolas Chanut et Xavier Jaravel.

([18]) Other measures to support innovation target SMEs, such as the innovation tax credit, and the status of Young Innovative Companies (Jeunes Entreprises Innovantes), which provides social and fiscal benefits for startups meeting specific R&D intensity and growth

efficiency of R&D support schemes could be improved, including by targeting support to SMEs. Academia-business cooperation related indicators are stagnating, and attractiveness of academic careers is worsening (see Annex 11). The 2021-2030 Research Programming Law under the RRP and other announced measures are expected to enhance the efficiency of the research system, notably by strengthening the link between science and economy, and making research careers more attractive. Nevertheless, the impact of these measures needs time to materialise and to be reflected in the indicators.

The take-up of digital technologies among French businesses remains comparatively low. French firms' adoption of some advanced technologies – including artificial intelligence and cloud computing – falls short of the EU average (see Graph 3.2). Although it is increasing, the number of French SMEs with at least a basic level of digital intensity (52%) is still below the EU average (58%) and far from the Digital Decade target of 90% by 2030. The French RRP supports business digitalisation through several sub-measures under *France Num* (see Annex 10). Cohesion policy funding across all French regional programmes also provides support. Recent labour market reforms and other structural reforms may also contribute to creating framework conditions that are more conducive to R&D and ICT investment in French firms ([19]). However, it may take time for the full impact of these measures to be felt. Moreover, fostering the creation of local networks that support the spread of technologies and encourage workers to participate in ICT training could lead to companies adopting more digital technologies.

Graph 3.2: **Percentage of businesses using digital technologies**



Most recent data available: 2023 (2020 for analysis of big data and 2022 for use of robots). Best performance: e-commerce sales: Lithuania; website and cloud computing: Finland; mobile apps: Cyprus; social media and big data: Malta; robots and artificial intelligence: Denmark; data analytics: Hungary.
Source: Eurostat. Coverage: firms with more than 10 employees

Regulatory barriers are holding back productivity growth in some services sectors. Over the last two decades, labour productivity growth has been largely driven by sectors that have become more productive and have expanded their share in the French economy. This mainly applies to ICT and finance and insurance. By contrast, manufacturing and agriculture, which had experienced relatively strong productivity growth, have continued to shrink, dragging down overall productivity growth ([20]). Productivity ([21]) in professional and other services and retail trade has remained below the EU average level. It could be improved by lifting regulatory barriers (see Annex 12).

Ensuring a favourable business environment would stimulate corporate investment and competitiveness. Despite a number of dedicated reforms in recent years, including the law on accelerating and simplifying public action under the RRP, the administrative burden on businesses is still considered to be heavy: this is the case for

criteria. Support for emerging players is another key component of the France 2030 plan.

([19]) Cette, G., Lopez, J. & Mairesse, J. (2018).

([20]) The Commission's estimates for labour productivity by sector; average annual growth 2001-2020 based on data in EU KLEMS & INTANProd database, 2023 release.

([21]) Eurostat – Wage adjusted labour productivity.

49% of businesses against 33% in the EU on average. France estimates that excessive number of rules costs at least 3% of GDP per year ([22]). French businesses, in particular SMEs, could better seize opportunities provided by the single market that could fuel their growth (see Annex 12). France is preparing a new law on simplification and growth ('simplification of economic life'). In addition, a rapid implementation of the Once-Only Technical System under the Single Digital gateway will reduce the administrative burden on firms. Despite recent cuts, France's taxes on production, at 4.7% of GDP in 2022, are the second highest in the EU and well above the average of around 2.5% of GDP. Additional efforts to reduce production taxes, consistent with the overall fiscal consolidation strategy, would provide an extra boost to businesses and encourage investment.

Removing obstacles to the green transition

France missed its renewables target for 2020 and could have difficulties in meeting the new objective for 2030. There are delays in granting permits for onshore and offshore wind and solar installations. This is caused by a delay with territorial planning for designating renewables acceleration areas, inadequate planning, long and complex permitting procedures, difficulties with public acceptance and legal challenges. To achieve the targets set in the updated draft national energy and climate plan for 2030 (NECP), for solar energy (54-60 GW), a sustained increase in its deployment is needed in the coming years (from 3.5 GW in 2023 ([23]) to at least 4.8 GW per year on average). Similarly, the deployment of offshore wind needs to be accelerated by 2035, given the lead times of the projects (see Annex 7).

The recently adopted law on the acceleration of renewable energy production, part of the REPowerEU chapter of the RRP, forms the basis for deploying renewable projects more quickly. However, since the adoption of the law a year ago, almost 70% of implementing acts have yet to be adopted. A new multi-annual energy programme (*Programmation Pluriannuelle de l'Energie*) will clarify the level of political ambition for renewable energy sources (RES). However, the absence of renewable electricity targets in the 2024 draft law on energy security sends mixed signals about France's commitment to accelerating RES, creating uncertainty for investors and developers. Moreover, labour and skills shortages persist in key green transition sectors. Strengthening the development of the engineering skills needed in local authorities would also help with assessments of renewable energy projects.

To move away from fossil fuels, the share of electricity in the total energy consumption is expected to increase significantly by 2035. France could manage these growing electricity needs by relying on energy efficiency (e.g. key reforms and investments in the renovation of buildings using EU funds). In addition, the country should continue its energy sufficiency measures (to encourage changes in consumer behaviour) in the coming years. In parallel, ramping up electricity production from RES would also be needed alongside returning its existing nuclear capacity to full production. However, building additional nuclear power plants announced will take time and will not provide the required capacity in the medium term. Further investment in the electricity grids and flexibility solutions, such as storage, are needed to integrate higher volumes of RES, among other things, and ensure security of supply ([24]).

([22]) The Simplification action plan of April 2024, available at https://presse.economie.gouv.fr/plan-daction-simplification/, page 8.

([23]) https://www.rte-france.com/actualites/bilan-electrique-france-2023-nouvel-equilibre-systeme-electrique

([24]) RTE (2022), Futurs énergétiques 2050 – Rapport complet (https://rtefutursenergetiques2050.com/documents), RTE (2023) Bilan prévisionnel 2023 French power system outlook (https://assets.rte-france.com/prod/public/2023-10/2023-10-02-bilan-previsionnel-2023-principaux-resultats.pdf).

Pressure on natural resources, especially water, is building up due to droughts and intensive agriculture. France is facing the growing challenge of water scarcity. The annual investment gap for 2021-2027 for sustainable water management is estimated at EUR 4.3 billion (around 0.2% of GDP). The situation is exacerbated by diffuse pollution of water from pesticides and nitrates in fertilisers and the intensive use of water, particularly in agriculture. On 30 March 2023, France adopted 53 measures (the *Plan Eau*) to increase water efficiency, reuse treated waters, increase storage, protect and restore water ecosystems and improve governance. However, the effectiveness of these measures has yet to be assessed (see Annex 6). The shift to decarbonised energy also partly depends on the availability of water resources, in particular for hydropower and nuclear output. Moreover, France may miss its 2030 target set in the NECP for net carbon removals through land use, land-use change and forestry (LULUCF). This is due to higher tree mortality rates caused by droughts and pests as well as the higher projected volume of harvested woods.

Fossil fuel subsidies discourage the shift to alternative energy sources or investments in energy efficiency. In France, the fiscal cost of supporting fossil fuels more than tripled in 2022, compared to 2021, almost reaching EUR 28 billion (1.1% of GDP). This was mainly due to exceptional direct transfers that started in 2022 to shield consumers from a sudden increase in energy prices ([25]) (see Economic and employment snapshot). Government support for fossil fuels went mainly to petroleum products and natural gas. Significant long-standing tax expenditures are still in place, such as an excise tax refund for diesel used in road freight transport and for fuel used in agriculture ([26]). This may compromise reaching the objectives set for 2030 and 2035 in the NECP to significantly reduce emissions, especially in the transport sector. While the measures adopted during the energy crisis have been wound down, reducing the remaining subsidies and targeting them at disadvantaged groups would be warranted to preserve price signals and account for worsening poverty indicators (see Annexes 8 and 14).

To ensure that the green transition does not hamper competitiveness, businesses will have to invest and innovate. The changes to processes required by the green transition could also initially weigh on businesses due to higher production costs, especially in the construction and automotive sectors ([27]). France is supporting this shift by providing grants for investments in the decarbonisation of industries. This is in line with the country's green transition ambitions implemented partly France 2030 strategy. In the long term, the impact of the green transition on productivity will depend on relative prices and the effectiveness of innovation and investment in these areas. To support the transition from the demand side, public measures could encourage consumers to switch to less carbon-intensive consumption. These measures may include higher taxes on high carbon products and services, potential subsidies for low carbon content, and labelling that accounts for the total carbon footprint of products and services ([28]).

([25]) Data by the European Environmental Agency, at https://www.eea.europa.eu/data-and-maps/daviz/fossil-fuel-subsidy-as-a-1/#tab-chart_2

([26]) OECD (2023), 'France', in OECD Inventory of Support Measures for Fossil Fuels: Country Notes, OECD Publishing, Paris, https://doi.org/10.1787/2bf5f063-en (accessed on 11 March 2024).

([27]) J. Pisani-Ferry and S. Mahfouz (2023) find that the green transition could temporarily reduce labour productivity by a quarter of percentage point a year (Pisani-Ferry, J. and Mahfouz, S. (2023), *Les incidences économiques de l'action pour le climat*).

([28]) National Productivity Board fourth report: https://www.strategie.gouv.fr/english-articles/national-productivity-board-4th-report.

Box 4:

The mid-term review of cohesion policy funds for France

The mid-term review of cohesion policy funds is an opportunity to assess cohesion policy programmes and tackle emerging needs and challenges in EU Member States and their regions. Member States are reviewing each programme, taking into account, among other things, the challenges identified in the European Semester, including in the 2024 country-specific recommendations. This review forms the basis of a proposal by the Member State for the definitive allocation of the 15% of the EU funding included in each programme.

France has made progress in implementing cohesion policy programmes and the European Pillar of Social Rights, but challenges remain as outlined in this report, including Annexes 14 and 17. In particular, France continues to register slow growth across the country, with even negative growth in the north-eastern and eastern regions. There are also significant disparities between France's outermost and metropolitan regions as well as between urban and non-urban areas. Against this background, it is crucial to continue implementing planned priorities, paying particular attention to:

(i) making research, development and innovation activities at regional level more attractive, particularly by developing regional innovation ecosystems and strategic skills and attracting talent;

(ii) boosting businesses' digitalisation and innovation capacity, especially in regions ng in development;

(iii) moving ahead with priorities that contribute to the green transition, with a focus on producing renewables, developing smart energy systems, implementing energy efficiency measures, taking action on climate change adaptation, and ensuring the supply of drinking water, wastewater treatment and municipal waste collection and management in the outermost regions;

(iv) actively including disadvantaged groups, such as people with a migrant background;

(v) investing in upskilling and reskilling to meet labour market needs, with a focus on disadvantaged groups;

(vi) implementing anti-poverty and social inclusion measures, with particular attention on children, access to housing and preventing housing evictions.

France could benefit from the opportunities provided by the Strategic Technologies for Europe Platform (STEP) ([29]) initiative to further develop the required skills, technologies and infrastructure and stimulate industry's involvement in new strategic value chains (net-zero industry, critical raw materials, decarbonisation of energy-intensive industries).

([29]) Regulation (EU) 2024/795.

KEY FINDINGS

With its wide policy scope and substantial financial envelope, France's recovery and resilience plan (RRP) includes measures to address a series of structural challenges, in synergy with other EU funds, including cohesion policy funds, by:

- **Supporting investment in the green transition** by promoting the renovation of buildings and the decarbonisation of energy consumption, including by investing in sustainable daily mobility.

- **Fostering the green and digital transitions of industry** by supporting the modernisation and digitalisation of operations and simplifying administrative procedures.

- **Supporting participation of disadvantaged groups in the labour market.**

Continued efforts are key for a successful implementation of all the measures of France's recovery and resilience plan by August 2026.

Beyond the reforms and investments in the RRP and cohesion policy programmes, France would benefit from:

- **Putting public debt on a sustainable downward path by limiting the growth of primary spending and improving its efficiency.** Spending reviews should be complemented by an in-depth assessment of the complexity of the tax system, aiming, in particular, to raise the efficiency and reduce the cost of tax expenditures.

- **Fostering competitiveness** by strengthening business R&D intensity with better targeted support schemes; by lifting the regulatory, entry and competition barriers in services to improve their productivity; by further improving the business environment with simplified administrative procedures and reduced production taxes.

- **Taking further actions to improve employment while addressing the shortages and mismatches of skills**, strengthening activation measures and providing labour market relevant trainings.

- **Improving educational outcomes** by strengthening basic skills and addressing inequalities in education and training systems; tackling teacher shortages by making the profession more attractive, in particular by improving teachers' working conditions and the initial and continuous training.

- **Accelerating the deployment of renewable energies and related storage technologies, phasing out subsidies for fossil fuel use and ensuring continued investment in grids**, simplifying permitting procedures, strengthening relevant skills for the green transition and taking further energy sufficiency measures (to change consumers' behaviour).

- **Removing barriers to implementing the *Plan Eau*** through further measures to promote water efficiency and reduce the investment gap in the sustainable management of water.

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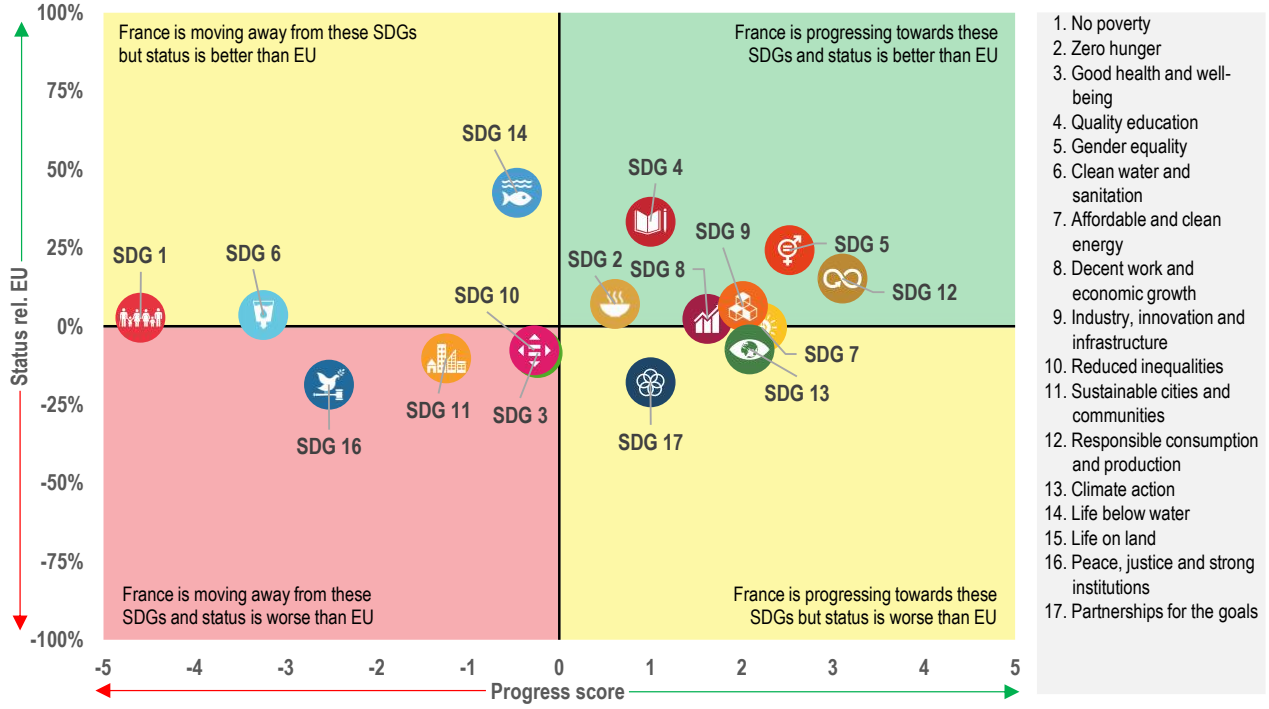
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This Annex assesses France's progress on the Sustainable Development Goals (SDGs) along the four dimensions of competitive sustainability. The 17 SDGs and their related indicators provide a policy framework under the UN's 2030 Agenda for Sustainable Development. The aim is to end all forms of poverty, fight inequalities and tackle climate change and the environmental crisis, while ensuring that no one is left behind. The EU and its Member States are committed to this historic global framework agreement and to playing an active role in maximising progress on the SDGs. The graph below is based on the EU SDG indicator set developed to monitor progress on the SDGs in an EU context.

France is improving on five SDG indicators (SDGs 2, 7, 9, 12, 13) related to *environmental sustainability*, but is moving away from the targets on three other SDGs (SDGs 6, 11, 14). It needs to catch up with the EU average on SDG 11 (Sustainable cities and communities). France has made considerable progress on SDG 12 (Responsible consumption and production) and on SDG 13 (Climate action), in particular by reducing its net greenhouse gas emissions (from 6.8 tonnes of CO_2 equivalent per capita in 2017 to 5.7 in 2022), reducing the generation of waste and reducing its material and consumption footprint. The French recovery and resilience plan (RRP) provides for large-scale investments in the green transition, such as the energy efficiency of buildings, sustainable transport and the circular economy. However, France is moving away from the targets for SDG 11 on Sustainable cities and communities and is below the EU average. Its performance is dragged down by more people suffering from severe housing deprivation (up from 2.3% in 2015 to 3.8% in 2020) and the proportion of the population living in households suffering from noise (up from 16.4% in 2015 to 20.7% in 2020). France is also moving away from the targets for SDG 6 on Clean water and sanitation and SDG 14 on Life below water but remains above the EU average. Upcoming investment in water networks is envisaged in the RRP, including in France's

Graph A1.1: **Progress towards the SDGs in France**



For detailed datasets on the various SDGs, see the annual Eurostat report 'Sustainable development in the European Union'; for details on extensive country-specific data on the short-term progress of Member States: Key findings – Sustainable development indicators - Eurostat (europa.eu). A high status does not mean that a country is close to reaching a specific SDG, but signals that it is doing better than the EU on average. The progress score is an absolute measure based on the indicator trends over the past 5 years. The calculation does not take into account any target values as most EU policy targets are only valid for the aggregate EU level. Depending on data availability for each goal, not all 17 SDGs are shown for each country.

Source: Eurostat, latest update of 25 April 2024. Data refer mainly to the period 2017-2022 or 2018-2023. Data on SDGs may vary across the report and its annexes due to different cut-off dates.

overseas departments.

France is improving on most SDG indicators related to *fairness* (SDGs 3, 4, 5, 7, 8), but is moving away from the goals on SDG 1 (No poverty) and SDG 10 (Reduced inequalities). In addition, France needs to catch up with the EU average on SDGs 3, 7 and 10. Some indicators linked to quality education (SDG 4) are improving, such as the lower rate of early leavers from education and training (from 8.8% of the population aged 18-24 in 2017 to 7.6% in 2023) and the higher tertiary educational attainment (from 47% of the population aged 25-34 in 2018 to 51.9% in 2023). However, these global indicators do not capture some specific issues encountered in the French education system, such as the persisting influence of socio-economic background on educational outcomes and peculiarities relating to some vulnerable groups (see Further priorities ahead). There is also a worrying downward trend on some basic education indicators, with 26.9% of 15-year-old students with low achievement in reading in 2022 (in line with the EU average, which is following the same trend) compared to 20.9% in 2018. France is moving away from the targets for SDG 1 (No poverty), with more people at risk of poverty or social exclusion (rising from 17.8% of the population in 2017 to 21% in 2022) or living in households with very low work intensity (from 7.7% in 2017 to 9.9% in 2022). Inequalities (SDG 10) are increasing, and France needs to catch up with the EU average on indicators such as the urban-rural gap for risk of poverty or social exclusion. This indicator has risen from 3.7 pp. of difference in the percentage of population in 2017 to a 9.3 pp. difference in 2022 (EU average in 2022: 0.4 pp. difference). While France's performance on SDG 3 (Good health and well-being) slightly improved overall in the 5 years between 2017 and 2022, it needs to catch up with the EU average in this area.

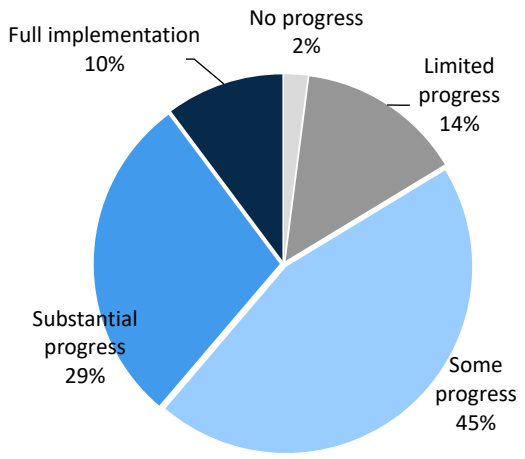
France is improving and performs well on all SDGs on *productivity* (SDGs 4, 8, 9). On SDG 8 (Decent work and economic growth), France increased its investment rate to 25.2% of GDP in 2022, above the EU average of 22.9%. In addition, the share of young people not in education, employment or training decreased between 2018 and 2023 (from 12.9% of the population aged 15-29 to 12.3%) as did the long-term unemployment rate (from 2.5% of the active population to 1.8%). Nevertheless, the number of fatal accidents at work rose in 2021 to 3.32 accidents per 100 000 workers, well above the EU average of 1.76. While close to the EU average, the SDG 9-related indicators are somewhat stagnating. These include gross domestic expenditure on R&D and R&D personnel (2.2% of GDP in 2017 vs 2.18% in 2022, and 1.5% of the active population in 2017 vs 1.71% in 2022). A notable exception is the significant improvement in the share of households with high-speed internet connection (28.3% of households in 2017 vs 73.3% in 2022) in line with the EU average. The French RRP includes several measures supporting R&D investments in digital technologies and green transition, strengthening R&D projects of innovative businesses, and preserving R&D employment. However, barriers to improve productivity growth in France remain (see Further priorities ahead).

France is improving on SDG indicators related to *macroeconomic stability* (SDGs 8 and 17) but moving away from the goals on SDG 16 (Peace, justice and strong institutions). In addition, it still needs to catch up with the EU average on SDGs 16 and 17. While France made progress on SDG 17, indicators relating to SDG 16 worsened, with both remaining below the EU average. Victims of human trafficking increased to 3 per 100 000 in 2022, above the EU average of 2.3. In 2023, while 53% of the population (down from 58% in 2018) had very or fairly good perception of the independence of the justice system. Nevertheless, the percentage of the population reporting crime, violence or vandalism rose significantly, in contrast with the falling EU average (in France, the figure rose from 14.2% of the population in 2015 to 17.7% in 2020, vs a decline in the EU from 13.2% to 10.7%). In terms of global partnership, France increased its financing to developing countries (EUR 21 847 mln in 2017 vs EUR 23 844 mln in 2022) and its imports from these countries (EUR 90 726 mln in 2018 vs EUR 122 685 mln in 2023). However, levels remain well below the EU average. The general government gross debt has increased to 110.6% of GDP in 2023, which is significantly higher than the EU average of 81.6%.

As the SDGs form an overarching framework, any links to relevant SDGs are either explained or depicted with icons in the other annexes.

The Commission has assessed the 2019-2023 country-specific recommendations (CSRs) ([30]) addressed to France as part of the European Semester. These recommendations concern a wide range of policy areas that are related to 11 of the 17 Sustainable Development Goals (see Annexes 1 and 3). The assessment considers the policy action taken by France to date ([31]) and the commitments in its recovery and resilience plan (RRP) ([32]). At this stage of RRP implementation, 84% of the CSRs focusing on structural issues from 2019-2023 have recorded at least 'some progress', while 14% recorded 'limited progress' (see Graph A2.1). As the RRP is implemented further, considerable progress in addressing structural CSRs is expected in the years to come.

Graph A2.1: **France's progress on the 2019-2023 CSRs (2024 European Semester)**



Source: European Commission

([30]) 2023 CSRs : EUR-Lex - 32023H0901(10) - EN - EUR-Lex (europa.eu)

2022 CSRs: EUR-Lex - 32022H0901(10) - EN - EUR-Lex (europa.eu)

2021 CSRs: EUR-Lex - 32021H0729(10) - EN - EUR-Lex (europa.eu)
2020 CSRs: EUR-Lex - 32020H0826(10) - EN - EUR-Lex (europa.eu)
2019 CSRs: EUR-Lex - 32019H0905(10) - EN - EUR-Lex (europa.eu)

([31]) Including policy action reported in the national reform programme and in Recovery and Resilience Facility (RRF) reporting (twice a year reporting on progress in implementing milestones and targets and resulting from the payment requests assessment).

([32]) Member States were asked to effectively address in their RRPs all or a significant subset of the relevant country-specific recommendations issued by the Council. The CSR assessment presented here considers the degree of implementation of the measures included in the RRP and of those carried out outside of the RRP at the time of assessment. Measures laid down in the Annex of the adopted Council Implementing Decision on approving the assessment of the RRP, which are not yet adopted or implemented but considered credibly announced, in line with the CSR assessment methodology, warrant 'limited progress'. These measures. Once implemented, these measures can lead to 'some/substantial progress or full implementation', depending on their relevance.

Table A2.1: **Summary table on 2019-2023 CSRs**

France	Assessment in May 2024*	RRP coverage of CSRs until 2026**	Revelant SDGs
2019 CSR 1	**Limited Progress**		
Ensure that the nominal growth rate of net primary expenditure does not exceed 1,2 % in 2020, corresponding to an annual structural adjustment of 0,6 % of GDP.	Not relevant anymore	Not applicable	SDG 8, 16
Use windfalls gains to accelerate the reduction of the general government debt ratio.	Not relevant anymore	Not applicable	SDG 8, 16
Achieve expenditure savings and efficiency gains across all sub-sectors of the government, including by fully specifying and monitoring the implementation of the concrete measures needed in the context of Public Action 2022.	No Progress	Relevant RRP measures being implemented as of 2022 and 2023	SDG 8, 16
Reform the pension system to progressively unify the rules of the different pension regimes, with the view to enhance their fairness and sustainability.	Substantial Progress		SDG 8
2019 CSR 2	**Some Progress**		
Foster labour market integration for all job seekers, ensure equal opportunities with a particular focus on vulnerable groups including people with a migrant background	Some Progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 8, 10
and address skills shortages and mismatches.	Some Progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 4
2019 CSR 3	**Substantial Progress**		
Focus investment-related economic policy on research and innovation (while improving the efficiency of public support schemes, including knowledge transfer schemes),	Substantial Progress	Relevant RRP measures being implemented as of 2021, 2022 and 2023	SDG 9, 10, 11
renewable energy, energy efficiency and interconnections with the rest of the Union,	Some Progress	Relevant RRP measures being implemented as of 2021, 2022, 2023 and planned as of 2025	SDG 7, 9, 10, 11, 13
and on digital infrastructure, taking into account territorial disparities.	Substantial Progress	Relevant RRP measures being implemented as of 2022	SDG 9, 10, 11
2019 CSR 4	**Substantial Progress**		
Continue to simplify the tax system, in particular by limiting the use of tax expenditures, further removing inefficient taxes and reducing taxes on production.	Substantial Progress		SDG 8, 9, 10, 12
Reduce regulatory restrictions, in particular in the services sector,	Limited Progress	Relevant RRP measures being implemented as of 2022	SDG 8, 9
and fully implement the measures to foster the growth of firms.	Full Implementation	Not applicable	SDG 8, 9
2020 CSR 1	**Substantial Progress**		
In line with the general escape clause, take all necessary measures to effectively address the pandemic, sustain the economy and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.	Not relevant anymore	Not applicable	SDG 8, 16
Strengthen the resilience of the health system by ensuring adequate supplies of critical medical products and a balanced distribution of health workers, and by investing in e-Health.	Substantial Progress	Relevant RRP measures being implemented as of 2022, 2023 and planned as of 2024	SDG 3
2020 CSR 2	**Substantial Progress**		
Mitigate the employment and social impact of the crisis,	Substantial progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 1, 2, 8, 10
including by promoting skills	Substantial progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 4
and active support for all jobseekers.	Some progress	Relevant RRP measures being implemented as of 2022	SDG 8
2020 CSR 3	**Substantial Progress**		
Ensure the effective implementation of measures supporting the liquidity of firms, in particular for small and medium-sized enterprises.	Full Implementation		SDG 8, 9
Front-load mature public investment projects	Substantial Progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 8, 16
and promote private investment to foster the economic recovery.	Substantial Progress	Relevant RRP measures being implemented as of 2021, 2022 and 2023	SDG 8, 9
Focus investment on the green and digital transition, in particular on sustainable transport,	Substantial Progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 11
clean and efficient production and use of energy,	Some Progress	Relevant RRP measures being implemented as of 2021, 2022 and 2023 and planned as of 2025	SDG 7, 9, 13
energy (infrastructures)	Some Progress	Relevant RRP measures being implemented as of 2021 and planned as of 2023	SDG 7, 9, 13
and digital infrastructures	Substantial Progress	Relevant RRP measures being planned as of 2022	SDG 9
as well as research and innovation.	Substantial Progress	Relevant RRP measures being implemented as of 2021 and 2022	SDG 9

(Continued on the next page)

Table (continued)

2020 CSR 4	**Some Progress**		
Continue to improve the regulatory environment,	Limited Progress	Relevant RRP measures being implemented as of 2022	SDG 8, 9
reduce administrative burdens for firms	Some Progress	Relevant RRP measures being implemented as of 2022	SDG 8, 9
and simplify the tax system.	Substantial Progress		SDG 8, 9, 10, 12
2021 CSR 1	**Not relevant anymore**		
In 2022, use the Recovery and Resilience Facility to finance additional investment in support of the recovery while pursuing a prudent fiscal policy. Preserve nationally financed investment.	Not relevant anymore	Not applicable	SDG 8, 16
When economic conditions allow, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions and ensuring fiscal sustainability in the medium term.	Not relevant anymore	Not applicable	SDG 8, 16
At the same time, enhance investment to boost growth potential. *Pay particular attention to the composition of public finances, on both the revenue and expenditure sides of the budget, and to the quality of budgetary measures in order to ensure a sustainable and inclusive recovery. Prioritise sustainable and growth-enhancing investment, in particular investment supporting the green and digital transition.*	Not relevant anymore	Not applicable	SDG 8, 16
Give priority to fiscal structural reforms that will help provide financing for public policy priorities and contribute to the long-term sustainability of public finances, including, where relevant, by strengthening the coverage, adequacy and sustainability of health and social protection systems for all.	Not relevant anymore	Not applicable	SDG 8, 16
2022 CSR 1	**Some Progress**		
In 2023, ensure prudent fiscal policy, in particular by limiting the growth of nationally financed primary current expenditure below medium-term potential output growth, taking into account continued temporary and targeted support to households and firms most vulnerable to energy price hikes and to people fleeing Ukraine. Stand ready to adjust current spending to the evolving situation.	Full Implementation	Not applicable	SDG 8, 16
Expand public investment for the green and digital transitions, and for energy security taking into account the REPowerEU initiative, including by making use of the Recovery and Resilience Facility and other Union funds.	Substantial Progress	Not applicable	SDG 8, 16
For the period beyond 2023, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions and ensuring credible and gradual debt reduction and fiscal sustainability in the medium term through gradual consolidation, investment and reforms.	Limited Progress	Not applicable	SDG 8, 16
Reform the pension system to progressively unify the rules of the different pension regimes to enhance its fairness while underpinning its sustainability.	Substantial Progress		SDG 8
2022 CSR 2			
Proceed with the implementation of its recovery and resilience plan, in line with the milestones and targets included in the Council Implementing Decision of 13 July 2021.	RRP implementation is monitored by assessing RRP payment requests and analysing reports published twice a year on the achievement of the milestones and targets. These are to be reflected in the country reports.		
Swiftly finalise the negotiations with the Commission of the 2021-2027 cohesion policy programming documents with a view to starting their implementation.	Progress on the cohesion policy programming documents is monitored under the EU cohesion policy.		
2022 CSR 3	**Some Progress**		
Address the shortage of skills by raising the share of people with basic skills, providing additional work-based learning options and	Some Progress	Relevant RRP measures being implemented as of 2021 and 2023	SDG 4
improving the learning outcomes of all students, in particular by adapting resources and methods to the needs of disadvantaged students and schools	Limited Progress	Relevant RRP measures being implemented as of 2022 and 2023	SDG 4, 8, 10
and by improving the working conditions and continuous training of teachers.	Some Progress	Relevant RRP measures being implemented as of 2022	SDG 4
2022 CSR 4	**Limited Progress**		
Reduce overall reliance on fossil fuels.	Limited Progress	Relevant RRP measures being implemented as of 2021, 2022 and 2023 and planned as of 2025	SDG 7, 9, 13
Accelerate the deployment of utility-scale and decentralised renewable energies through increased public investment and by facilitating private investment, including by further streamlining permitting procedures and ensuring adequate staffing of authorising administrations.	Limited Progress	Relevant RRP measures being implemented as of 2022 and 2023	SDG 7, 8, 9, 13
Improve the policy framework to incentivise the deep renovation of buildings.	Limited Progress	Relevant RRP measures being implemented as of 2022	SDG 7, 8, 9
Expand energy interconnection capacity.	Some Progress		SDG 7, 9, 13

(Continued on the next page)

Table (continued)

2023 CSR 1	**Substantial Progress**		
Wind down the emergency energy support measures in force, using the related savings to reduce the government deficit, as soon as possible in 2023 and 2024. Should renewed energy price increases necessitate new or continued support measures, ensure that these are targeted at protecting vulnerable households and firms, fiscally affordable, and preserve incentives for energy savings.	Full Implementation	Not applicable	SDG 8, 16
Ensure prudent fiscal policy, in particular by limiting the nominal increase in nationally financed net primary expenditure in 2024 to not more than 2.3%.	Full Implementation	Not applicable	SDG 8, 16
Preserve nationally financed public investment and ensure the effective absorption of RRF grants and other EU funds, in particular to foster the green and digital transitions.	Full Implementation	Not applicable	SDG 8, 16
For the period beyond 2024, continue to pursue a medium-term fiscal strategy of gradual and sustainable consolidation, combined with investments and reforms conducive to higher sustainable growth, to achieve a prudent medium-term fiscal position.	Limited Progress	Relevant RRP measures being implemented as of 2021	SDG 8, 16
Further improve framework conditions to facilitate investment and innovation.	Some Progress	Relevant RRP measures being implemented as of 2022	SDG 8, 16
2023 CSR 2			
Proceed with the steady implementation of its recovery and resilience plan and, following the recent submission of the addendum, including the REPowerEU chapter, rapidly start the implementation of the related measures. Proceed with the swift implementation of cohesion policy programmes, in close complementarity and synergy with the recovery and resilience plan.	RRP implementation is monitored by assessing RRP payment requests and analysing reports published twice a year on the achievement of the milestones and targets. These are to be reflected in the country reports. Progress on the cohesion policy programming documents is monitored under the EU cohesion policy.		
2023 CSR 3	**Some Progress**		
Address the shortage of skills, in particular by providing additional work-based learning options and raising the share of people with basic skills.	Some Progress	Relevant RRP measures being implemented as of 2021, 2022 and 2023	SDG 4
Adapt resources and methods to the needs of disadvantaged students and schools in order to make the education and training system more equitable and inclusive.	Some Progress	Relevant RRP measures being implemented as of 2022 and 2023	SDG 4, 8, 10
Improve the working conditions and initial and continuous training for teachers.	Limited Progress	Relevant RRP measures being implemented as of 2022	SDG 4, 8, 10
2023 CSR 4	**Some Progress**		
Reduce overall reliance on fossil fuels.	Some Progress	Relevant RRP measures being implemented as of 2021, 2022 and 2023 and planned as of 2025	SDG 7, 9, 13
Accelerate the deployment of renewable energies, focusing in particular on wind, solar and geothermal sources and biogas, including through small-scale renewable energy production and the promotion of collective self-consumption, and promote related storage technologies, through increased public investment, by facilitating private investment, and addressing permitting bottlenecks.	Limited Progress	Relevant RRP measures being implemented as of 2022 and 2023 and planned as of 2025	SDG 7, 9, 13
Further upgrade electricity transmission and distribution grids.	Some Progress	Relevant RRP measures being implemented as of 2023	SGD 7,9, 13
Increase cross-border electricity interconnections.	Some Progress		SGD 7,9, 13
Further improve the policy framework to incentivise the deep renovation of buildings and the decarbonisation of heating systems, with a particular focus on low-income households and on building stock with the lowest energy performance.	Some Progress	Relevant RRP measures being implemented as of 2021 and 2022	SGD 7,9, 13
Build a supporting regulatory environment to increase investment in clean-tech manufacturing, including by simplifying and speeding up permitting.	Substantial Progress	Relevant RRP measures being implemented as of 2022	SGD 7,9, 13
Step up policy efforts aimed at the provision and acquisition of skills and competences needed for the green transition.	Some Progress		SGD 7,9, 13

Note:

* See footnote ([30]).

** RRP measures included in this table contribute to the implementation of CSRs. Nevertheless, additional measures outside the RRP are necessary to fully implement CSRs and address their underlying challenges. Measures indicated as 'being implemented' are only those included in the RRF payment requests submitted and positively assessed by the European Commission.

Source: European Commission

This Annex provides a snapshot of France's implementation of its recovery and resilience plan (RRP), past the mid-way point of the Recovery and Resilience Facility's (RRF) lifetime. The RRF has proven central to the EU's recovery from the COVID-19 pandemic, helping speed up the twin green and digital transition, while adapting to geopolitical and economic developments, and strengthening resilience against future shocks. The RRF is also helping implement the UN Sustainable Development Goals and address the country-specific recommendations (see Annex 2).

The RRP paves the way for disbursing up to EUR 40.3 billion in grants under the RRF over the 2021-2026 period, representing 1.4% of France's GDP ([33]). As of mid-May 2024, EUR 23.4 billion have been disbursed to France under the RRF.

France still has EUR 16.9 billion available in grants from the RRF. This will be disbursed after the assessment of the future fulfilment of the remaining 93 milestones and targets ([34]) included in the Council Implementing Decision ([35]) (CID), ahead of the 2026 deadline established for the RRF.

France's progress in implementing its plan is recorded in the Recovery and Resilience Scoreboard ([36]). The scoreboard gives an overview of the progress made in implementing the RRF as a whole. Graph A3.1 shows the current state of play as reflected on the Scoreboard.

Table A3.1: **Key facts of the French RRP**

Initial plan CID adoption date	13 July 2021
Scope	Revised plan with REPowerEU chapter
Last major revision	17 October 2023
Total allocation	EUR 40.3 billion in grants (1.4% of 2023 GDP)
Investments and reforms	73 investments and 24 reforms
Total number of milestones and targets	181
Fulfilled milestones and targets	93 (51.4% of total)

Source: RRF Scoreboard

France's RRP includes a REPowerEU chapter to phase out its dependency on Russian fossil fuels, diversify its energy supplies and produce more clean energy in the coming years. To kick-start the REPowerEU chapter's implementation, EUR 564.3 million was disbursed as pre-financing on 13 December 2023. This helped launch relevant reforms like accelerating the deployment of renewable energy projects through streamlined permitting procedures.

The plan has a strong focus on the green transition, dedicating 49.5% of the available funds to measures that support climate objectives and 21.6% of its total allocation to support the digital transition. It also retains a strong social dimension with social protection measures, especially related to education, unemployment, or skills mismatches. Table A3.2 highlights some relevant measures achieved so far, and some that will be implemented before 2026 to keep making France's economy greener, more digital, inclusive, and resilient.

([33]) GDP information is based on 2023 data. Source: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html?lang=en

([34]) A milestone or target is satisfactorily fulfilled once a Member State has provided evidence to the Commission that it has reached the milestone or target and the Commission has assessed it positively in an implementing decision.

([35]) https://data.consilium.europa.eu/doc/document/ST-10162-2021-ADD-1/en/pdf

([36]) https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/country_overview.html

Table A3.2: **Measures in France's RRP**

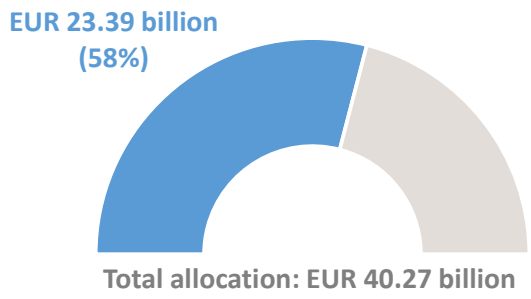
Reforms and investments implemented
• Reform of the unemployment insurance • Renovation of 800 healthcare institutions • Law on the acceleration of renewable energy production
Upcoming reforms and investments
• Investment to increase governmental cybersecurity • Improving standards for digital health • Implementation of an Important Project of Common European Interest (IPCEI) on hydrogen

Source: FENIX

With two payment requests completed, France's implementation of its RRP is well underway. The Commission gave a positive assessment of France's first payment request, taking into account the opinion of the Economic and Financial Committee. This led to EUR 7.4 billion being disbursed in financial support on 4 March 2022 ([37]). The related 38 milestones covered reforms and investments in the areas of public finance, housing, mobility, unemployment insurance, skills, and health, as well as France's audit and control system for the implementation of the RRF.

The most recent payment request, which the Commission assessed positively on 17 November 2023, led to the disbursement of EUR 10.3 billion on 22 December 2023. The disbursement reflected the positive assessment of 55 milestones and targets covering the promulgation of the Law on climate and resilience and the entry into force of the Decree implementing the anti-waste and circular economy Law, the implementation of the Research Programming Law as well as the adoption of several legal measures aimed at strengthening the efficiency of public services and ensuring the quality and sustainability of public spending.

Graph A3.1: **Total grants disbursed under the RRF**



Note: This graph displays the amount of grants, including pre-financing, disbursed so far under the RRF. Grants are non-repayable financial contributions. The total amount of grants given to each Member State is determined by an allocation key and the total estimated cost of the respective RRP.
Source: RRF Scoreboard

As of 15 May 2024, the Commission has adopted a preliminary assessment of France's third payment request, with a disbursement of EUR 7.5 billion expected in June. The third payment request concerns 39 milestones and targets, among which REPowerEU measures, including reforms related to the acceleration of renewable energy production, the implementation of the Research Programming Law and the setting up of the Secretariat General for Ecological Planning. The payment request also covers investments in the energy renovation of public and private buildings, the decarbonisation of industry, improving connectivity, supporting railways and the electrification of harbour docks.

([37]) When requested payments are disbursed, the pre-financing is cleared proportionally. The net amounts are quoted here.

EU funding instruments provide considerable resources for recovery and growth to the EU Member States. In addition to the EUR 40.3 billion of Recovery and Resilience Facility (RRF) funding described in Annex 3, EU cohesion policy funds ([38]) provide EUR 16.8 billion to France for the 2021-2027 period ([39]). Support from these two instruments combined represents around 2.04% of the country's 2023 GDP, less than the EU average of 5.38% of GDP ([40]). Cohesion policy supports regional development, economic, social and territorial convergence and competitiveness through long-term investment in line with EU priorities and with national and regional strategies.

During the 2014-2020 programming period, cohesion policy funds boosted France's competitiveness, with tangible achievements notably in research and innovation, energy efficiency and social inclusion. Over the whole period, which financed investments until December 2023, cohesion policy funds ([41]) made EUR 18.7 billion available to France ([42]), of which EUR 10.6 billion has been disbursed since March 2020, when the COVID-19 pandemic began ([43]). The achievements of cohesion policy funds over the programming period include support for research and innovation infrastructure and projects, with 23 000 researchers working in improved research infrastructure facilities and support to almost 163 000 SMEs, mainly to foster innovation, digitalisation and competitiveness. The European Regional Development Fund (ERDF) also supported a decrease of 58 899 169 kWh/year in the annual primary energy consumption of public buildings. By the end of 2022, over 6.4 million people had received support under the European Social Fund (ESF) and the Youth Employment Initiative in metropolitan France. These measures provided support for the most vulnerable, with almost one in two recipients being low-qualified and some 30% having a migrant background.

In the current programming period, cohesion policy will provide a further boost to France's competitiveness, to the green transition and to social cohesion, improving the living and working conditions of France's people. In 2021-2027, the European Regional Development Fund (ERDF) will boost innovation and digitalisation by supporting over 11 700 businesses. Significant investments in the green transition will enable a 20% decrease in the final energy consumption of public buildings by 2030 compared to the 2012 benchmark. France will also reduce greenhouse emissions by 263 314 tonnes CO_2 eq. a year thanks to support from the Just Transition Fund (JTF). The JTF will also fund human capital investments, notably by upskilling and reskilling workers and jobseekers for work in green sectors. The European Social Fund Plus (ESF+) will help boost skills development with a budget of around EUR 1.6 billion in France. The main areas of ESF+ support in this field will include supporting access to training for the unemployed, supporting career transitions, and promoting life-long learning for some 600 000 recipients. With this work, cohesion policy substantially contributes to achieving the UN Sustainable Development Goals (SDGs) in France, in particular SDG 8 (Decent work and economic growth), SDG 1 (No poverty) and SDG 9 (Industry, innovation, infrastructure).

Through combined action, cohesion policy and the recovery and resilience plan (RRP) have a mutually reinforcing impact in France. For instance, the ERDF allocates over EUR 830 million to support the extensive nationwide plan to make energy efficiency renovations, expected to fund energy performance improvements for about 100 000 social housing units. The ERDF interventions primarily focus on high environmental performance renovations, complementing the RRF which focuses on heavy restructuring with an energy renovation component. Together, cohesion policy and the RRP also support the development of sustainable mobility. The ERDF co-finances cycling and pedestrian infrastructure, secure bike parking, bike

([38]) In 2021-2027, cohesion policy funds include the European Regional Development Fund, the European Social Fund Plus and the Just Transition Fund.

([39]) European territorial cooperation (ETC) programmes are excluded from the figure. In 2021-2027, the total investment, including national financing, amounts to EUR 29.0 billion.

([40]) RRF funding includes both grants and loans, where applicable. The EU average is calculated for cohesion policy funds excluding ETC programmes. GDP figures are based on Eurostat data for 2022.

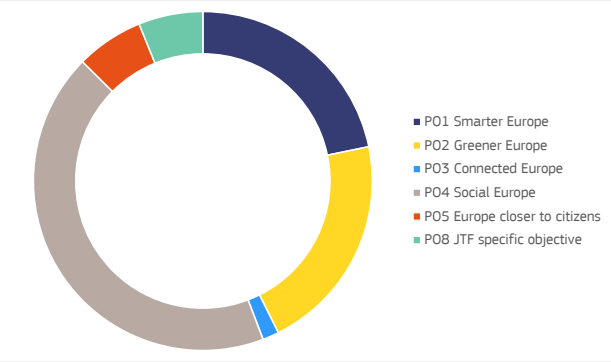
([41]) In 2014-2020, cohesion policy funds included the European Regional Development Fund, the European Social Fund and the Youth Employment Initiative. REACT-EU allocations are included but ETC programmes are excluded.

([42]) In 2014-2020, the total investment, including national financing, amounted to EUR 32.3 billion.

([43]) Cut-off date: 14 May 2024.

self-service stations, as well as actions to raise awareness and promote soft modes of transport, encourage car limitation and pooling. The RRP focuses on sustainable transport through a range of investments, including major investments to modernise the rail infrastructure. Regarding investments in skills, the RRP supports projects to grant subsidies for business to hire apprentice workers and work-study contracts while the ESF+ supports academic and career guidance. The contribution of cohesion policy and RRP funding by policy objective is illustrated by Graphs A4.1 and A4.2.

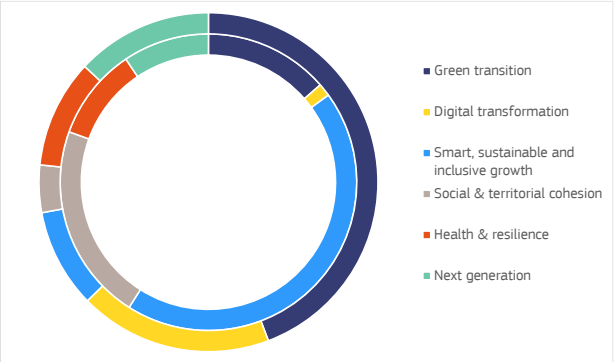
Graph A4.1: **Distribution of cohesion policy funding across policy objectives in France**



Source: European Commission

The Technical Support Instrument (TSI) helps France invest in its public administration and create a better enabling environment for EU and national investment. The TSI has funded projects in France to design and implement growth-enhancing reforms since 2017. The support provided in 2023 included action to roll out programmes under direct and indirect management in France's outermost regions, and to improve the energy performance of public buildings. In addition, the TSI contributed to reforms and investments planned in France's RRP, such as public service reforms. It also supported general implementation of the plan by assisting with risk mapping and the design of tools to detect and prevent double-funding.

Graph A4.2: **Distribution of RRF funding by pillar in France**



(1) Each RRP measure helps achieve the aims of two of the six policy pillars of the RRF. The primary contribution is shown in the outer circle while the secondary contribution is shown in the inner circle. Each contribution represents 100% of the RRF funds. Therefore, the total contribution to all pillars displayed on this chart amounts to 200% of the RRF funds allocated to France.

Source: European Commission

France also receives funding from several other EU instruments, including those listed in Table A4.1.

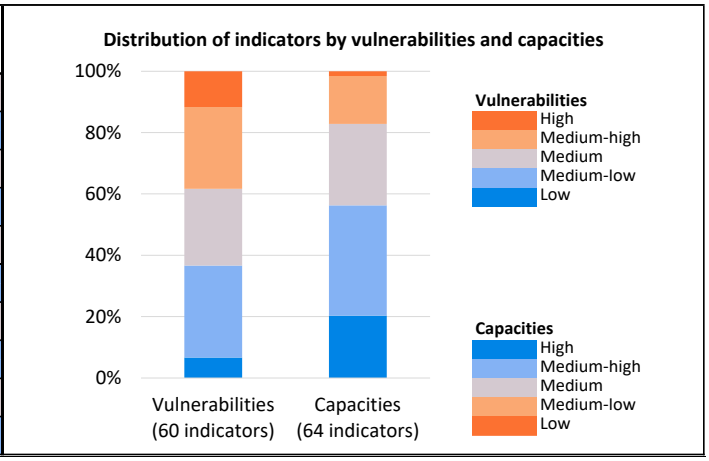
Table A4.1: **Support from EU instruments in France**

EU grants		
	Amount 2014-2020 (EUR million)	Amount 2021-2027 (EUR million)
Cohesion policy	18 746.8	16 775.0
RRF grants (1)	-	40 269.9
Public sector loan facility (grant component) (2)	-	78.1
Common agricultural policy (3)	81 400.0	45 629.0
EMFF/EMFAF (4)	588.0	567.1
Connecting Europe Facility (5)	2 492.1	1 076.0
Horizon 2020 / Horizon Europe (6)	7 443.1	3 620.1
LIFE programme (7)	223.8	204.6
EU guarantees		
	EU Guarantee (EUR million)	Volume of operations (EUR million)
European Fund for Strategic Investment 2015-2020 (8)	4 882.0	13 878.3
InvestEU 2021-2027 (9)	496.8	1 950.9

(1) RRF implementation period is 2021-2026.
(2) The public sector loan facility's programming period is 2021-2025 and the amount reflects the national share in its grant component reserved until the end of the period.
(3) Common agricultural policy programming periods are 2014-2022 and 2023-2027.
(4) EMFF – European Maritime and Fisheries Fund, EMFAF – European Maritime, Fisheries and Aquaculture Fund.
(5) Data on the Connecting Europe Facility covers transport and energy and has a cut-off date of 15 May 2024.
(6) Data on Horizon Europe (2021-2027) has a cut-off date of 13 May 2024.
(7) 2021-2027 data on the LIFE programme has a cut-off date of 15 May 2024.
(8) The amount of the EU guarantee signed under the EFSI Infrastructure and Innovation Window was derived based on the signed amount of the operations and the average internal multiplier, as reported by the EIB (cut-off date is 31 December 2023).
(9) The amount of the EU guarantee and of the volume of operations signed under InvestEU includes the EU compartment as well as the Member State compartments (cut-off date is 31 December 2023).
Source: European Commission

Table A5.1: **Resilience indices across dimensions for France and the EU-27**

Dimension		FR 2023 RDB	FR 2024 RDB	EU-27 2024 RDB
Overall resilience	Vulnerabilities			
	Capacities			
Social and economic	Vulnerabilities			
	Capacities			
Green	Vulnerabilities			
	Capacities			
Digital	Vulnerabilities			
	Capacities			
Geopolitical	Vulnerabilities			
	Capacities			



(1) The synthetic indices aggregate the relative resilience situation of countries across all considered indicators. For an indicator, each country's relative situation in the latest available year is compared with the collection of values of that indicator for all Member States and all years in the reference period.
Source: Resilience Dashboards - version spring 2024, data up to 2022

This Annex uses the Commission's resilience dashboards (RDB) ([44]) to show France's relative resilience capacities and vulnerabilities ([45]) that may be of relevance for societal, economic, digital, and green transformations, and for dealing with future shocks and geopolitical challenges ([46]).

According to the RDB's set of resilience indicators, France has, generally speaking, medium vulnerabilities, similar to the rest of the EU, and similar – medium-high – capacities overall. This is reflected in the distribution of indicators, with around 40% of vulnerability indicators medium-low and low, and over 50% of capacity indicators medium-high and high.

In the social and economic dimension, France has medium vulnerabilities and medium-high capacities. Its relatively high vulnerabilities are due to its relatively high government debt, increased antimicrobial resistance and more people's reporting unmet needs for medical care. It has relatively strong capacities, with well-developed early childhood care for children under 3, and relatively high government expenditure on education, health and social protection.

In the green dimension, France increased its vulnerabilities but its capacities remained medium-high. Fatalities from extreme climate events and energy use in information and communication technology (ICT) remain high. On capacities, France performs particularly well on the use of circular materials and resource productivity, but CO_2 absorption by forests remains low.

France's vulnerabilities in the digital dimension have increased to medium-high, but its capacities have remained medium-high. Vulnerabilities of particular concern are related to cybersecurity and the inadequacy of ICT training for teachers. On capacities, the use of social networks remains the lowest in the EU.

In the geopolitical dimension, France has medium capacities and medium-low vulnerabilities. It has medium-high vulnerabilities, with the economy's borrowing

([44]) Https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight/2020-strategic-foresight-report/resilience-dashboards_en. Resilience is defined as the ability not only to withstand and cope with challenges but also to undergo transitions, in a sustainable, fair, and democratic manner. 2020 Strategic Foresight Report: *Charting the course towards a more resilient Europe* (COM(2020) 493).

([45]) Vulnerabilities describe features that can exacerbate the negative impact of crises and transitions, or obstacles that may hinder the achievement of long-term strategic goals, while capacities refer to enablers or abilities to cope with crises and structural changes and to manage transitions.

([46]) This Annex is linked to Annex 1 on SDGs, Annex 6 on the green deal, Annex 8 on the fair transition to climate neutrality, Annex 9 on resource productivity, efficiency and circularity, Annex 10 on the digital transition and Annex 14 on the European pillar of social rights.

needs now surpassing its lending ([47]) and the employment gap (EU vs non-EU nationals) widening. It has lower vulnerabilities than the EU, in fertility rates for example. It would do well to improve its trade openness (intra and extra EU) capacities, as well as its trade in energy and recyclable raw materials.

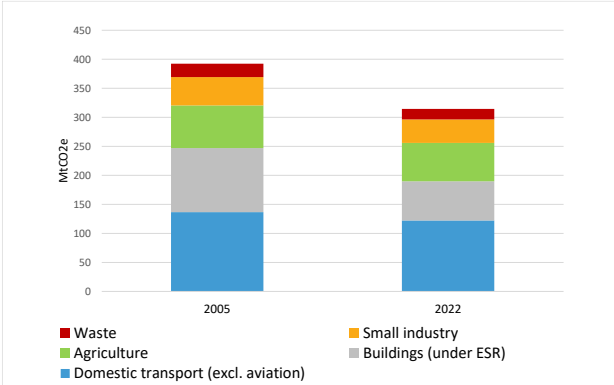
([47]) Net lending (lending-borrowing) over GDP decreased.

France has made progress in the green transition, with more action needed in several areas, such as on sustainable water management and increasing its carbon sinks in the land-use sector. This Annex provides a snapshot of climate, energy, and environmental aspects of the transition in France ([48]).

France's draft updated national energy and climate plan (NECP) lacks sufficient information on the investment needs to achieve its 2030 climate and energy targets. The plan estimates the difference between additional green investments and the avoided investments in fossil fuel energy systems, but the information provided is insufficient. It also lacks a breakdown by Energy Union dimension and by sector. The draft plan provides some information on the sources of funding for some measures, but not consistently for all measures. It does not distinguish between public and private-sector sources, nor specify the timespan of the measures or funding shares from the EU budget, in particular the Recovery and Resilience Facility and Cohesion Fund contributions. The information provided does not make it possible to identify potential funding gaps ([49]). Additionally, the draft updated NECP is not fully aligned with the coal power plants phase-out timeline outlined in the Territorial Just Transition Plans (TJTP). The final updated NECP should ensure such alignment.

Even including the planned measures that are yet to be adopted, France still has a small gap to close to reach its 2030 effort sharing target ([50]). France's 2022 greenhouse gas emissions from its effort sharing sectors are expected to come in at 21.6% below 2005 levels. Current policies are projected to reduce France's effort sharing emissions by 24.4% from 2005 levels by 2030. The additional policies planned in France's draft updated NECP are projected to reduce these emissions by 46.4% from 2005 levels, falling 1.1 percentage points short of France's effort sharing target to make a 47.5% reduction ([51]). The draft updated plan reiterates France's commitment to achieve climate neutrality by 2050 and sets out specific pathways in line with its long-term strategies.

Graph A6.1: **Greenhouse gas emissions from the effort sharing sectors in Mt CO2eq, 2005-2022**



Source: European Environment Agency.

France's draft updated NECP lacks setting a target for renewable energy, which will have to be reflected in its final updated NECP ([52]). France did not set a target for renewable sources in gross final energy consumption by 2030 in its draft updated NECP. Its energy efficiency contribution of 158.56 Mtoe in primary energy consumption and 106.93 Mtoe in final energy consumption for 2030 set in the draft updated

([48]) This Annex is complemented by Annex 7 on energy transition and competitiveness, Annex 8 on the fair transition to climate neutrality, Annex 9 on resource efficiency, circularity, and productivity, and relevant topics in other annexes to this country report.

([49]) See the Commission's (2023) assessment of the draft national energy and climate plan of France.

([50]) The national greenhouse gas emission reduction target is laid down in Regulation (EU) 2023/857 (the Effort Sharing Regulation). The aim is to align action in the sectors concerned with the objective to reach the EU-level economy-wide target of greenhouse gas reductions of at least 55% compared to 1990 levels. The target also applies to the sectors outside the current EU Emissions Trading System, notably buildings (heating and cooling), road transport, agriculture, waste, and small industry (known as the effort sharing sectors).

([51]) The effort sharing emissions for 2022 are based on approximated inventory data. The final data will be established in 2027 after a comprehensive review. Projections on the impact of current policies ('with existing measures', WEM) and additional policies ('with additional measures', WAM) as per France's draft updated NECP.

([52]) The EU target set out in the revised Renewable Energy Directive is to have 42.5% of gross final energy consumption coming from renewable energy sources by 2030, with the aspiration to reach 45%. The formula in Annex I to Directive (EU) 2023/1791 sets the indicative national contribution for France at 157.3-158.7 Mtoe for primary energy consumption and 106.93 Mtoe for final energy consumption. See the Commission Recommendation of 18.12.2023 to France

NECP match the contribution required under the Energy Efficiency Directive.

The shift to sustainable transport is starting to gain ground in France ([53]). Cars are used for 85% of distances travelled, close to the EU average of 87.5%. At 9%, the share of rail passenger transport is the highest in the EU. For freight, however, road is the dominant form of transport at 85%, with only 10% of freight transported by rail (against the EU average share of 75% to 16%). The share of battery electric cars in the passenger car fleet has been increasing rapidly, reaching 1.7% in 2022 (EU average: 1.2%). In 2023, France had 118 000 publicly accessible charging points, or one for every 10 electric vehicles, in line with the EU average. Besides, 59% of the rail network is electrified.

France is projected to miss its 2030 target for net carbon removals through land use, land-use change and forestry (LULUCF) ([54]). In the land-use sector, France's forests and grasslands achieve a major share of net carbon removals; by contrast its croplands and settlements are sources of net greenhouse gas emissions. France increased its net carbon sink through land use between 1990 and 2008, after which it plateaued and then in 2013 it went into sharp decline. This is due to higher tree mortality rates caused by droughts and pests, and to higher projected volumes of harvested wood. To reach its 2030 LULUCF target, additional carbon removals of 6 693 kt CO_2eq are needed ([55]). To get back on track to meet the 2030 target, charting a clear path to the target that specifies additional measures with timeframes, scopes and quantified expected impacts would help.

Water management is a key challenge regarding adaptation to climate change in France, also given the risk of electricity disruption to hydro- and nuclear energy provision as floods, heat and drought have an impact on energy production. France's climate protection gap ([56]) remains low thanks to a high share of insurance coverage across risk categories ([57]), though half of France's forests are estimated to be at risk of wildfires ([58]). The water exploitation index plus (WEI+) measured 2.8% in 2019, below the EU average of 3.6% ([59]). On average, 3.5% of France's area was affected by droughts between 2000 and 2020. The 2022 severe drought caused water supply restrictions in 93 departments. By 2050, France is estimated to face a water shortage of two billion m^3. Water supply and sanitation are also particular concerns in France's outermost regions, due to the effects of climate change on rainfall.

Putting in place suitable institutional settings is crucial for climate adaptation. In France, strong legislation and governance structures underpin the work on climate adaptation, but responsibilities across the respective institutions must be further clarified to strengthen horizontal policy integration ([60]). France's 3rd national adaptation plan for climate change (PNACC-3) is scheduled for publication in 2024. The aim is to prepare France to cope with a temperature increase of 4°C by 2100.

Pollution is driven by pressure on water and nature from intensive agriculture, including the use of pesticides and nutrients. The latest figures for the gross nitrogen balance on agricultural land in France indicate an average surplus of 38 kg of nitrogen per hectare per year in 2019, lower than the previous year. The content of nitrates in groundwater is below the EU average at 19.3 versus 20.5 mg nitrates/l. In 2019, 13% of groundwater monitoring stations recorded levels above the maximum 50 mg nitrates/l, against an EU average in 2020 of 5.8%. The chemical status of waterbodies is subject to high levels of pesticide contamination. In 2021, 18.6% of

([53]) Unless otherwise indicated, data in this section refer to 2021. See European Commission, 2023, EU transport in figures, transport.ec.europa.eu.

([54]) Projections submitted in France's draft updated national energy and climate plan for 2023.

([55]) National LULUCF targets of the Member States in line with Regulation (EU) 2023/839.

([56]) On the climate protection gap, see the annotations to Table A6.1.

([57]) About 41% of economic losses caused by climate change were insured between 1980-2020.

([58]) 2 ème Plan National d'Adaptation au Changement Climatique, Ministère de la Transition Écologique et Solidaire, 2018.

([59]) WEI+ values above 20% are generally an index of water scarcity; values above 40% indicate that stress is severe and freshwater use unsuitable.

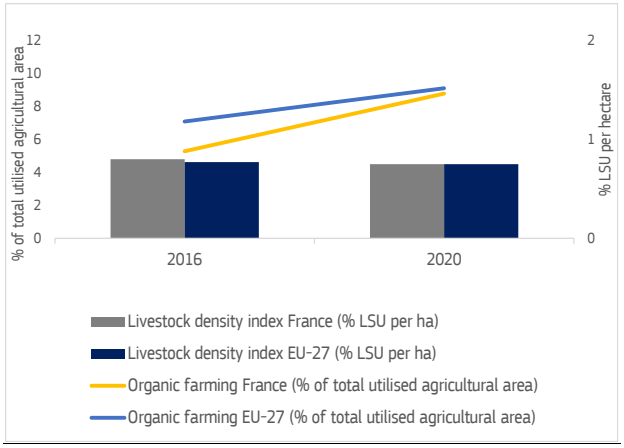
([60]) See the Commission's 2023 assessment and recommendation on France's progress on climate adaptation.

monitoring sites were reported to have pesticide levels exceeding the thresholds set by the Water Framework Directive. According to national statistics, 'Among the extraction points closed due to water quality issues, 40.7% were due to excessive amounts of nitrates and pesticides' ([61]). According to the 2nd river basin management plan data ([62]), 44% of all surface water bodies were in at least a good ecological status and 63% were in a good chemical status. France's marine waters are not yet in a good environmental status as tracked by the descriptors used in the Marine Strategy Framework Directive ([63]).

France has proposed strategic measures to resolve these issues but faces challenges in implementing them. On 30 March 2023, France adopted 53 measures under the 'Plan Eau' (17) to increase water efficiency, reuse treated waters, increase storage through nature-based solutions and grey infrastructure, protect and restore water ecosystems and improve governance. But in early December 2023, the authorities decided not to bring in price-related disincentives for irrigation and diffuse pollution (18), which signals a reduced ambition level. France's water management measures are central to its green transition and remain to be assessed in light of the April 2024 stocktaking of the Plan Eau and proposed law on agriculture."

France has scope to improve biodiversity, nature protection and restoration. By the end of 2021, France had protected 27.6% of its land and 37.6% of marine areas. 20% of habitats and 28% of species reached good conservation status. The widespread use of exemptions and compensation measures to authorise infrastructure projects at the expense of nature is a concern. On 27 November 2023, France adopted a new 2030 biodiversity strategy, updating the 2020 strategy. The new strategy focuses on climate change adaptation measures, on restoring degraded and artificial ecosystems, reducing the pollution of air, soil and oceans and reducing the overexploitation of natural resources. It does not anticipate bringing in new and binding rules.

Graph A6.2: **Changes in livestock density and organic farming**



Livestock unit (LSU)/ha of UAA: it measures the stock of animals (cattle, sheep, goats, equidae, pigs, poultry and rabbits) converted in LSUs per hectare of UAA.
Source: Eurostat

France would benefit from investing more in sustainable water management and in measures protecting biodiversity, combating desertification and reducing pollution. According to the latest estimates, the overall environmental investment needs for 2021-2027 are at least EUR 59.9 billion a year, against the financing baseline of EUR 40 billion. This leaves a total financing gap equivalent to EUR 19.9 billion. The annual investment gap for sustainable water management widened to EUR 4.3 billion, and the gap for pollution prevention and control widened to EUR 8.4 billion. However, the annual investment gaps for biodiversity and ecosystems, and circular economy and waste narrowed to EUR 2.6 billion and EUR 4.6 billion respectively. Investing in nature restoration would bring significant economic benefits, as every euro invested in nature is estimated to generate at least EUR 8 in benefits ([64]). Finally, France's efforts to improve and present a Green Budget for government expenditure are best practice, as underlined by the OECD ([65]).

([61]) La pollution des eaux superficielles et souterraines en France - Synthèse des connaissances en 2022 | Données et études statistiques (developpement-durable.gouv.fr)

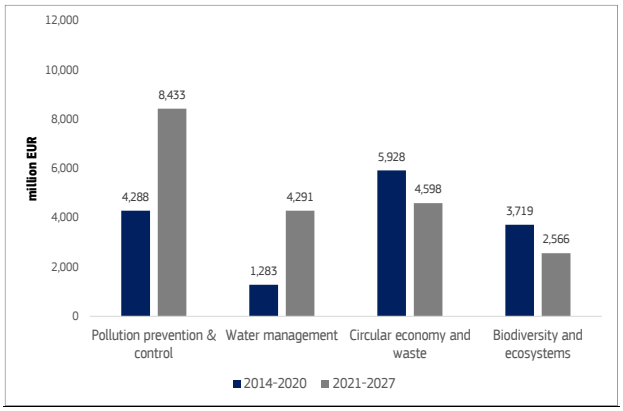
([62]) Data from the 3rd river basin management plan is not available yet.

([63]) EUR-Lex - 52022XC0314(01) - EN - EUR-Lex (europa.eu) ; The next reporting on the state of the marine environment is due in October 2024. See also France – Marine (europa.eu).

([64]) European Commission (2022), impact assessment accompanying the proposal for a Regulation of the European Parliament and the Council on nature restoration, SWD(2022) 167 final.

([65]) OECD (2023), Green Budgeting report.

Graph A6.3: **Environmental investment gap, annual average**



The numbers are computed by the European Commission based on the latest internal reports, Eurostat, EIB and national data sources.
Source: European Commission

Table A6.1: **Indicators tracking progress on the European Green Deal from a macroeconomic perspective**

							Target [13]	Distance	
		2005	2019	2020	2021	2022	2030	WEM	WAM
Progress to climate and energy policy targets									
Greenhouse gas emission reductions in effort sharing sectors [1]	Mt CO_{2eq} %, pp	401,113.7	-16%	-23%	-19%	-22%	-48%	-14	1.1
Net greenhouse gas removals from LULUCF [2]	Kt CO2eq	-52 785	-18 611	-21 354	-19 045	-18 500	-34,046	n/a	n/a
Share of energy from renewable sources (1) [3]	%	9%	17%	19%	19%	20%	0.44	-	-
Energy efficiency: primary energy consumption [3]	Mtoe	261.0	235.5	208.0	224.8	205.6	157.3		
Energy efficiency: final energy consumption [3]	Mtoe	160.1	145.5	129.7	143.0	138.5	106.9		
							EU-27		Projected
		2018	2019	2020	2021	2022	2021	2022	2030
Green transition: mobility									
Greenhouse gas emissions: road transport	Mt CO2e	-	-	-	120.0	122.3	769.0	786.6	97.0
Share of zero-emission vehicles in new registrations [4]	%	1.5	2	6.7	9.8	13.3	9	12.1	n/a
Number of publicly accessible AC/DC charging points		-	-	0	54653	83317	299178	446956	n/a
Share of electrified railways	%	58.2%	58.5%	58.8%	59.3%	-	56.1%	-	n/a
Green transition: buildings									
Greenhouse gas emissions: buildings	Mt CO2e	-	-	-	77.5	67.4	537.0	486.7	56.4
Final energy consumption in buildings	2015=100	100.6%	99.6%	95.7%	102.7%	91.8%	104.0%	104.0%	
Climate adaptation									
Climate protection gap [5]	score 1-4	-	-	0.5	1.3	1.1	1.5	1.5	n/a
		2018	2019	2020	2021	2022	2020	2021	2022
State of the environment									
Water | Water exploitation index (WEI+) (1) [6]	% of renewable freshwater	1.7	2.8	-	-	-	3.6	-	-
Circular economy | Material footprint [7]	tonnes per person	13.7	13.8	12.7	13.6	12.9	14.2	14.8	14.9
Pollution | Years of life lost due to air pollution by PM2.5 [8]	per 100.000 inhabitants	409	334	270	327	-	545	584	-
Biodiversity | Habitats in good conservation status [9]	%	20.2					14.7		
Common farmland bird index [10]	2000=100	64	-	-	-	-	78	-	-
Green transition: agri-food sector									
Organic farming	% of total utilised agricultural area	7.01	7.72	8.77	9.67	-	9.1	-	-
Nitrates in groundwater	mg NO_3/litre	51.66	48.19	43.37	-	-	20.42	-	-
Food waste per capita	Kg per capita			129	129	-	130	131	-
Share of soil in poor health [11]	%					44			41
Soil organic matter in agricultural land [12]	Mt per ha	1,481	-	-	-	-	7,904	-	-

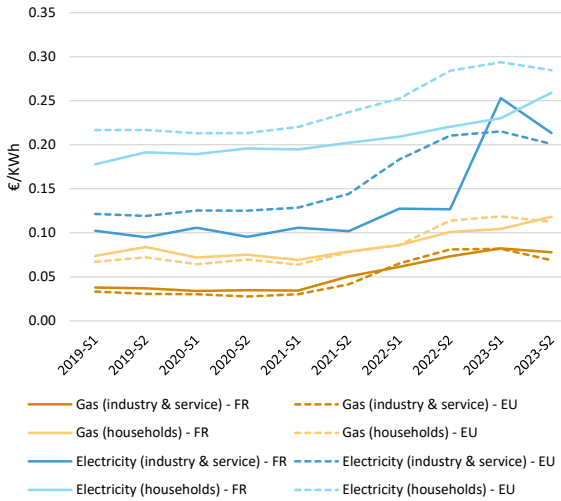
Sources: (1) Member States' emission data for 2019 and 2020 are in global warming potential (GWP) values from the 4th Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC). Member States' 2005 base year emissions under Regulation (EU) 2018/842, emissions data for 2021 and 2022, and 2030 projections are in GWP values from the 5th Assessment Report (AR5) of the IPCC. 2021 data are based on the final inventory reports, 2022 data are based on approximated inventory reports and European Environmental Agency's calculation of effort sharing emissions. The final data for 2021 and 2022 will be established after a comprehensive review in 2027. The 2030 target is in percentage change of the 2005 base year emissions. Distance to target is the gap between the 2030 target and projected effort sharing emissions with existing measures (WEM) and with additional measures (WAM), in percentage change from the 2005 base year emissions. The measures included for the 2030 emission projections reflect the state of play as reported in Member States' draft updated national energy and climate plans or, if unavailable, as reported by 15 March 2023 as per Regulation 2018/1999. (2) Net removals are expressed in negative figures, net emissions in positive figures. Reported data are from the 2024 greenhouse gas inventory submission. 2030 value of net greenhouse gas removals as in Regulation (EU) 2023/839 – Annex IIa. (3) The 2030 national objectives for renewable energy and energy efficiency are indicative national contributions, in line with Regulation (EU) 2018/1999 (the Governance Regulation), the EU-level 2030 renewable energy target set out in Directive EU/2018/2001 amended by Directive EU/2023/2413 (the revised Renewable Energy Directive) – 42.5% of gross final energy consumption with the aspiration to reach 45% –, and the formula in Annex I to Directive (EU) 2023/1791 (the Energy Efficiency Directive). (4) Passenger battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV). (5) The climate protection gap refers to the share of non-insured economic losses caused by climate-related disasters, based on modelling of the risk from floods, wildfires, windstorms, and the insurance penetration rate. Scale: 0 (no protection gap) –4 (very high gap) (European Insurance and Occupational Pensions Authority, 2022). (6) Total water consumption in renewable freshwater resources available for a territory and period. (7) Material extractions for consumption and investment. (8) Years of potential life lost through premature death due to exposure to particulate matter with a diameter of less than 2.5 micrometres. (9) Share of habitats in good conservation status according to the records submitted under Art. 17 of the Habitats Directive (Directive 92/43/EEC) for 2013-2018. (10) Multi-species index measuring changes in population abundances of farmland bird species. (11) Source: annex 12 of the Commission's proposal for a soil monitoring law, SWD (2023) 417 final. (12) Estimates of organic carbon content in arable land. (13) This value is indicative and will be updated in 2025 (as mandated by Regulation (EU) 2023/839).

This Annex ([66]) sets out France's progress and challenges in accelerating the net-zero energy transition while bolstering the EU's competitiveness in the clean energy sector ([67]). It considers measures and targets put forward in the draft updated National Energy and Climate Plans (NECP) for 2030 ([68]).

Unlike the prevailing trends witnessed across the EU, in 2023 only gas and electricity prices for industry and services declined slightly while prices for household prices increased. In the second semester of 2023, gas and electricity prices for industry decreased by 5% and 15% respectively. On the opposite, gas and electricity prices for households increase both by around 13% on average during the same period. In the second semester of 2023, gas and electricity prices were close to the EU average, with the biggest gap being electricity prices for household, 9% below EU averages.

In 2023 France maintained their measures protecting households and businesses, to address rising energy prices. The tariff shield applied to regulated tariffs in electricity increased by 15% in February 2023. France phased out regulated prices for gas in July 2023, after a long transition phase, but maintained the tariff shield for gas consumers in 2023, with a rise limited also to 15%. In 2023, energy vouchers for low-income households, to cover either electricity, gas or heating oil bills, were back to their normal application, after several exceptional energy vouchers were issued in 2022 and early 2023 ([69]). France also maintained its support for energy-intensive industries, microenterprises and SMEs, to help them face energy price increases.

Graph A7.1: **France´s energy retail prices for households and industry & service**



(1) For industry, consumption bands are I3 for gas and IC for electricity, which refer to medium-sized consumers and provide an insight into affordability
(2) For households, the consumption bands are D2 for gas and DC for electricity
(3) Industry prices are shown without VAT and other recoverable taxes/levies/fees as non-household consumers are usually able to recover VAT and some other taxes
Source: Eurostat

In relative terms, electricity prices for non-household consumers have increased significantly compared to the US, Japan, and the UK, thus potentially affecting the international competitiveness of energy-intensive industries in France.

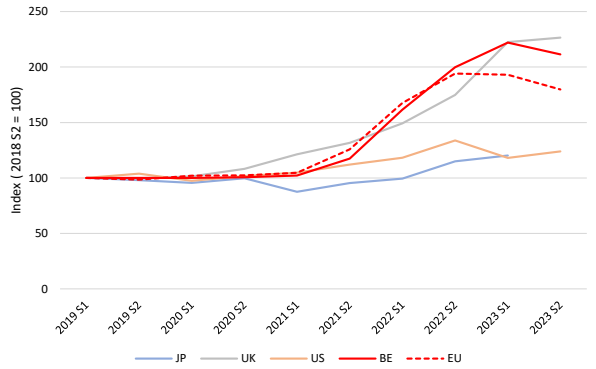
([66]) It is complemented by Annex 6 as the European Green Deal focuses on the clean energy transition and by Annex 8 on the action taken to protect the most vulnerable groups, complementing ongoing efforts under the European Green Deal, REPowerEU and European Green Deal Industrial Plan.

([67]) In line with the Green Deal Industrial Plan and the Net-Zero Industry Act

([68]) France submitted its draft updated NECP in November 2023. The Commission issued an assessment and country-specific recommendations on 18 December 2023. Commission Recommendation, Assessment (SWD) and Factsheet of the draft updated National Energy and Climate Plan of France - European Commission (europa.eu)

([69]) France estimates that the energy voucher therefore decreased the energy poverty indicator by 1.5 points and the exceptional energy voucher by an additional 1 point, with a total reduction of 2.5 points FR NECP – P. 78

Graph A7.2: **Trends in electricity prices for non-household consumers (EU and foreign partners)**



(1) For Eurostat data (EU and FR), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness
(2) JP = Japan
Source: Eurostat, IEA

Consumer empowerment in the electricity and gas markets is at a good level. The share of fixed-price contracts held by household consumers in electricity increased from 30 to 40%. Variable contracts for gas increased from 25 to 60%, probably also due to the phase out of regulated tariffs for gas, which was rolled out in 2023 ([70]). 92% of final household consumers had smart meters in 2022 (EU average 80%). Average progress was reported with the implementation of renewable energy communities in France in 2022. France has fourteen storage facilities with a total capacity of 11.2 bcm, representing 30% of its annual gas consumption in 2022. France fulfilled its gas storage obligations last winter, reaching 99.8% by 1 November 2023, and ended the winter season with a storage filled at 39.31% by 1 April 2024.

Due to its nuclear plants, some renewables and high level of electrification, France has a relatively low reliance on fossil fuels in its electricity mix ([71]), which limited its energy imports dependency. In 2021, gas accounted for 15% of the energy mix and 6% of its electricity mix and was fully imported. France has traditionally had a diversified supplier portfolio. It has significant LNG import capacity with its 4 terminals, in Dunkerque, Montoir-de-Bretagne, two in Fos-sur-Mer and, since 2023, one floating storage and regasification unit (FSRU) in Le Havre. France is also directly connected to Norwegian gas fields in the North Sea with the Franpipe pipeline, and to that country's oversized gas storage capacity. As for electricity security of supply for winter 2023/24, ENTSO-E analysis shows a very low expected risk of adequacy issues but higher than in the other Member States. France managed to reduce its gas demand between August 2022 and December 2023 by 20% in comparison with the average of the previous five years.

Despite an increase by 8% in installed renewable capacity in 2022, driven by the significant increase in solar, in particular photovoltaics, France is lagging behind in deploying renewable energy, especially for electricity production and heating ([72]). Total renewable energy capacity in France in 2022 stood at 65.4 GW ([73]). This showed a considerable increase in 2022 for solar PV (2.3 GW) and wind installations (2 GW including 0,5 GW offshore). The total installed solar capacity in 2022 was 16.3 GW. The total wind capacity in France for 2022 was 21.1 GW, mostly onshore wind but with the first large offshore windfarm now deployed (0.5 GW) ([74]). France aims to reach 3.6 GW of offshore wind by 2030 ([75]). This goal is below the one defined in the non-binding 2023 EU Sea Basins agreements to which France is a party. The absence of renewable energy targets in the 2024 draft law on energy security sends mixed signals in terms of France's commitment to accelerating the installation of renewable energy.

([70]) Switching rates in electricity decreased with the crisis, around 10%, while in gas the rate stayed stable at around 15%.

([71]) France's share of fossil fuels in its electricity mix in 2023 was 8.4 % (compared to 33% at EU level), while its share of nuclear was 65% and of renewables 26.3%. However, in the energy mix, the share of fossil fuels increased from 46,5% in 2021 to 50.3% in 2022 even if it was still below the EU share of 69% in 2022; France reached in its energy mix a low share of renewables of 14.6% while the share of nuclear was 35% (Eurostat data – Gross inland consumption).

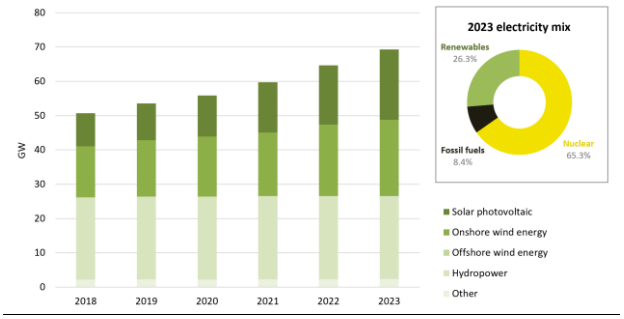
([72]) See Annex 6 and the assessment of the draft of the FR NECP update.

([73]) IRENA report 2023

([74]) IRENA Report 2023

([75]) SWD assessment of the draft French updated NECP

Graph A7.3: **France's installed renewable capacity (left) and electricity generation mix (right)**



(1) "Other" includes solar thermal energy, marine energy, solid biofuels, renewable municipal waste, liquid biofuels, biogas, geothermal energy

Source: IRENA, Ember

The new law on renewable energy acceleration makes progress on granting permits and offshore planning, but more is needed to deliver the necessary acceleration. In fact, there is still a need for clear and accelerated deadlines for projects outside the acceleration zones introduced in the new law. In addition, France is still lagging behind on the introduction of a one-stop shop for renewable energy permitting (see Annex 12). The legal status of renewable energy communities was clarified in 2023 but there remains a need to grant them simplified grid connection procedures.

France has set ambitious targets for renewable heating and cooling, but additional policies and measures may be required to deliver them ([76]). 54% of the renewable energy used for heating and cooling comes from biomass, the consumption of which is expected to increase by 31% by 2030. Uptake of heat pumps is growing fast and expected to more than double within that time. However, it is not clear whether the tools to deliver these targets are sufficient, as renewable heat is largely absent from the new renewables law.

The existing nuclear fleet of 56 reactors (all PWR design), with a total capacity of 61.4 GWe, is planned to continue operating for as long as safety requirements are met. In 2022 nuclear electricity production accounted for around 63%, which was a historically low level compared to the previous years ([77]), mainly due to unplanned outages and generic stress corrosion issues ([78]). In January 2023, the French government approved a bill repealing the objective to reduce the nuclear share to 50% of the total national electricity mix by 2035. While the EPR project is in a start-up phase at Flamanville (initially planned for the second quarter of 2023), the construction and commissioning of new nuclear reactors (three pairs of EPR2 reactors ([79]), with total capacity of 9.9 GWe) are also expected and pending Final Investment Decision by the end of 2025.

France projects an acceleration from its current levels of biogas production, which amounted to 1.6 bcm in 2021. Biogases account for 3.8% of the country's natural gas supply. By 2030 France plans to have 50 TWh (or 5.12bcm) of annual biogas production, of which 44 TWh (4.5 bcm) is to be injected into the gas network ([80]). A one-stop-shop has been established to support project planning and permitting. France intends to develop a mandatory blending trajectory with a Biomethane Production Certificates mechanism, among other incentives ([81]). It is estimated that if the objective of producing 44 TWh was to be reached, biomethane would account for 15% of gas consumption from natural gas grids.

France needs further investment in its electricity grids to (i) allow the electrification of new consumption sectors that still rely on fossil fuels and (ii) integrate increasing volumes of renewable energy, even in the scenarios that see a resurgence of nuclear power. France's electricity interconnectivity, measured as a country's import capacity over its installed generation capacity, stood at 5.6% in 2022 and 5.0% in 2023 and is expected to reach 5.6% in 2024. Interconnection availability increased by 1 GW from 2022 to 2023,

([76]) France's 2030 target for renewables in heating and cooling (45%) is in line with the new, increased targets in the Renewable Energy Directive.

([77]) In 2021 nuclear production was 69% of overall electricity generation

([78]) In July 2022, the French Nuclear Safety Authority (ASN) approved the EDF's inspection strategy to address the generic stress corrosion phenomena by checking all reactors operated by the company by 2025.

([79]) Penly, Gravelines and Bugey sites

([80]) 15% of gas in the distribution grids.

([81]) The mandatory purchase obligation scheme for biomethane injected into a natural gas network is intended to support projects with a production capacity exceeding 25 GWh/year.

but production capacities also increased (solar and wind). An additional electricity interconnector with Italy became fully operational in 2023 and construction is ongoing for interconnectors with Ireland and Spain. France is also investing in grid connections for offshore wind parks (approx. EUR 700 million in 2022 and 2023) ([82]).

France has demonstrated some progress on energy efficiency. In 2022, France's final energy consumption decreased by 0.5% (climate-corrected data) compared to 2021. In this last year, good results came from the residential sector, which decreased its final energy consumption by 3.4% and the worst from the transport sector, which increased its final energy consumption by 4.3% (real data) ([83]).

France needs to step up its efforts in the residential sector to achieve a meaningful contribution to its 2030 reduction target for energy consumption by buildings. Final energy consumption in the residential sector increased by 2.8% ([84]) between 2015 and 2022 while the national Long Term Renovation Strategy envisages a 22% reduction of buildings' energy consumption by 2030 compared to 2015. Building renovation accounts for a significant share of the French RRP (over EUR 10 billion, out of which EUR 3 billion are allocated to energy renovation of residential buildings). The national scheme for renovating residential buildings ([85]) *MaPrimeRénov* mostly consisted of single measures and less than 10% of the buildings that were improved underwent major renovation. A larger use of financial instruments would maximise the multiplier effect of public investment.

Heating and cooling represent almost 82% of the country's residential final energy consumption, of which 26% comes from renewables. Approximately 625 000 heat pumps were sold in 2022, an increase of 16% compared to the previous year. Regarding market surveillance activities, France is not reporting any checks on products covered by ecodesign and energy labelling.

On hydrogen, France prioritises grid development in specific hydrogen hubs and their connection to storages, to decarbonise industry, possible inter-hub grid development needs will be assessed in a second phase. It has set the objective of installing 6.5 GW in electrolyser capacity by 2030 and meeting a need for 10 GW in 2035. Together with Portugal and Spain, France is promoting the development of a green energy corridor connecting Portugal, Spain and France with the EU's energy network. The new list of PCIs and PMIs that was adopted in November 2023 includes 13 PCIs in France or connecting to France in the hydrogen sector.

France has a strong manufacturing base in low-carbon technologies and components (including hydrogen and nuclear), and it is expected to expand it to other decarbonised generation technologies, in particular new offshore windfarms. France is among the leading worldwide exporters of nuclear technologies in Europe. The French recovery and resilience plan focuses heavily on hydrogen, and France is one of the world's top hydrogen providers. France is well positioned in the field of hydrogen, with industry leaders in electrolysis and fuel cell technologies. There are French companies among the biggest European manufacturers of nuclear equipment and smart meters. There are also major new French players in the batteries field, with as many as four gigafactories planned in France. In October 2021, France announced the 'France 2030', a EUR 54 billion investment plan for 2030. This targets French industrial development in the energy, automotive and space sectors, including EUR 8 billion earmarked for energy technology investment in the decarbonisation of industry, in hydrogen and in small modular reactors, and EUR 4 billion for electric and plug-in hybrid vehicles. However, public investment in

([82]) Six offshore radial connections have recently received project of common interest (PCI) status in the new list of PCIs and projects of mutual interest (PMIs) in November 2023.

([83]) The increase of the final energy consumption of the transportation sector in 2022 should be read in lines with the impact of the COVID-19 on this sector. Indeed, in 2022 the final energy consumption of transportation was 1,2% lower than in 2019.

([84]) Final energy consumption in households from Eurostat (data-tables from December 2023), climate-corrected by the Joint Research Centre with reference period 2005-2022 (FEC climate-corrected = FEC/ (HDD/HDD reference period)

([85]) France allocates EUR 3 billion in its RRP to energy renovation of private housing (MaPrimeRenov'), in total supporting the renovation of 1.450.000 private households and supporting energy efficiency renovation in social housing by allocating grants to more than 40 000 social dwellings. So far it has helped more than 700 000 households and 20 000 social dwellings with their energy renovation work.

research and innovation (R&I) as an EU Energy Union priority slightly decreased from 0.076% in 2014 to 0.073% in 2021 (as a share of GDP). There was nonetheless an upward trend in venture capital invested in climate tech start-ups and scale-ups (25% in 2023 compared to 2.4% in 2020, as a percentage of total venture capital invested in France), with France representing nearly 11% of the EU's total venture capital investment in climate tech start-ups and scale-ups. These investments play a key role in bridging the gap between R&I and market uptake, helping to boost EU competitiveness.

Relying mainly on the schemes implemented by ADEME and BPIFrance, as well as the PIA funds, France has set up a very comprehensive set of support measures for innovators to set up and scale up clean tech solutions. This set of financing measures is completed with a number of successive regulatory sandboxes setup by the French Energy Regulatory Commission (CRE) and the relevant ministers in the field of energy. These allowed a number of experiments to take place, for instance on the participation of battery storage in system services, dynamic retail electricity pricing schemes, biomethane/synthetic methane injection into distribution networks, and pooling of different types of renewable energy generation assets (e.g. solar and wind) under the same connection point, to save on infrastructure costs.

Table A7.1: **Key Energy Indicators**

		France				EU			
		2019	2020	2021	2022	2019	2020	2021	2022
ENERGY DEPENDNCE	**Import Dependency [%]**	**47.5%**	**44.4%**	**44.1%**	**51.9%**	**60.5%**	**57.5%**	**55.5%**	**62.5%**
	of Solid fossil fuels	99.6%	96.3%	73.5%	81.6%	43.3%	35.8%	37.3%	45.8%
	of Oil and petroleum products	98.4%	98.5%	97.1%	98.7%	96.7%	96.8%	91.7%	97.7%
	of Natural Gas	104.5%	94.7%	96.1%	109.0%	89.7%	83.6%	83.6%	97.6%
	Dependency from Russian Fossil Fuels [%]								
	of Natural Gas	19.8%	16.9%	21.9%	15.2%	39.7%	41.3%	41.1%	21.0%
	of Crude Oil	12.7%	8.7%	8.8%	5.2%	28.8%	26.7%	26.4%	19.5%
	of Hard Coal	26.9%	33.8%	34.8%	16.8%	43.5%	49.1%	47.4%	21.5%

		2016	2017	2018	2019	2020	2021	2022
DIVERSIFICATION OF GAS SUPPLIES	**Gas Consumption (in bcm)**	**43.2**	**43.1**	**41.1**	**41.8**	**38.9**	**41.3**	**37.8**
	Gas Consumption year-on-year change [%]	9.6%	-0.2%	-4.7%	1.8%	-6.9%	6.1%	-8.6%
	Gas Imports - by type (in bcm)	**44.4**	**46.5**	**47.1**	**53.2**	**45.3**	**45.3**	**55.4**
	Gas imports - pipeline	37.5	37.3	36.6	32.9	28.3	29.4	23.1
	Gas imports - LNG	6.8	9.2	10.5	20.3	17.0	15.9	32.3
	Gas Imports - by main source supplier (in bcm) (1)							
	United States	-	-	0.2	1.8	1.1	2.7	13.7
	Russia	8.9	8.6	9.3	10.5	7.6	9.9	8.4
	Norway	18.6	19.2	17.8	18.5	16.1	14.5	12.4
	Algeria	4.7	3.8	3.4	3.8	3.6	3.8	4.5

		2019	2020	2021	2022	2023
	LNG Terminals - storage capacity m3 LNG					
	Number of LNG Terminals	4	4	4	4	4
	LNG Storage capacity (m3 LNG)	1,370,000	1,370,000	1,370,000	1,370,000	1,227,000
	Underground Storage					
	Number of storage facilities	15	15	15	15	15
	Technical Capacity (bcm)	13.4	13.2	13.2	13.7	11.5

		2016	2017	2018	2019	2020	2021	2022	2023
ELECTRICITY/ENERGY	**Gross Electricity Production (GWh) (2)**	**564,056**	**561,943**	**581,685**	**570,775**	**532,255**	**555,082**	**474,744**	-
	Combustible Fuels	63,969	72,878	57,647	62,148	56,864	58,149	70,176	-
	Nuclear	403,195	398,359	412,942	399,012	353,833	379,361	294,731	-
	Hydro	65,686	55,135	70,472	61,572	67,094	63,947	51,049	-
	Wind	21,381	24,609	28,599	34,722	40,045	37,119	38,004	-
	Solar	8,660	9,587	10,808	12,165	13,189	15,357	19,628	-
	Geothermal	98	133	127	128	133	100	114	-
	Other Sources	1,068	1,241	1,091	1,028	1,096	1,049	1,043	-
	Gross Electricity Production [%]								
	Combustible Fuels	11.3%	13.0%	9.9%	10.9%	10.7%	10.5%	14.8%	-
	Nuclear	71.5%	70.9%	71.0%	69.9%	66.5%	68.3%	62.1%	-
	Hydro	11.6%	9.8%	12.1%	10.8%	12.6%	11.5%	10.8%	-
	Wind	3.8%	4.4%	4.9%	6.1%	7.5%	6.7%	8.0%	-
	Solar	1.5%	1.7%	1.9%	2.1%	2.5%	2.8%	4.1%	-
	Geothermal	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Other Sources	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	-
	Net Imports of Electricity (GWh)	**- 41,501**	**- 40,129**	**- 62,967**	**- 57,667**	**- 45,039**	**- 44,892**	**14,945**	-
	As a % of electricity available for final consumption	-9.1%	-8.9%	-14.0%	-13.0%	-10.7%	-10.2%	3.5%	-
	Electricity Interconnection [%]	-	**9.4%**	**7.9%**	**8.1%**	**8.5%**	**5.1%**	**5.6%**	**5.0%**
	Share of renewable energy consumption - by sector [%]								
	Electricity	19.2%	19.9%	21.1%	22.4%	24.8%	24.8%	27.3%	-
	Heating/cooling	20.1%	20.6%	21.2%	22.4%	23.4%	23.9%	26.3%	-
	Transport	8.4%	8.8%	9.0%	9.2%	9.2%	8.3%	9.0%	-
	Overall	15.5%	15.8%	16.4%	17.2%	19.1%	19.2%	20.3%	-

		2019	2020	2021	2022	2023
CLEAN ENERGY	**VC investments in climate tech start-ups and scale-ups (EUR Mln)**	**146.23**	**195.39**	**691.14**	**1,201.01**	**2,548.14**
	as a % of total VC investment (3) in France start-ups and scale-ups	2.4%	2.4%	5.3%	7.6%	25.0%
	Research & Innovation spending in Energy Union R&i priorites					
	Public R&I (EUR mln)	1,410.9	1,605.7	1,822.2	-	-
	Public R&I (% GDP)	0.06%	0.07%	0.07%	-	-
	Private R&I (EUR mln)	3,032.8	3,281.4	-	-	-
	Private R&I (% GDP)	0.12%	0.14%	-	-	-

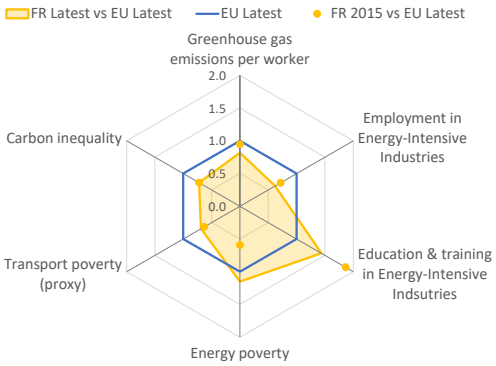
(1) The ranking of the main suppliers is based on the latest available figures (for 2022)
(2) Venture Capital investment includes Venture Capital deals (all stages), Small M&A deals and Private Equity (PE) growth deals (for companies that have previously been part of the portfolio of a VC investment firm or have received Angel or Seed funding).
Source: Eurostat, Gas Infrastructure Europe, JRC elaboration based on PitchBook data (03/2024), JRC SETIS (2024)

This Annex monitors France's progress in ensuring a fair transition towards climate neutrality and environmental sustainability, particularly for workers and households in vulnerable situations. Employment in France's green economy continues to increase. Between 2015 and 2021, total jobs in the environmental goods and services sector grew by 24.6% to around 1.1 million (EU: 18.2%), reaching 3.9% of total employment (EU: 2.7%). Between 2015 and 2022, the greenhouse gas emission intensity of France's workforce (see Graph A8.1 and Table A8.1) declined from 13.5 to 11.7 tonnes per worker, below the EU average (14.3 tonnes per worker in 2022) ([86]), indicating a positive trend in the green transition process. Upskilling and reskilling are key to achieving a fair green transition in line with the Council Recommendation of 2022 on ensuring a fair transition towards climate neutrality ([87]) and implementing the REPowerEU plan. France's recovery and resilience plan (RRP) focuses largely on supporting a fair green transition, especially through energy renovation of buildings, including social housing. This complements the territorial just transition plans under the Just Transition Fund and actions supported by the European Social Fund Plus (ESF+).

Employment in energy-intensive industries is relatively low. In 2023, employment in France's energy-intensive industries comprised 2.2% of total employment (3.5% in the EU). Employment in mining and quarrying has risen by 27.4% since 2015 (to around 34 900 workers in 2023), despite the closure of the remaining coal mines and the decline of petroleum refineries. The job vacancy rate in construction (see Graph A8.2), a key sector for the green transition, is below the EU average (2.6% vs 3.6% in 2023). Nevertheless, 52% of small and medium-sized enterprises (SMEs) in the sector report that skills shortages are holding them back in general business activities ([88]).

According to the European Labour Authority (ELA) ([89]), labour shortages were reported in 2023 for a number of occupations that required specific skills or knowledge for the green transition ([90]), including electrical engineering professionals, plumbers and pipe fitters and power production plant operators.

Graph A8.1: **Fair transition challenges in France**



Source: Eurostat, EU Labour Force Survey, EMPL-JRC GD-AMEDI/AMEDI+ and DISCO(H) projects (see Table A8.1).

Upskilling and reskilling actions in declining and transforming sectors decreased, in an environment where there are already skills shortages and mismatches, including in sectors of the green economy. In energy-intensive industries, workers' participation in education and training decreased from 20.5% in 2015 to 14.4% in 2021. However, this rate increased again to 15.6% in 2023, and it remains above the EU average (10.9%). In France, 49% of SMEs think that the skills required for greening business activities are becoming more important (EU: 42%) ([88]). If France matches its projected contribution to the EU's 2030 renewable energy target, between 4 500 and 13 300 additional skilled workers will be needed for the deployment of wind and solar energy, which may require an investment in skills of EUR 142.8-178.5 million ([91]). Developing dedicated cross-cutting strategies for green skills at national level could be beneficial in this context. Despite the adoption of some measures, such as the design and

([86]) Workforce-related calculations are based on the EU Labour Force Survey. Note, in the 2023 country report for France, such indicators were calculated based on the employment statistics in the national accounts. This may result in limited comparability across the two reports.

([87]) Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality (2022/C 243/04) covers employment, skills, tax-benefit and social protection systems, essential services and housing.

([88]) Eurobarometer on skills shortages, recruitment, and retention strategies in small and medium-sized enterprises.

([89]) Based on the European Labour Authority 2024 EURES Report on labour shortages and surpluses 2023, i.e., data submitted by the EURES National Coordination Offices.

([90]) Skills and knowledge requirements are based on the European Skills Competences and Occupations (ESCO) taxonomy on skills for the green transition.

([91]) EMPL-JRC AMEDI+ project.

Table A8.1: **Key indicators for a fair transition in France**

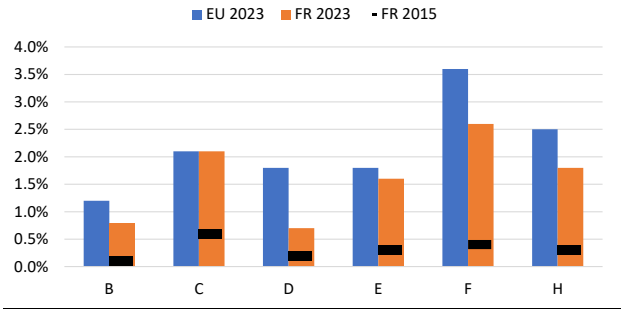
Indicator	Description	FR 2015	FR	EU
GHG per worker	Greenhouse gas emissions per worker – CO_2 equivalent tonnes	13.5	11.7 (2022)	14.3 (2022)
Employment EII	Employment share in energy-intensive industries, including mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24) and automotive (C29)	2.5%	2.2% (2023)	3.5% (2023)
Education & training EII	Adult participation in education and training (last 4 weeks) in energy-intensive industries	20.3%	15.6% (2023)	10.9% (2023)
Energy poverty	Share of the total population living in a household unable to keep its home adequately warm	5.5%	10.7% (2022)	9.3% (2022)
Transport poverty (proxy)	Estimated share of the AROP population that spends over 6% of expenditure on fuels for personal transport	23.5%	25.5% (2023)	37.1% (2023)
Carbon inequality	Ratio between the consumption footprint of the top 20% vs bottom 20% of the income distribution	2.0	2.0 (2021)	2.7 (2021)

Source: Eurostat (env_ac_ainah_r2, lfsa_egan2d, ilc_mdes01), EU Labour Force Survey (break in time series in 2021), EMPL-JRC GD-AMEDI/AMEDI+ and DISCO(H) projects.

implementation of local contracts for the success of the green transition, with expected limited impact, identifying specific territories, regions and target groups could help in providing education and training more effectively. Social partners also play a key role as stakeholders in organisations that promote training and skills for workers ([92]). Access for low-skilled people to training courses to gain more qualifications and a better coordination between investments at national and regional level seem key (see Annex 14). To address skills shortages in the green economy, specific investments under the Just Transition Fund are expected to support the upskilling and reskilling of workers and jobseekers in regions most affected by the climate transition and help them seize emerging employment opportunities, particularly in the sectors supporting economic diversification, such as renewable energy, circular economy and waste management. In addition, 5.8% of ESF+ funding in France help increase green skills and jobs, in particular by developing academic guidance and educational content promoting green jobs.

Energy poverty indicators have significantly worsened in recent years due to higher energy costs. The share of the population unable to keep their homes adequately warm increased significantly from 6.0% in 2021 to 10.7% in 2022 (above the EU average of 9.3%) ([93]). The indicator increased by 4.7 percentage points between 2021 and 2022 on the back of energy price increases due to supply constraints caused by the COVID-19 pandemic and Russia's war of aggression against Ukraine, despite the emergency measures implemented in France. In 2022, 23.5% of the population at risk of poverty (AROP) (EU: 20.1%) and 11.2% of lower middle-income households (in deciles 4-5) were affected (EU: 11.6%). Moreover, in January 2023, 25.5% of the population at risk of poverty spent more than 6% of their budget on private transport fuels (EU: 37.1%) ([94]).

Graph A8.2: **Job vacancy rate in transforming sectors and mining and quarrying**



B - Mining and quarrying
C - Manufacturing
D - Electricity, gas, steam and air conditioning supply
E - Water supply; sewerage, waste management and remediation activities
F - Construction
H - Transportation and storage
Source: Eurostat jvs_a_rate_r2.

Consumption footprint inequality remains a critical issue leading to environmental inequalities in France. In 2021, the consumption footprint for 20% of the population with the highest income was 2.0 times higher than the footprint of the poorest 20% ([95]) (EU: 1.8). For both groups, the consumption footprint is highest for food and mobility. The average levels of air

([92]) France Stratégie, Les opérateurs de compétences au défi de la transition écologique, July 2022.

([93]) Energy poverty is a multi-dimensional concept. The indicator used focuses on an outcome of energy poverty. Further indicators are available at the Energy Poverty Advisory Hub.

([94]) Affordability of private transport fuels is one key dimension of transport poverty. The indicator has been developed in the context of the EMPL-JRC GD-AMEDI/AMEDI+ projects. Methodology explained in Economic and distributional effects of higher energy prices on households in the EU.

([95]) Developed in the context of the EMPL-JRC DISCO(H) project. Methodology explained in Joint Research Centre, 2024. Carbon and environmental footprint inequality of household consumption in the EU. JRC137520. The EU average refers to EU27 without Italy (household income data not available for IT in the HBS)

pollution in 2021 stood below the EU average (9.4 vs 11.4 µg/m^3 PM2.5). However, 34% of the population lives in regions exposed to critical levels of air pollution, leading to a significant impact on health, affecting vulnerable groups in particular, and around 20 100 premature deaths annually ([96]).

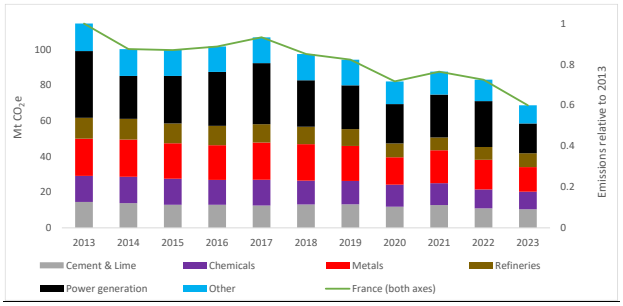
France is already implementing policy measures to support a fair transition towards climate neutrality in line with the Council Recommendation of 2022 ([87]) but more could be done. Investments in skills are already in place, including those helping to set up the ROME 4.0 skills directory to improve the mapping of green skills. Further steps are needed to improve the attractiveness, working conditions and wages in green jobs, across all skills levels. France has put in place several instruments to promote entrepreneurship and access to finance for businesses. However, specific incentives for the sectors of the green economy could help speed up the fair transition ([97]).

([96]) EEA- Air Quality Health Risk Assessment

([97]) Based on the monitoring review of the Council Recommendation on ensuring a fair transition towards climate neutrality, which took place in October 2023.

The green transition of industry and the built environment, in particular decarbonisation, resource efficiency and circularity, is essential to boost France's competitiveness ([98]). In this regard, the priority for France lies in promoting the circular economy, in particular waste reuse and recycling.

Graph A9.1: **ETS emissions by sector since 2013**

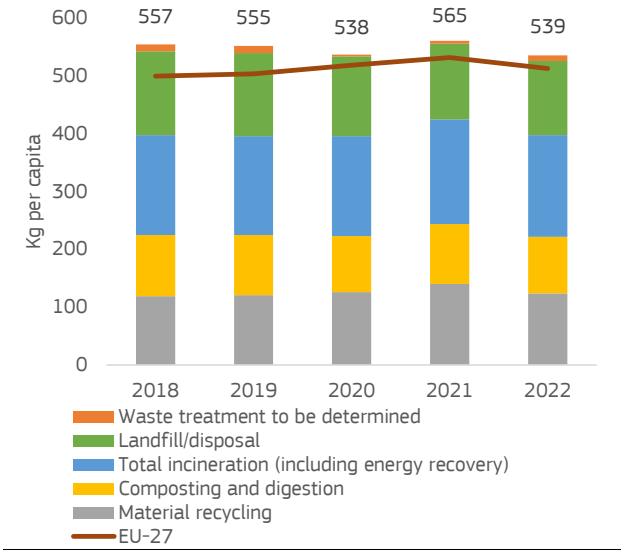


Source: European Commission

In 2023, the sectors covered by the EU emissions trading system (ETS) in France ([99]) emitted 27% less greenhouse gases than in 2019. In 2023, power generation in France caused 24% of all ETS-covered emissions, less than half the EU average share (57%). Of the total greenhouse gas emissions from all industry sectors, 26% came from the metals industry, 20% from cement and lime production, 19% from the chemical industry, and 15% from refineries. A diverse group of other industries accounted for 20% of France's industry greenhouse gas emissions ([100]). Between 2019 and 2023, France reduced greenhouse gas emissions of its ETS installations by 27%. This is composed by a 25% greenhouse gas emissions reduction in the power sector and an 32% reduction in the industry sectors. In the decade up until 2022, France's emissions reduction rate reached an early peak, with a 12% reduction between 2013 and 2014.

There is still room to make better use of the potential of the circular economy transition to improve the efficiency of the French industry. France is third in the EU for circular material use rate, which reached 19.3% in 2022. Resource productivity increased from 2.70 purchasing power standards per kilogram in 2018 to 3.2 in 2022, well above the EU average. France was dependent on imports for 36.1% of materials used in 2022, compared with an EU average of 22.4%, making the country comparatively more vulnerable to supply chain disruptions. Furthermore, water abstraction for manufacturing purposes accounted for 6.2% of total water abstracted in 2019, under the EU average of 9,2%.

Graph A9.2: **Treatment of municipal waste**



Source: Eurostat

Strong eco-innovation performance has helped to develop a highly competitive environmental goods industry. France is an eco-innovation leader according to the 2022 Eco-Innovation. As of September 2023, France totalled 386 awarded EU Ecolabel licences and 11 862 products with the EU Ecolabel, which makes France the third-best performer in the EU.

Although France is improving its recycling and composting activities, municipal waste generation remains above the EU average. Total waste production reached 4.6 tonnes per capita in 2020, slightly below the EU average of 4.8 tonnes. Municipal waste generation remained rather stable over the last 4 years. It was 539 kg/capita in 2022, 5% above the EU average (513 kg/capita). On waste management, as underlined in the Commission's early warning

([98]) See also Annexes 6, 7 and 12.

([99]) This analysis excludes air travel. For more details and the data sources, see Weitzel, M; van der Vorst, C. (2024), Uneven progress in reducing emissions in the EU ETS, JRC Science for policy brief, JRC138215, Joint Research Centre.

([100]) Greenhouse gas emissions classified as coming from 'other' sources appear to relate to steel production (20%), the chemical industry (5%), and power generation (6%).

Table A9.1: **Circularity indicators**

	2018	2019	2020	2021	2022	2023	EU-27	Latest year
Industry								
Resource productivity (purchasing power standard (PPS) per kilogram)	2.7	2.8	3.0	2.9	3.2	-	2.5	2022
Circular material use rate (%)	19.5	18.1	18.7	18.7	19.3	-	11.5	2022
Eco-innovation index (2013=100)	116.1	122.3	125.1	124.6	130.7	-	121.5	2022
Recycling of plastic packaging (%)	26.9	26.9	21.4	23.1	-	-	40.7	2021
Cost of air emissions from industry (EUR bn)	29.2	24.7	22.8	26.7	-	-	352.7	2021
Built environment								
Recovery rate from construction and demolition waste (%)	73.0	-	74.0	-	-	-	89.0	2020
Soil sealing index (base year = 2006)	103.5	-	-	-	-	-	103.4	2018
Non-residential floor area (m^2 per capita)	17.8	18.0	18.2	-	-	-	18.0	2020
Waste backfilled (%)	6.5	-	6.5	-	-	-	9.9	2020

Source: Eurostat, European Environment Agency

report on waste published on 8 June 2023 ([101]), France is at risk of missing the target of preparing 55% of municipal waste for reuse and recycling by 2025. France is also at risk of missing the target of recycling 65% of plastics packaging waste by 2025.

Government measures have helped reducing pollution from industry. The impact of particulate matter emissions from industry on air quality is lower than the EU average. The grams of PM10 emitted per economic output (EUR'10) ([102]) remained stable at 0.08 in 2021, versus an EU average of 0.09. In 2010-2021, the industrial sector reduced its emissions of main pollutants into the air. Positive results have been reported for industrial emissions into water as well, and nitrogen releases have decreased by 26%.

Despite some positive trends, France would benefit from improving construction and demolition waste management. Waste generated from construction and demolition activities per capita fluctuated well above the EU average between 2010 and 2020. The proportion of backfilling has remained stable since 2014 and stood at 6.5% in 2020. The recovery rate increased to 74% in 2020, achieving the Waste Framework Directive's target for 2020 (70%).

France has taken measures to optimise land artificialisation. In 2018, the soil sealing index ([103]) stood above the EU average, 109.2 versus 108.3. Land take mostly occurs in cities and their commuting zones. Arable land is the most affected ecosystem. To address this challenge, France adopted the ambitious but contested Zéro Artificialisation Nette Law on 20 July 2023. It aims to cut by half the consumption of agri and forest lands by 2030. Detailed implementation arrangements have yet to be determined.

The building stock could be used more efficiently. In 2023, France's building permits index, based on useful floor area, stood at 96.7 on average, a reduction by 5% compared to previous year ([104]), while the population increased by 2.4%. In 2020, France's residential floor area per capita increased to 53.8 m2, close to the EU average of 54.4 m^2. At 18.2 m^2 per capita, France's non-residential floor area is also close to the EU average 18 m^2.

France is taking steps to adapt its built environment to climate change. The country is a frontrunner when it comes to whole-life carbon approaches. A national simplified life cycle approach methodology for energy and whole-life carbon emissions of buildings ([105]) was integrated into France's 2020 buildings regulation (RE2020), which aims to reduce new buildings' climate impact.

([101])France — European Environment Agency (europa.eu).

([102])In 2010 prices.

([103])It measures the variation of soil sealing over the years, with 2006 as base (2006=100).

([104])2015=100.

([105])Developed together with the industry.

Digital transformation is key to ensuring a resilient and competitive economy. In line with the Digital Decade Policy Programme, and in particular with the targets in that Programme for digital transformation by 2030, this Annex describes France performance on digital skills, digital infrastructure/connectivity and the digitalisation of businesses and public services. Where relevant, it makes reference to progress on implementing the Recovery and Resilience Plan (RRP). France allocates 21.6% of its total Recovery and Resilience Facility budget to digital (EUR 8.7 billion) ([106]). Under Cohesion Policy, an additional EUR 1.9 billion (11% of the country's total Cohesion Policy funding) is allocated to the country's digital transformation ([107]).

The Digital Decade Policy Programme sets out a pathway for EU's successful digital transformation by 2030. France's national roadmap outlines the actions it intends to take to reach the objectives and targets at national level. The first Report on the State of the Digital Decade highlighted the need to accelerate and deepen the collective efforts to reach the EU-wide targets and objectives ([108]). Among others, a digitally skilled population increases the development and adoption of digital technologies and leads to productivity gains and new business models. It also leads to higher inclusion and participation in an environment increasingly shaped by the digital transformation ([109]). Digital technologies, infrastructure and tools all play a role in addressing the current structural challenges, including strategic dependencies, cybersecurity and climate change.

France is in line with the EU average in terms of digital skills, but it is still far from being among the EU front runners. It scores above the EU average for basic digital skills (60% for France, 56% for the EU) and matches the EU average for ICT specialists. An RRP measure supporting the acquisition of digital skills across the workforce is expected to help address some of the skills-related challenges, by increasing personal training budgets to develop digital skills for 20 500 employees.

France made considerable progress in digital infrastructure/connectivity. Coverage of fibre to the premises (FTTP) increased substantially, by 8 percentage points, standing at 81% in 2023 (compared to 64% in the EU). Coverage in rural areas also increased considerably, with an FTTP coverage at 65% against an EU average of 53%. The RRP supports the 'France Très Haut Débit' plan to accelerate the deployment of optical fibre across the whole country. The plan's objective is for everyone living in France (including in rural areas), by the end of 2025, to be able to access digital connectivity of more than 100 Mbit/s at home and at work. As regards mobile connections, overall 5G coverage increased to 93% (above the EU average of 89%), and 5G coverage on the 3.4-3.8 GHz spectrum band, which is essential for enabling advanced applications requiring large spectrum bandwidth, stands at 65% (above the EU average of 51%).

Overall, French companies are stalling in their use of digital technologies in business operations, and SMEs are lagging behind. Regarding the adoption of advanced technologies, as monitored in the Digital Decade, 45% of French enterprises adopted at least one of artificial intelligence, cloud or big data technologies, which is significantly below the EU average of 55%, notably for cloud. The share of small and medium-sized enterprises (SMEs) with at least basic digital intensity levels is also below the EU average (52% in France, 58% for the EU). In particular, only 12.7% of French SMEs sell online (at least 1% turnover), compared with an EU average of 19.1%. As part of its RRP, France plans to help small, medium and mid-tier companies to finance their digitalisation strategies. This includes an increased budget allocation for 'France Num' and support for digital investments. Moreover, as part of the fourth 'programme d'investissements d'avenir (PIA4)', the RRP includes innovation support programmes and activities to foster the research and innovation

([106])The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation.

([107])This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

([108])European Commission (2023): Report on the state of the Digital Decade 2023, 2023 Report on the state of the Digital Decade | Shaping Europe's digital future (europa.eu).

([109])See for example OECD (2019): OECD Economic Outlook, Digitalisation and productivity: A story of complementarities, OECD Economic Outlook, Volume 2019 Issue 1 | OECD iLibrary (oecd-ilibrary.org) and OECD (2019): Going Digital: Shaping Policies, Improving Lives – Summary, https://www.oecd.org/digital/going-digital-synthesis-summary.pdf.

ecosystem. These are focused on strategic technologies in key markets in which France considers it essential to be a global player (quantum computing, cybersecurity, artificial intelligence, cloud, etc.). France started to implement these innovation support programmes by publishing strategies in key areas and launching calls for projects and calls for interest. Regarding cybersecurity, in 2022, 2.4% of enterprises in France reported ICT service outage due to cyberattacks (e.g. ransomware attacks, denial of service attacks). Over the same year, 12.1% of enterprises developed or reviewed their ICT security policy within the previous 12 months.

France scores moderately on digitalisation of public services. France's performance on digital public services for citizens and businesses is below the EU average, but its share of e-government users is high (91%). The French Government has put forward a draft law that aims at improving digital public services (law for simplification and growth). This legislation would reinforce the 'tell-us-only-once principle' and will create a digital safe where companies will have access to their main administrative documents. Moreover, France has one electronic identification (eID) scheme notified under the eIDAS Regulation. France made good progress on the access to electronic health records, where it caught up with the EU average (score of 79), partly due to the new features of 'Mon Espace santé', introduced in 2023.

Table A10.1:**Key Digital Decade targets monitored by the Digital Economy and Society Index indicators**

	France			EU	Digital Decade target by 2030 (EU)
	2022	2023	2024	2024	
Digital skills					
At least basic digital skills	**62%**	**62%**	**60%**	**56%**	**80%**
% individuals	2021	2021	2023	2023	2030
ICT specialists ([1])	**4.5%**	**4.3%**	**4.7%**	**4.8%**	**20 million**
% individuals in employment aged 15-74	2021	2022	2023	2023	2030
Digital infrastructure/connectivity					
Fixed very high capacity network (VHCN) coverage	**63%**	**73%**	**81%**	**79%**	**100%**
% households	2021	2022	2023	2023	2030
Fibre to the premises (FTTP) coverage ([2])	**63%**	**73%**	**81%**	**64%**	**-**
% households	2021	2022	2023	2023	
Overall 5G coverage	**74%**	**89%**	**93%**	**89%**	**100%**
% populated areas	2021	2022	2023	2023	2030
Digitalisation of businesses					
SMEs with at least a basic level of digital intensity	**47%**	**NA**	**52%**	**58%**	**90%**
% SMEs	2021		2023	2023	2030
Data analytics	**NA**	**NA**	**34%**	**33%**	**-**
% enterprises			2023	2023	
Cloud	**25%**	**25%**	**23%**	**39%**	**-**
% enterprises	2021	2021	2023	2023	
Artificial intelligence	**7%**	**7%**	**6%**	**8%**	**-**
% enterprises	2021	2021	2023	2023	
AI or cloud or data analytics ([3])	**NA**	**NA**	**45%**	**55%**	**75%**
% enterprises			2023	2023	2030
Digitalisation of public services					
Digital public services for citizens	**69**	**71**	**72**	**79**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Digital public services for businesses	**80**	**79**	**79**	**85**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Access to e-health records	**NA**	**54**	**79**	**79**	**100**
Score (0 to 100)		2022	2023	2023	2030

(1) The 20 million target represents about 10% of total employment.
(2) The fibre to the premises coverage indicator is included separately as its evolution will also be monitored separately and taken into consideration when interpreting VHCN coverage data in the Digital Decade.
(3) At least 75% of EU enterprises have taken up one or more of the following, in line with their business operations: (i) cloud computing services; (ii) big data; (iii) artificial intelligence.

Source: Digital Economy and Society Index

This Annex provides a general overview of the performance of France's research and innovation system, which is essential for delivering the twin transition and ensuring long-term competitiveness.

France is a 'strong innovator', but its performance lead over the EU average is narrowing. According to the 2023 edition of the European Innovation Scoreboard ([110]), France's innovation performance is below the average of the EU's strong innovators (105.3% compared to 111.6%) and is decreasing over time (-1.6% between 2016 and 2023). Total R&D intensity fell to 2.18% in 2022, slightly below the EU average and moving further away from the target of 3% initially set for 2020.

After more than a decade of subdued public R&D investment, the Research Programming Law is expected to give fresh impetus to French research, but its effects will take time to accrue and may not be sufficient to reverse the trend. Between 2009 and 2022 there has been a slight but steady decline in public R&D intensity ([111]), which has been detrimental to the country's scientific performance. Notably, the share of France's scientific publications among the top 10% most cited publications worldwide has been on a slightly declining trend since 2010 and fell to 8.89% in 2020, below the EU average of 9.6%. To counteract this trend, the Research Law 2021-2030, whose implementation is a key deliverable under the French recovery and resilience plan (RRP), has set a budgetary path to gradually enhance public R&D funding until 2030 ([112]). While acknowledging that the trajectory embedded in the law is a good start for public reinvestment in research, the Senate warns, in its report on the research law's implementation, that the investment efforts undertaken in 2021-2022 have been largely absorbed by inflation ([113]). In addition, recent cuts to the 2024 budget for higher education and research risk weakening the law's ambition and impact.

Restoring the attractiveness of research careers remains a challenge. The proportion of public researchers in the population ([114]), which is at the level of the EU average, may seem somewhat modest in comparison to France's seemingly abundant pool of human resources for R&I (the country has the second-highest proportion of new science graduates in the EU). This reflects, in part, the deteriorating attractiveness of academic careers, which have become increasingly precarious over the last decade ([115]). Under the Research Law, important measures are being deployed with the aim of making research careers more attractive, notably through better remuneration and new recruitment channels, but it is too early to assess their impact.

Beyond the Research Programming Law, France recently announced additional measures aimed at clarifying and enhancing the efficiency of its public research system. To address the recommendations of the 'Gillet report' on the French R&I ecosystem ([116]), commissioned by the Higher Education and Research minister and delivered in June 2023, France announced in December 2023 that its research system will undergo a series of structural changes within the next 18 months. Notably, national research organisations will be given a stronger role in steering research programmes and structuring thematic research communities across the country, while universities will be granted greater autonomy. In addition, a Science Council has been set up to advise the President on R&I-related issues, thus placing science at the heart of decision-making.

Business R&D intensity remains stagnant and France's innovation performance is not on a par with the high level of public support for

([110])2023, European Innovation Scoreboard (EIS). The EIS provides a comparative analysis of innovation performance in EU countries, including the relative strengths and weaknesses of their national innovation systems.

([111])Defined as public gross domestic expenditure on R&D as a percentage of GDP.

([112])https://www.vie-publique.fr/loi/275347-loi-de-programmation-de-la-recherche-2021-2030-lppr

([113])http://www.senat.fr/rap/r21-766/r21-766.html.

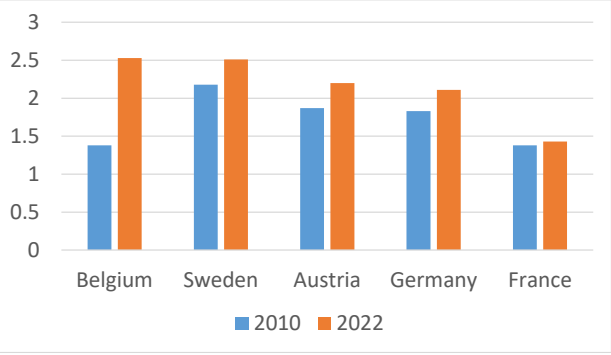
([114])4.2 researchers (FTE) employed by the public sector per thousand active population. Source: Eurostat.

([115])The age at which young researchers secure a stable position as researcher or lecturer has increased by more than 2 years over the last 13 years, while the age at which the doctoral degree is obtained has remained stable. (Source: L'état de l'emploi scientifique en France, rapport 2023, Ministère de l'Enseignement Supérieur et de la Recherche).

([116])https://www.enseignementsup-recherche.gouv.fr/fr/remise-du-rapport-de-la-mission-gillet-sur-l-ecosysteme-de-la-recherche-et-de-l-innovation-91274.

business innovation. Between 2012 and 2022, business R&D intensity remained stable at around 1.44%. So far, the large volume of public support for business innovation – which is the highest in the EU as a percentage of GDP and relies primarily on a tax credit scheme called *crédit impôt recherche* (CIR) – has not had a tangible effect on innovation output, as measured for example by patents. Instead, France's international patenting activity has steadily declined over the last decade and is now below the EU average. The evaluation of the CIR conducted by the National Commission for the Evaluation of Innovation Policies in 2021 showed that the scheme had positive effects on SMEs (both in terms of R&D activity and economic performance) but no significant effects on larger firms ([117]). Notwithstanding this, the CIR remains the support tool for business R&D which is the most popular among French firms ([118]) and no adjustments of its design seem to be envisaged.

Graph A11.1: **Business R&D expenditure (as % of GDP) 2010-2022 in top R&I performing countries**



Source: Eurostat

France is nurturing its dynamic start-up ecosystem, with an increasing focus on deep tech. France's favourable environment for start-ups is notably linked to the country's capacity to attract investors and, in particular, to the growing availability of venture capital over the last decade (venture capital investment as percentage of GDP has quadrupled over the last 10 years). According to a joint study by the EPO and the EUIPO, France is, together with Finland, the country with the highest share of start-ups filing IP rights (patents and trademarks), which, as the study argues, play an important role in facilitating access to finance for innovative start-ups ([119]). As part of France 2030, France is stepping up its efforts aimed at boosting the deep tech sector through the creation of 29 '*pôles universitaires d'innovation*' (to foster the transfer of research results between academia and industry) and a dedicated deep tech fund which will provide equity support to young innovative companies at different stages of their development.

Through France 2030, France is mobilising its R&I system to accelerate the twin transition and renew its economic fabric. The challenge-oriented investment plan 'France 2030', launched in 2021, will provide EUR 54 billion ([120]) to support the whole research-innovation continuum (from basic research to industrial deployment) and help new technology leaders emerge in key sectors. Part of the investments undertaken under France 2030 are included in the French RRP. Importantly, France 2030's investment logic is to spend 50% of its expenditure on decarbonising the economy and 50% on 'emerging' innovators, understood as companies with less than 12 years of activity or which are doing a radical turnabout, likely to foster disruptive innovation and the renewal of the productive fabric. The interim evaluation of France 2030, published in June 2023, highlights the major macroeconomic effects that this investment plan is expected to have (on GDP and employment notably) but recommends stronger prioritisation of the investments to maximise their impact ([121]).

([117]) https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-2021-rapport-cnepi-cir-juin.pdf.

([118]) https://www.comite-richelieu.org/wp-content/uploads/2023/11/231120_ObservInnov.pdf.

([119]) https://www.euipo.europa.eu/fr/publications/2023-startup-finance.

([120]) Including EUR 20 billion from the fourth Investments for the Future programme, merged with France 2030.

([121]) Le Comité de surveillance des investissements d'avenir présidé par Patricia Barbizet a rendu au Gouvernement son rapport sur France 2030 | info.gouv.fr.

Table A11.1:**Key innovation indicators**

France	2010	2015	2020	2021	2022	EU average (1)
Key indicators						
R&D intensity (Gross domestic expenditure on R&D as % of GDP)	2.18	2.23	2.27	2.22	2.18	2.24
Public expenditure on R&D as % of GDP	0.78	0.75	0.74	0.71	0.70	0.73
Business enterprise expenditure on R&D (BERD) as % of GDP	1.38	1.44	1.49	1.46	1.43	1.48
Quality of the R&I system						
Scientific publications within the top 10% most cited publications worldwide as % of total publications	10.2	9.7	8.89	:	:	9.6
Patent Cooperation Treaty (PCT) patent applications per billion GDP (in PPS)	4,1	4.2	3.3	:	:	3.4
Academia-business cooperation						
Public-private scientific co-publications as % of total publications	7.7	8.4	8.7	9	9	7.6
Public expenditure on R&D financed by business enterprise (national) as % of GDP	0.034	:	0.034	0.032	:	0.054
Human capital and skills availability						
New graduates in science & engineering per thousand pop. aged 25-34	:	20.9	24.1	25	:	16.9
Public support for business enterprise expenditure on R&D (BERD)						
Total public sector support for BERD as % of GDP	0.42	:	0.451	0.446	:	0.204
R&D tax incentives: foregone revenues as % of GDP	0.278	0.282	0.294	0.284	:	0.104
Green innovation						
Share of environment-related patents in total patent applications filed under PCT (%)	15.2	15.0	:	:	:	14.7
Finance for innovation and economic renewal						
Venture capital (market statistics) as % of GDP	0.029	0.033	0.075	0.094	0.114	0.085
Employment share of high growth enterprises measured in employment (%)	:	9.52	7.29	:	:	12.51

Source: Eurostat, OECD, DG JRC, Science-Metrix (Scopus database and EPO's Patent Statistical database), Invest Europe

(1) EU average for the last available year or the year with the highest number of country data.

Source: Eurostat, OECD, DG JRC, Science-Metrix (Scopus database and EPO's Patent Statistical database), Invest EU

French competitiveness remains fragile. The International Institute for Management Development ([122]) ranks France 33rd out of 64 economies in its competitiveness ranking, which is five places below last year. According to the same source, France's main weaknesses are in tax policy and public finances. Its strengths are high direct investment flows and infrastructure. France's position on infrastructure is nevertheless declining, which might be explained by the low level of net public investment. Although gross public investment is high in France compared to the EU average (4.3% of GDP in 2023 vs. 3.5 % in the EU), net public investment represented only 0.6% of France's GDP in 2023, far below the EU average (1.2%) (see Table A12.1).

Compared to the Euro Area average, France's relatively worse export performance over the last two decades has widened since the Covid-19 crisis. This is partly due to a temporary drop in the production of France's export-oriented sectors (e.g. aeronautics, shipbuilding and tourism) because of the pandemic crisis. However, despite the recent recovery of these sectors, and although price competitiveness indicators following both the COVID-19 and the energy crises have not shown any substantial deterioration compared to European peers ([123]), France has not regained its 2019 export market shares. Since 2019, France's share in euro area exports decreased by 0.9 percentage points for goods and services (-1 point for goods, and -0.6 points for services) ([124]).

Containing production costs is key to maintaining France's price competitiveness. According to France's national productivity board ([125]), over the last few decades France's low competitiveness has been mainly due to rising production costs rather than unfavourable specialisation. Faced with rising costs, many firms have moved their production sites abroad. Employment in the foreign industrial subsidiaries of French groups corresponds to 68% of employment in the industrial sector in France, compared to 35% in Germany, 27% in Italy and 10% in Spain.

Over the last few years, France has taken measures to rein in production costs. To keep labour costs down and boost employment, France has reduced employers' social security contributions on low wages. However, although France's hourly labour costs increased less than in the euro area between 2013 and 2019, they are still among the highest in the EU (EUR 40.8 per hour in France against EUR 30.5 in the EU in 2022) ([126]), especially in the construction and service sectors. France also lowered the corporate tax rate and taxes on production. Nevertheless, the combined (central and sub-central government) statutory corporate income tax rate, now at 25.8%, is higher than in most EU countries ([127]) and the production taxes are still much higher in France than in neighbouring countries.

While France's labour productivity remains higher than the EU aggregate productivity, it has grown at a slower pace than the latter since the 2000s and has dropped since 2019. Over the last two decades and until 2019, France's real labour productivity grew in line or slightly faster than that of peer countries, but more slowly than the EU aggregate labour productivity. It decreased from around 135% of the EU aggregate in the early 2000s to 126% in 2019 ([128]). After the outbreak of the COVID-19 crisis, France's labour productivity declined and fell to around 117% of the EU aggregate in 2023. This evolution of labour productivity took place amid very low total factor productivity growth on average, which started to diverge from the euro area aggregate in 2019 (see Graph A.12.1).

([122])IMD, World Competitiveness Ranking – France, 6/2023.

([123])See in-depth review for France, European Commission, SWD(2024) 100 final

([124])Rexecode, bilan compétitivité France 2023, 1/2024.

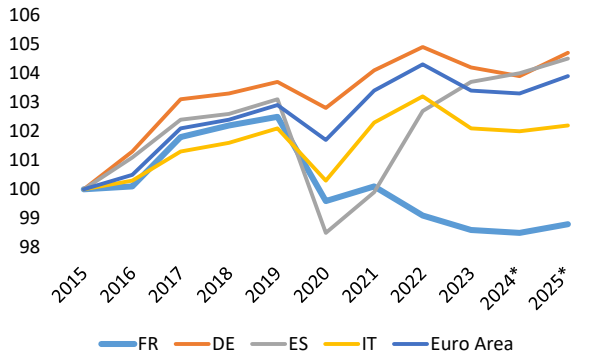
([125])Conseil national de productivité, Productivité et compétitivité, 5/2022.

([126])Eurostat, labour cost levels by NACE

([127])OECD, tax database, Table II.1 statutory corporate income tax.

([128])Eurostat, GDP per hour worked in purchasing power standard.

Graph A12.1: **Total factor productivity (index 100 in 2015)**



Source: EC, Ameco.

France's structural weaknesses have dampened labour productivity growth. Structural weaknesses include the lack of skills and skills mismatches (see Annex 14), the lack of digitalisation among small and medium-sized enterprises (SMEs) (see Annex 10), stagnating business R&D intensity (see Annex 11) and a regulatory framework that impedes competition in services (see below).

Since 2019, factors that contributed to dynamic employment growth have also weighed on productivity. They include less qualified employees entering the job market, the development of apprenticeships, labour hoarding in sectors hit by recent crises and the effect of COVID support policies, such as the partial unemployment schemes and measures to avoid bankruptcies. According to Banque de France ([129]), some of these factors will have long-lasting effects on labour productivity. However, Banque de France and the National Productivity Board ([130]) highlight that less qualified employees entering the job market and the development of apprenticeships, even though they weigh on productivity, increase the employment rate and are likely to increase potential output in the medium term.

Firms are less exposed to global shocks than in 2022. Energy prices are falling, and supply chain disruptions are becoming less frequent, even though the situation has not returned to pre-COVID times. The share of firms facing constraints linked to material shortages fell from 42.6% in 2022 to 26.5% in 2023 (EU average 17.2%) (see Table A12.1). These shortages harm industries with a high share of material inputs such as automotive, aerospace, defence and consumer goods ([131]). On critical raw materials, France's import concentration index is in line with the EU average (see Table A12.1). France has adopted a national strategy to reduce its dependency on critical raw materials. In addition, the France 2030 investment plan comprises various calls for projects targeting critical raw materials with a budget of EUR 1 billion.

France attracts the highest number of foreign direct investment projects in the EU. With 1 259 locations or extensions announced in 2022, France maintained first place in the European ranking of EY ([132]) for the fourth year running. In 2022, 4 out of 10 projects were a plant location or extension. According to industrial leaders, the availability of decarbonised energy and a skilled workforce are France's main assets, while the lack of industrial land and flexibility in environmental and urban planning regulations are the main weakness.

Business investment is holding up, but SMEs' investments in innovation and in the twin transition are still insufficient. In 2023, net private investment represented 4.2% of France's GDP, which was above the EU average (3.8%) (see Table A12.1), but business expenditure on R&D only reached 1.43% of GDP in 2022, which is slightly below the EU average (1.48%) (see Annex 11). According to the 2023 EIB Investment Survey ([133]), 83% of French firms invested in the last financial year, a share in line with the EU average (85%). However, only 30% of French firms (99.8% of which are SMEs) invested to develop new products, processes and services, which is one of the lowest shares in the EU. In addition, only around 40% of them invested in measures to improve energy efficiency. This share is much higher than the year before, but still smaller than in most other EU Member States. On digitalisation, French SMEs are still lagging behind the EU average (see Annex 10).

([129])Banque de France, projections économiques, encadré 2, 12/2023.

([130])Conseil national de productivité, Bilan des crises, 10/2023.

([131])France's supply chain and Roland Berger, Les enjeux stratégiques des opérations en 2021, 2021.

([132])EY, Baromètre EY de l'attractivité de la France, May 2023.

([133])EIB Investment Survey 2023, EU overview, 10/2023.

SMEs could better exploit the single market opportunities to grow. Intra-EU imports and exports as a share of GDP have been declining slightly for several years. This share is now the lowest in the EU with 18.5% of GDP (against 42.9% on average for EU Member States) (see Table 12.1). In the industry, only 6.2% of French SMEs export goods to other EU Member States (EU average: 15.9%) ([134]). Only 7% of French SMEs have tried to hire people from other Member States, a share twice as small as the EU average ([135]). In August 2023, France launched a plan to help businesses export ([136]).

Labour and skills shortage are one of the main barriers to investment. When asked about long-term barriers to investment in 2023 ([137]), French firms pointed to the lack of available staff (83% vs 81% in the EU). While skills and labour shortages persist in most sectors of the economy (see Annex 14), difficulties in finding employees with the right skills is the biggest problem for French SMEs ([138]). 45% of them find it very difficult to find and hire staff with the right skills (against 38% in the EU). In industry, the lack of staff is cited as the main barrier to investing in decarbonisation products ([139]). The massive investments in battery manufacturing will further increase the skills needed.

Access to finance remains satisfactory, although businesses suffer from the rise in interest rates. On loans, France's EIF SME Access to Finance Index remains well above the EU average (0.72 against 0.49) ([140]). However, French businesses have suffered from the rise in interest rates (see Annex 18). In October 2023, 10.6% of SMEs said that they did not access the loan requested either because it was rejected by the bank or because they withdrew their request due to too high interest rates. This represents a share much higher than in 2021 (2.7%) and 2022 (6.1%) and is higher than the EU average (10.2%) ([141]). On equity, France is now above the EU average (0.24 against 0.17). Venture capital investment represented a higher share of GDP in France than in the EU in 2022 (0.114% against 0.085%). It has allowed France to develop a dynamic start-up system (see Annex 11).

Late payments continue to disrupt SME cash flows and hinder their ability to invest. The share of SMEs experiencing late payment is higher in France than in the rest of the EU (57.4% against 48.9%) ([142]). The business-to-business payment gap in 2023 remained the same as in 2022 (17 days), above the EU average of 15 days ([143]) (see Table A12.1). The payment gap from the public sector dropped from 23 days in 2022 to 18 days in 2023, but is still above the EU average (16 days). Despite the reduction in the payment gap from the public sector, the payment gaps from public health bodies and from local authorities tend to increase ([144]), significantly affecting SMEs.

France provides substantial funding to support business investment and innovation. According to the OECD ([145]), France's industrial policy expenditure amounted to EUR 99.4 billion (bn) in 2021, 4% of its GDP ([146]). It was significantly higher than in comparable countries. France is the Member State that devotes the highest share of its GDP to support business innovation (see Annex 11). In addition, France is implementing France 2030, an investment program worth EUR 54bn ([147]) over 5 years, to support investment in key sectors of the economy.

([134])European Commission, 2023 SME factsheet- France.

([135])European Commission, Eurobarometer 537, SMEs and skills shortages, country factsheet France,

([136])France diplomatie, lancement du plan « Osez l'export », 31/08/2023

([137])EIB Investment Survey 2023, EU overview, 10/2023.

([138])European Commission, Flash Eurobarometer 537, SMEs, and skills shortages, 11/2023.

([139])Wavestone, Baromètre de l'industrie 4.0, 26/10/2023.

([140])European Investment Fund, EIF SME access to finance index, 2023, 2023.

([141])European Commission and European Central Bank, 2023 SAFE survey, question Q7Ba) Survey conducted between September and October 2023.

([142])European Commission and European Central Bank, 2023 SAFE survey.

([143])Intrum, European payment report 2023

([144])Banque de France, Rapport de l'observatoire des délais de paiements 2022, 6/2023.

([145])OECD, Quantifying Industrial strategy, France factsheet.

([146])This includes the tax credit for competitiveness and employment (*Crédit d'Impôt compétitivité et emploi)* (0.29% of GDP), which has been replaced by a reduction in employers' social security contributions.

([147])including EUR 20bn from "Programme d'investissements d'avenir"

France helps the green industry by simplifying permitting and unlocking investments. In October 2023, France adopted a law for green industry. The law aims to speed up the permitting procedures to build factories, improve the procedures for industrial land planning and brownfield regeneration, boost private financing for low-carbon projects and better consider environmental criteria in public procurement procedures. In addition, France has set up a EUR 2.9 bn tax credit scheme to support the manufacturing of clean tech industries. France is ranked 6th out of 32 countries in the world for its net zero readiness ([148]).

France is accelerating the deployment of renewable energy sources, but more needs to be done. On 10 March 2023, the country adopted a law to accelerate the deployment of renewable energy sources. This law simplifies the permitting procedures with the objective of halving the time needed by the administration to authorise renewable energy projects. However, there is still a need for clear and accelerated deadlines for projects outside the acceleration zones introduced in the new law (see Annex 7). In addition, France is still lagging behind on the introduction of a one-stop shop for renewable energy permitting.

France strives to reduce the administrative burden on businesses, which is still perceived as heavy. Despite the ESSOC ([149]), PACTE ([150]) and ASAP ([151]) laws, 49% of businesses find that the complexity of administrative procedures is a very serious problem (against 33% in the EU) ([152]). One of the reasons for this perception is that, despite simplification of the body of rules and procedures, new rules and procedures are added. Furthermore, the change of procedure required by the simplification, if badly implemented, can temporarily complicate the lives of businesses. For instance, the single point for businesses' administrative procedures, created in early 2023 under the PACTE Law, has not worked properly in its first few months and has caused serious problems for businesses. On 24 April 2024, the government tabled a bill of law for the simplification of economic life.

Regulatory restrictions remain high in several regulated professions. This is the case for accountants and tax advisers, patent agents, estate agents and architects. These restrictions take mostly the form of shareholding requirements and company form restrictions. Exclusive rights for accountants and tax advisers remain broad, harming the development of innovative services. The long duration of the mandatory qualification for estate agents could be an obstacle for new market entrants. For lawyers – the most regulated profession in the EU–, regulatory restrictions are only slightly below the EU average ([153]). On 8 February 2023, France adopted an ordinance ([154]) to clarify and simplify provisions applicable to professional companies.

In the retail sector, as reflected in the Retail Restrictiveness Indicator ([155]), France has higher restrictions on the operations and the establishment of retail shops in 2022 compared to 2018. Such restrictions have been introduced by certain provisions of ELAN ([156]), PACTE, climate and resilience ([157]) and EGalim laws. According to the recent update of the indicator, France is the most restrictive Member State when it comes to retail regulatory frameworks. The main objective of the EGalim laws (EGalim 1 in 2018, EGalim 2 in 2021, EGalim 3 in 2023 and the law of 17 November 2023 against inflation of consumer products) is to rebalance negotiating power along the food supply chain to provide a fair remuneration to farmers. EGalim 3 seems to negatively impact the operations of European retail alliances, which are an important element of competition along the supply chain, in particular in terms of their capability to lead to lower retail prices for products that consumers buy daily.

([148])KPMG, Net zero readiness index.

([149])Law n° 2018-727 of 10 August 2018.

([150])Law n° 2019-486 of 22 May 2019.

([151])Law n° 2020-1525 of 7 December 2020.

([152])European Commission, Flash eurobarometer 507, report p.58, Fieldwork: April 2022.

([153])European Commission, Communication on updating the reform recommendations for regulation in professional services, COM(2021)385. 9/7/2021.

([154])Ordonnance n° 2023-77 du 8 février 2023 relative à l'exercice en société des professions libérales réglementées.

([155])European Commission, Retail restrictiveness indicator (2022 update).

([156])Law n° 2018-1021 of 23 November 2018.

([157])Law n° 2021-1104 of 22 August 2021.

France has mixed results regarding compliance with single market rules. It implements directives on time, but the percentage of directives transposed incorrectly is slightly above the EU average. The duration of the infringement procedures is increasing and is one of the longest in the EU ([158]). Regarding SOLVIT, an informal problem-solving network of the European Commission and the Member States, France solved 85.8% of the 432 cases it handled as lead centre, below the EU average of 88.3%. The time necessary to handle the cases is extremely long and shows the need for more staff in France's SOLVIT centre.

France is in the preliminary stage of implementing the components needed to connect to the 'Once-Only' Technical System (OOTS) ([159]). As part of the Single Digital Gateway Regulation ([160]), the system will enable the automated exchange of evidence between competent authorities, improving online access to information, administrative procedures and assistance within the EU. The onboarding of French competent authorities is crucial for the system to function smoothly and to reduce administrative burden.

([158])European Commission, Single Market Scoreboard

([159])Implementing Regulation (EU) 2022/1463.

([160])Regulation (EU) 2018/1724.

Table A12.1:**Industry and the Single Market**

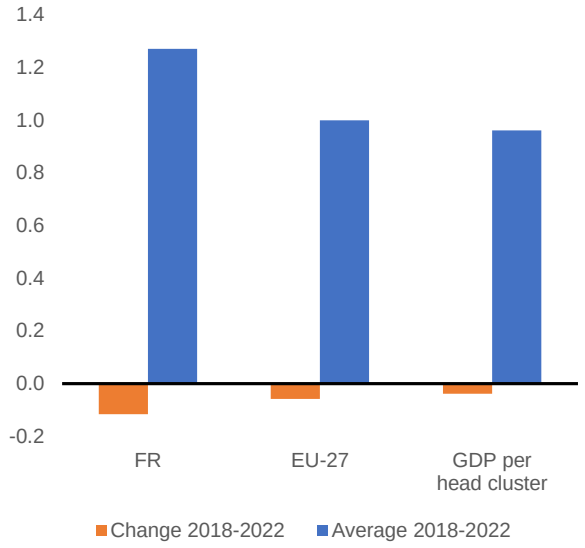
France							
POLICY AREA	**INDICATOR NAME**	**2019**	**2020**	**2021**	**2022**	**2023**	**EU27 average***
HEADLINE INDICATORS							
Economic Structure	Net Private investment, level of private capital stock, net of depreciation, % GDP[1]	4,6	3,1	4,7	4,8	4,2	**3,8**
	Net Public investment, level of public capital stock, net of depreciation, % GDP[1]	0,4	0,2	0,3	0,3	0,6	**1,2**
	Real labour productivity per person in industry (% yoy)[2]	-1,3	-8,2	2,9	-3	0,3	**-1,24**
Cost competitiveness	Nominal unit labour cost in industry (% yoy)[2]	-2,5	3	2,4	6,9	4,1	**9,83**
SINGLE MARKET							
Single Market integration	EU Trade integration, % (Average intra-EU imports + average intra EU exports)/GDP[2]	16,8	15,2	16,8	19,8	18,5	**42,9**
Compliance	Transposition deficit, % of all directives not transposed[3]	0,3	0,3	0,6	0,3	0,1	**0,7**
	Conformity deficit, % of all directives transposed incorrectly[3]	1,4	1,7	1,5	1,4	1,3	**1,1**
	SOLVIT, % resolution rate per country[3]	95,7	89,2	82,5	88,0	86,0	**88,3**
	Number of pending infringement proceedings[3]	32	34	39	39	31	**25,9**
Restrictions	EEA Services Trade Restrictiveness Index[4]	0,07	0,07	0,07	0,07	0,07	**0,05**
Public procurement	Single bids, % of total contractors[3]	19	18	19	22	22	**28,6**
	Direct Awards, %[3]	2	3	2	2	2	**8,1**
ECONOMIC STRUCTURE							
Shortages	Material Shortage (industry), firms facing constraints, %[5]	18,1	15,5	31,3	42,6	26,5	**17,2**
	Labour Shortage using survey data (industry), firms facing constraints, %[5]	13,6	9,7	10,7	19,3	19,8	**23,3**
	Vacancy rate, % of vacant posts to all available ones (vacant + occupied)[2]	-	-	-	-	-	**2,5**
Strategic dependencies	Concentration in selected raw materials, Import concentration index based on a basket of critical raw materials[6]	0,17	0,16	0,17	0,19	0,22	**0,22**
	Installed renewables electricity capacity, % of total electricity produced[2]	0,4	0,4	0,4	0,4		**50**
BUSINESS ENVIRONMENT - SMEs							
Investment obstacles	Impact of regulation on long-term investment, % of firms reporting business regulation as major obstacle[7]	24,9	21,9	21,3	16,0	18,0	**22,2**
Business demography	Bankruptcies, Index (2015=100)[2]	80,7	48,9	43,1	65,8	89,3	**105,6**
	Business registrations, Index (2015=100)[2]	153,2	160,2	185,9	188,2	186,6	**120,2**
Late payments	Payment gap - corporates B2B, difference in days between offered and actual payment[8]	-	15	11	17	17	**15**
	Payment gap - public sector, difference in days between offered and actual payment[8]	-	13	9	23	18	**16**
	Share of SMEs experiencing late payments in past 6 months, %[9]	50,8	43,9	43,5	47,3	57,3	**48,7**
Access to finance	EIF Access to finance index - Loan, Composite: SME external financing over last 6 months, index values between 0 and 1[10]	0,76	0,83	0,85	0,72	-	**0,49**
	EIF Access to finance index - Equity, Composite: VC/GDP, IPO/GDP, SMEs using equity, index values between 0 and 1[10]	0,36	0,13	0,20	0,24	-	**0,17**

Source: (1) AMECO, (2) Eurostat, (3) Single Market Scoreboard, (5) ECFIN BCS, (6) COMEXT and Commission calculations, (7) EIB Investment Survey, (8) Intrum Payment Report, (9) SAFE survey, (10) EIF SME Access to Finance Index

* Own Commission calculations for the EU27 average

France's public administration is essential for the economy's competitiveness by, in particular, shaping the conditions for the twin transitions and creating a favourable business environment. Despite the falling trend in recent years, France ranks above the EU average for the perception of government effectiveness (Graph A13.1). The government has implemented several measures to reform the civil service, improve the digitalisation of its public services and prepare the public administration to lead and drive the green transition.

Graph A13.1: **Government effectiveness**



Average value over 2018-2022 and change over 2018-2022. The GDP per head bar shows the mean value of the government effectiveness indicator for the group of EU countries belonging to the same GDP per head cluster as France (EU countries are ranked in terms of their GDP per head and grouped into three equally sized clusters).
Source: Worldwide Governance Indicators.

France has taken measures to tackle the challenges facing its civil service. The government is working to increase the attractiveness of the civil service through the development of a state employer brand, the overhaul of the single recruitment portal (*Place de l'emploi public*), changing the recruitment modalities to access civil service positions through new competitions, increasing the number of young apprentices, developing coaching and mentoring for equal opportunities and supporting young talent across the country. The cross-cutting reform of the senior civil service, set out in the recovery and resilience plan (RRP), is ongoing and covers recruitment methods and changing senior government officials' career pathways.

Some progress has been made on gender parity in senior civil service positions (Table A13.1). France adopted a law to increase the quota of women in senior positions to 50%, previously set at 40% in the Sauvadet Law. The law will enter into force in state and hospital administrations on 1 January 2026 and in local administrations in 2026 and 2028. Despite narrowing over the past 10 years, in 2021 the gender gross pay gap for civil servants was 14% ([161]). The government has set up an occupational equality index between men and women in the national civil service to monitor and reduce this gap.

France has taken further action to equip its public administration with the tools and skills to tackle the green transition. Measures to improve the energy performance of public buildings are accompanied by a plan to train 25 000 senior government officials on topics related to green transition by the end of 2025. Training will focus on the causes and consequences of the three crises (climate, natural resources and biodiversity) and how civil servants can act individually and collectively to address the green transition challenges.

The maturity of France's digital public services is slightly below the EU average (Table A13.1 and Annex 10). However, it scores well above the EU average for individual's interaction with the government through websites. To improve access to digital services, including the France Connect platform, the government has deployed digital identity cards, as part of its (RRP).

The mandate of France's independent fiscal institution, as measured by the Commission's scope index of fiscal institutions' (SIFI) index, is narrower than in most other EU countries. Areas for improvement include the capacity to monitor all the fiscal rules for the general government and perform a long-term sustainability analysis (Graph A13.2).

The efficiency of the justice system still faces challenges. However, after a significant

([161])See the annual report on the status of civil service, published by DGAFP, available at https://www.fonction-publique.gouv.fr/toutes-les-publications/ecart-de-remuneration-entre-les-femmes-et-les-hommes-fonctionnaires-dans-la-fonction-publique-de-letat-en-2021

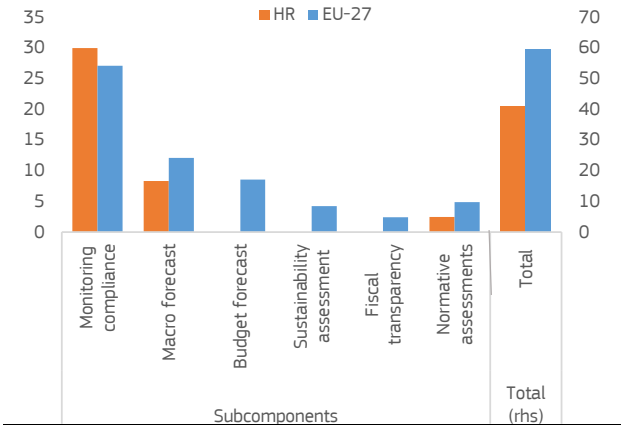
Table A13.1:**Public administration indicators**

FR	Indicator ([1])	2019	2020	2021	2022	2023	EU-27([2])
E-government and open government data							
1	Share of internet users within the last year that used a public authority website or app	n/a	n/a	n/a	90.0	90.8	75.0
2	E-government benchmark overall score ([3])	n/a	71.6	69.7	69.7	73.6	75.8
3	Open data and portal maturity index	0.9	0.9	1.0	1.0	1.0	0.8
Educational attainment level, adult learning, gender parity and ageing							
4	Share of public administration employees with higher education (levels 5-8, %)	41.1	42.2	45.1 (b)	48.1	48.6	52.9
5	Participation rate of public administration employees in adult learning (%)	25.5	15.3	13.6 (b)	17.0	18.1	17.9
6	Gender parity in senior civil service positions ([4])	42.8	38.6	37.8	37.8	29.0	9.2
7	Ratio of 25-49 to 50-64 year olds in NACE sector O	1.6	1.6	1.5 (bd)	1.6 (d)	1.5	1.5
Public financial management							
8	Medium-term budgetary framework index	0.8	0.8	0.8	0.8	n/a	0.7
9	Strength of fiscal rules index	0.8	0.8	0.8	1.4	n/a	1.4
Evidence-based policy making							
10	Regulatory governance	n/a	n/a	1.89	n/a	n/a	1.7

([1]) High values denote a good performance, except for indicator # 6. ([2]) 2023 value. If unavailable, the latest value available is shown. ([3]) Measures the user centricity (including for cross-border services) and transparency of digital public services as well as the existence of key enablers for the provision of those services. ([4]) Defined as the absolute value of the difference between the percentage of men and women in senior civil service positions.
Flags: (b) break in time series; (d) definition differs; (u) low reliability.
Source: E-government activities of individuals via websites, Eurostat (# 1); E-government benchmark report (# 2); Open data maturity report (# 3); Labour Force Survey, Eurostat (# 4, 5, 7); European Institute for Gender Equality (# 6); Fiscal Governance Database (# 8, 9); OECD Indicators of Regulatory Policy and Governance (# 10).

increase in 2020, the estimated time needed to resolve cases decreased in 2022, in particular at first instance (297 days for civil, commercial, administrative and other cases and 333 days for litigious civil and commercial cases). The quality of the justice system is good overall. The lack of staff does remain a challenge, but significant investments and initiatives aim to tackle this (a recently adopted law provides for additional posts in the judiciary). The level of digitalisation needs improvement, but investments are being made to address this. On judicial independence, no systemic deficiencies have been reported ([162]).

Graph A13.2: **Scope index of independent fiscal institutions**



(1) 2022 data. Rhs: right hand side.
Source: European Commission

([162])For a more detailed analysis of the performance of the French justice system, see the 2024 EU Justice Scoreboard (forthcoming) and the country chapter on France in the Commission's 2024 Rule of Law Report (forthcoming).

ANNEX 14: EMPLOYMENT, SKILLS AND SOCIAL POLICY CHALLENGES IN LIGHT OF THE EUROPEAN PILLAR OF SOCIAL RIGHTS

The European Pillar of Social Rights is the compass for upward convergence towards better working and living conditions in the EU. This Annex provides an overview of France's progress in implementing the Pillar's 20 principles and the EU headline and national targets for 2030 on employment, skills and poverty reduction.

Table A14.1:**Social Scoreboard for FRANCE**

Policy area	Headline indicator	
Equal opportunities and access to the labour market	Adult participation in learning (during the last 12 months, excl. guided on the job training, % of the population aged 25-64, 2022)	49.2
	Early leavers from education and training (% of the population aged 18-24, 2023)	7.6
	Share of individuals who have basic or above basic overall digital skills (% of the population aged 16-74, 2023)	59.7
	Young people not in employment, education or training (% of the population aged 15-29, 2023)	12.3
	Gender employment gap (percentage points, population aged 20-64, 2023)	5.5
	Income quintile ratio (S80/S20, 2022)	4.6
Dynamic labour markets and fair working conditions	Employment rate (% of the population aged 20-64, 2023)	74.4
	Unemployment rate (% of the active population aged 15-74, 2023)	7.3
	Long term unemployment (% of the active population aged 15-74, 2023)	1.8
	Gross disposable household income (GDHI) per capita growth (index, 2008=100, 2022)	108.8
Social protection and inclusion	At risk of poverty or social exclusion (AROPE) rate (% of the total population, 2022)	21
	At risk of poverty or social exclusion (AROPE) rate for children (% of the population aged 0-17, 2022)	27.5
	Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP, 2022)	42.01
	Disability employment gap (percentage points, population aged 20-64, 2022)	20.8
	Housing cost overburden (% of the total population, 2022)	6.5
	Children aged less than 3 years in formal childcare (% of the under 3-years-old population, 2022)	56.2
	Self-reported unmet need for medical care (% of the population aged 16+, 2022)	3.2

Critical situation | To watch | Weak but improving | Good but to monitor | On average | Better than average | Best performers

Update of 25 April 2024. Members States are categorised based on the Social Scoreboard according to a methodology agreed with the EMCO and SPC Committees. Please consult the Annex of the Joint Employment Report 2024 for details on the methodology.
Source: Eurostat

In a context of high inflation, economic activity in France slowed down in 2023. Following the strong recovery after the COVID-19 pandemic, the French employment rate (20-64 age group) has reached a plateau (74.4%, close to the EU average of 75,3% in 2023), including for young people (aged 15-24; 35,2% on par with the EU average in 2023'. Despite the overall improvement, the unemployment rate and labour market slack were both above the EU average (respectively 7.6% vs 6.1% in Q4-2023 and 14.7% vs 11.9%% in Q4-2023). At the same time, the rates for both youth unemployment and for those not in employment, education or training (NEETs) have continued to improve, while remaining above the EU average, although they are significantly higher in the outermost regions.

The employment situation of under-represented groups remains a structural challenge. The employment gap is significantly higher than the EU average for the low-skilled (21 percentage points (pps) vs 17 pps in 2023) and for people born outside the EU (12.1 pps vs 7.6 pps). Among the latter, women are at a particular disadvantage, with a high employment gap compared to French-born women (18.3 pps). Some of the difficulties faced by those born outside the EU also affect second and third generations. Persons with a migrant background tend to be over-represented among workers with fixed-term contracts (17.2% compared to 14.2% for people without a migrant background in 2021) ([163]). The labour market challenges faced by under-represented groups are also fuelled by inequalities in the education system ([164]). The socio-economic and migrant backgrounds on educational outcomes continue to have a significant impact ([165]) (see Annex 15).

To address these challenges, reforms have been introduced to increase labour market participation and to improve the quality of jobs. To reduce the comparatively high share of fixed term contracts (14.5% vs. 12.9% at EU level in 2022), a first reform of the unemployment insurance was implemented between 2019 and 2021. The reform changed the calculation of unemployment benefits to discourage series of very short-term contracts and introduced a modulation of unemployment employer's contributions to disincentivise the abuse of very short-term contracts in sectors most affected. The impact of these measures is currently being assessed and requires close monitoring ([166]). In

([163])DARES, "Quelles situations sur le marché du travail des immigrés et des descendants d'immigrés en 2021?", Analyses, n°15, mars 2023.

([164])DARES, Quels sont les métiers des immigrés ?,Analyses n°36, July 2021.

([165])OECD, PISA 2022 Results (Volume I): The State of Learning and Equity in Education, PISA, OECD Publishing, 2023.

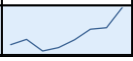
([166])DARES, "Rapport intermédiaire du comité d'évaluation de la réforme de l'assurance chômage initiée en 2019", février 2024.

parallel, eligibility conditions have been made stricter. Since February 2023, new rules adjusted the duration of unemployment benefits to the economic cycle (labour market outcomes) to incentivise a faster return to work when vacancy rates are high. A comprehensive reform, "France Travail", has been implemented since 1 January 2024 to improve the functioning of the French public employment service, including the creation of an employment network providing a better integration of employment and social services.

Skills and labour shortages persist in most sectors of the French economy. While the lack of skilled workers is one of the main barriers to recruitment, especially in the ICT sector, in others, such as the home care, catering and construction sectors, labour shortages also appear to be linked to working conditions ([167]). In the green economy, labour shortages are especially strong in the building and transport sectors (see Annex 8). Together with the low levels of employment of some groups and other challenges, skills and labour shortages undermine France's potential to improve its economic competitiveness. Indeed, one of the main barriers to business investment has been the lack of available staff (see Annex 12). The skills investment plan and the plan to reduce recruitment pressures are investing in the upskilling and reskilling of the workforce, complemented by training measures co-financed by the ESF+ and the recovery and resilience plan. While participation in adult learning remains above the EU average, there is scope for further targeted investments in the vocational education and training system.

Poverty risks have been increasing, bringing France further away from its 2030 national poverty reduction target. The number of people at risk of poverty or social exclusion (AROPE) in metropolitan France has increased by 831 000 ([168]) in one year, and by 1.45 million since 2019, reference year for the 2030 target. The AROPE rate remained slightly below the EU average (21% vs. 21.6% in the EU) in 2022. Children are more impacted, with an overall increase of 4.7 pps over the same period, pushing the figure well above the EU average, also for severe material and social deprivation. The increase in the AROPE rate can be explained by a deterioration in the social situation in metropolitan France and the extension of the geographic area covered by the indicator to include four of France's outermost regions ([169]). Indeed, the French outermost regions have AROPE rates significantly above the EU average, with Guyane and La Réunion scoring the highest (49.5% and 43.2% in 2022). This points to the need for additional targeted anti-poverty measures in these territories. In metropolitan France, the low-skilled and those born outside the EU are significantly more at risk, with AROPE rates of 31.3% and 44.7% in 2022. A significant share of ESF and ESF+ resources are dedicated to social inclusion measures to bring those who are furthest away from the labour market closer to employment and to address the causes of poverty indirectly.

Table A14.2:**Situation of France on 2030 employment, skills and poverty reduction targets**

Indicators	Latest data	Trend (2016-2023)	2030 target	EU target
Employment (%)	74.4 (2023)		78	78
Adult learning[1] (%)	49.2 (2022)		65	60
Poverty reduction[2,3] (thousands)	1,454 (2022)		-1,100	-15,000

(1) Adult Education Survey, adults in learning in the past 12 months, special extraction excl. guided on-the-job training.
(2) Change in the number of persons at risk of poverty or social exclusion (AROPE), reference year 2019.
(3) FR set its national target in reference only to metropolitan France; the monitoring is aligned to this geographical scope.
Source: Eurostat, DG EMPL

Access to affordable housing remains a challenge, especially for people in the most vulnerable groups. While the share of households overburdened by housing costs remains below the EU average (6.5% vs 8.7% for the EU in 2022), around 330 000 people in France are homeless ([170]) and there is a high level of unmet demand for social housing ([171]). In 2022, for tenants renting at a market price, the material and social deprivation rate of 22.5% is higher than the EU average (19.2%), and similar to the severe housing deprivation rate (8.0% vs. 5.8% in 2020,

([167])DARES, "Les tensions sur le marché du travail en 2022", *Dares Resultats n°59*, November 2023.

([168])EC own calculation based on ESTAT data.

([169])Four overseas departments (Guadeloupe, Martinique, Guyane, la Réunion) have been included as of 2022.

([170])Fondation Abbé Pierre, L'état du mal-logement en France 2024, 2024.

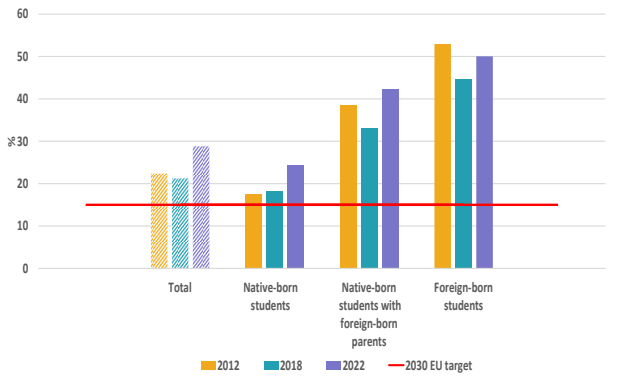
([171])Fondation Abbé Pierre, Palmarès de la loi SR, 2020-2022, Décembre 2023.

most recent available data). Lack of access to emergency housing is a challenge for an increasing number of people (up 40% between 2022 and 2023), including a significant number of children. Housing evictions escalated to a record level in 2023 (17 500), higher than the pre-pandemic level (16 700) ([170]). The French authorities introduced several measures, including the renewal of both the anti-poverty and housing strategies and reform of the minimum income. The latter aims to address previously identified challenges, such as the lack of guidance and support provided to beneficiaries. The revision of the eligibility criteria and its potential social impact, however, call for close monitoring.

This Annex outlines the main challenges of France's education and training system based on the 2023 Education and Training Monitor and the 2022 OECD Programme for International Student Assessment (PISA) results.

The French education system faces a worrying decline in basic skills; this hampers skills development and thus competitiveness. The PISA 2022 survey ([172]) showed a significant increase of underachievement rates since 2018 in mathematics, reading and science, standing around the EU averages, which have also worsened substantially. A gradual downward trend in performance in reading and science can even be observed since 2012. The underachievement rate increased particularly sharply in mathematics (7.6 pps vs EU 6.6 pps) and in reading (5.9 pps vs EU 3.7 pps) since 2018. Simultaneously, the share of top-performing students decreased in mathematics and reading, dropping by more than 5 pps since 2012 to 7.4% and 7.1% respectively.

Graph A15.1: **Underachievement in mathematics in France by country of birth, PISA 2012, 2018 and 2022**



Source: OECD (2023).

The negative trend observed across all quarters of socio-economic distribution is most pronounced among disadvantaged students. About half of all disadvantaged students do not reach a minimum proficiency level in mathematics (49.4% vs 39.1% in 2018). A similarly large socio-economic gap can be observed for students with a migrant background: foreign-born students are twice as likely (50%) to underachieve than their native-born peers without a migrant background (24.3%), while native-born students with parents born abroad have only a slightly better underachievement rate (43%).

Shortages of qualified teachers and the attractiveness of the teaching profession remain major challenges. The number of applicants for teacher entry exams is falling, coupled with acute needs of additional teachers in science, technology, engineering and mathematics (STEM) and foreign languages as well as in certain geographical areas, including some overseas territories. More and more temporary teachers are hired without the same level of qualifications and experience as permanent teachers, leading to inequalities in working conditions, pay and career opportunities. In 2022-2023, 2.1% of pre-primary and primary schoolteachers and 9.5% of secondary schoolteachers worked on contract (71.5% temporary and 28.5% permanent) in public education. Teacher salaries are below the salaries of other tertiary-educated employees at all levels of education (26% lower in primary, 17% lower in secondary and 8% in upper secondary vs EU-25 14%/11%/6% in 2020). As of the school year 2023-2024, teachers' minimum net monthly salary increased to EUR 2100. Top-ups are planned for new tasks such as supporting students with difficulties, replacing teachers or carrying out innovative projects.

Strengthening basic skills and addressing socio-economic inequalities in the education system is a national political priority, in line with the 2023 country-specific recommendation addressed to France by the Council of the EU. As of the school year 2023-2024, one weekly hour of differentiated teaching in French and mathematics is in place for all students and the 'Homework done' scheme is expanded to all schools. Measures under the 'early years plan' refocus teaching on mathematics and language learning in early childhood education. Schools are also encouraged to increase their social mix: in 2023, the Ministry of Education set a non-binding target to reduce social segregation in public schools by 20% by 2027. Other policies continue in 2023-2024, such as the reform of halving class sizes in priority education areas or a reinforced anti-bullying plan, while teacher training could be further developed.

While France has achieved the EU-level targets on participation in early childhood education and care (ECEC) and early school leaving, disparities persist. In 2022, 56.2% of children below the age of 3 attended formal

([172])OECD (2023), PISA 2022 Results (Volume I): The State of Learning and Equity in Education.

Table A15.1:**EU-level targets and other contextual indicators under the European Education Area strategic framework**

				2012		2018		2023	
Indicator			Target	France	EU-27	France	EU-27	France	EU-27
[1]Participation in early childhood education (age 3+)			96%	100.0% [2013]	91.8% [2013]	100.0% [p]	92.2%	100.0% [2021, p]	92.5% [2021,d]
[2]Low-achieving 15-year-olds in:		Reading	< 15%	18.9%	18.0%	20.9%	22.5%	26.9% [2022]	26.2% [2022]
		Mathematics	< 15%	22.4%	22.1%	21.3%	22.9%	28.8% [2022]	29.5% [2022]
		Science	< 15%	18.7%	16.8%	20.5%	22.3%	23.8% [2022]	24.2% [2022]
Early leavers from education and training (age 18-24)	[3]Total		< 9 %	11.8%	12.6%	8.7%	10.5%	7.6%	9.5%
	[3] By gender	Men		13.7%	14.5%	10.6%	12.1%	9.5%	11.3%
		Women		10.0%	10.6%	6.8%	8.7%	5.6%	7.7%
	[4] By degree of urbanisation	Cities		10.5% [b]	11.2%	8.6%	9.4%	6.7%	8.6%
		Rural areas		11.4% [b]	14.0%	8.7%	11.0%	7.3%	9.9%
	[5] By country of birth	Native		11.0%	11.3%	8.2%	9.2%	7.2%	8.2%
		EU-born		25.1%	26.2%	13.0% [u]	22.4%	10.2% [u]	21.0%
		Non EU-born		22.8%	30.1%	15.2%	23.0%	12.7%	21.6%
[6]Socio-economic gap (percentage points)				36.2	:	32.7	29.5	40.7 [2022]	37.2 [2022]
[7]Exposure of VET graduates to work-based learning			≥ 60% (2025)	:	:	:	:	68.3%	64.5%
Tertiary educational attainment (age 25-34)	[8]Total		45%	42.6%	34.1%	47.0%	38.7%	51.9%	43.1%
	[8] By gender	Men		38.1%	29.1%	42.8%	33.3%	47.8%	37.6%
		Women		47.0%	39.2%	51.0%	44.2%	55.8%	48.8%
	[9] By degree of urbanisation	Cities		50.4% [b]	43.5%	56.6%	49.0%	61.1%	53.3%
		Rural areas		33.6% [b]	24.8%	35.5%	27.7%	38.9%	31.7%
	[10] By country of birth	Native		43.6%	35.4%	47.7%	39.7%	52.2%	44.2%
		EU-born		37.0%	29.3%	49.8%	36.7%	43.8%	40.2%
		Non EU-born		35.7%	24.2%	41.2%	31.0%	49.7%	37.1%
[11]Participation in adult learning (age 25-64)			≥ 47% (2025)	:	:	48.4% [2016]	37.4% [2016]	49.2% [2022]	39.5% [2022]
[12]Share of school teachers (ISCED 1-3) who are 55 years or over				14.5% [2013]	22.7% [2013]	15.1%	23.8%	16.9% [2021]	24.5% [2021]

Notes: b = break in time series; d = definition differs; e = estimated; p = provisional; u = low reliability; : = data not available.
Source: 1,3,4,5,7,8,9,10,12=Eurostat; 11= Eurostat, Adult Education Survey; 2,6=OECD, PISA.

childcare and education (EU 35.7%), but participation is much lower among disadvantaged children (71% of them are not enrolled in any form of childcare). All children above the age of 3 attend pre-primary school (100% vs 92.5% in the EU in 2021). After a downward trend over the last decade, the early school leaving rate remains below the EU-target (7.6% in 2023 vs 9.5% in the EU), but hides some disparities linked to the school's location (13.2% in the outermost regions) as well as to the students' origin and gender (12.7% for students born outside the EU and 9.5% for boys).

France helps students and teachers attain green competences. Environmental and sustainability education is ensured from pre-primary to upper secondary school, but unevenly implemented across schools. In 2023, a new action plan launched 20 measures for the ecological transition at school, including a competency framework, inspired by the European sustainability competence framework, and guidance for the education community.

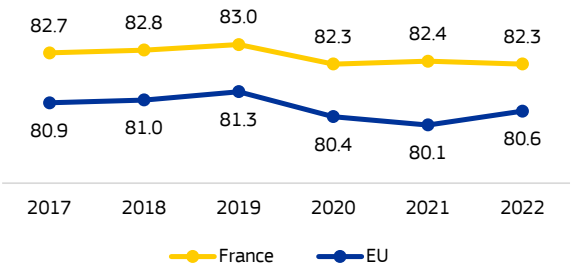
While inclusion of children with disabilities has progressed, the shortage of support specialists and low accessibility still hamper further progress. In 2022-2023, an additional 114 600 children with a disability attended mainstream schools compared with 5 years ago. However, only 1.4% of primary school students with disabilities had a specialist teacher and only 3.7% had access to adapted teaching equipment.

While tertiary attainment is high, participation depends on regional and socio-economic factors. In 2023, 51.9% of 25-34-year-olds held a higher education diploma (EU 43.1%), with a proportion of STEM entrants (27.4% in 2021) in line with the EU average. However, territorial and socio-economic disparities persist: young people aged 20-24 with less-educated parents are less likely to study (difference of 25 pps with those with highly educated parents), and the tertiary attainment rate drops the further away they live from a major city.

A healthy population and an effective, accessible and resilient health system are prerequisites for a sustainable economy and society. This Annex provides a snapshot of population health and the health system in France.

Life expectancy in France is above the EU average; but has not rebounded after it fell in 2020 at the onset of the COVID-19 pandemic. France fares comparatively well in avoiding deaths from treatable causes. In 2021, cancers and diseases of the circulatory system were the leading causes of death, followed by COVID-19.

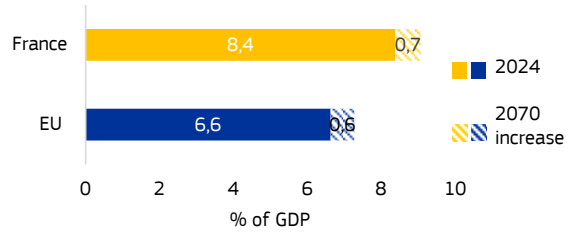
Graph A16.1: **Life expectancy at birth, years**



Source: Eurostat

Health spending relative to GDP in France was above the EU average in 2021. In 2021, total health spending increased to 12.3% of GDP and provisional OECD data suggests that it fell to 12.1% of GDP in 2022. Public spending on health grew by around 9% in real terms in 2021, largely driven by a catch-up effect following the disruption in healthcare activities caused by the lockdown measures in 2020, as well as the cost of the COVID-19 testing and vaccination campaigns. Public health spending as a proportion of total health spending (84.8% in 2021) was above the EU average (81.1%). Based on the age profile of the French population, public spending on health is projected to increase by 0.7 percentage points (pps) of GDP by 2070, compared to 0.6 pps for the EU overall (see Graph 16.2 and Annex 21). More systemic evaluation of performance of the health system, especially of hospital care, would help improve cost-efficiency.

Graph A16.2: **Projected increase in public expenditure on healthcare over 2024-2070**



Baseline scenario

Source: European Commission / EPC (2024)

Spending on prevention increased during the pandemic and accounted for 5.5% of all health expenditure in 2021, compared to 6% for the EU overall. Between 2019 and 2021, spending on prevention in France increased by 169%, exceeding a 105.5% increase for the EU overall. Proportionally, budget shares for prevention across the EU increased most for emergency response, disease detection and immunisation programmes. Between 2019 and 2021, a proportional increase in reported spending was noted in France for these areas too. Total consumption of antibiotics for systemic use is among the highest in the EU in both community and hospital settings. Despite the slight decrease in the use of antibiotics between 2019 and 2022, France is not on course to meet the national target of a 27% reduction by 2030 in relation to 2019 level, set by the Council Recommendation on stepping up EU actions to combat antimicrobial resistance in a One Health approach.

France continues to face a shortage of doctors despite the policy measures taken. There were 3.2 practising doctors per 1 000 population in 2021 (against an EU average of 4.1). The increase in the density of doctors since 2010, against a backdrop of an ageing population, is lower than in the EU overall. Furthermore, 44.6% of doctors are aged 55 or over, which may exacerbate the shortage in the longer term. Another challenge is the territorial distribution of doctors, with no progress observed in closing gaps between regions in the last 10 years. The proportion of doctors who are general practitioners (GPs) has reduced over time, resulting in growing shortages of GPs in certain regions, especially those surrounding Paris and in the west of the country. Doctors' pay seems to be comparatively high, but the pay gap between self-employed and

Table A16.1:**Key health indicators**

	2018	2019	2020	2021	2022	EU average (latest year)
Treatable mortality per 100 000 population (mortality avoidable through optimal quality healthcare)	61.2	60.3	59.0	58.8	NA	93.3 (2021)
Cancer mortality per 100 000 population	233.4	230.7	226.6	222.6	NA	235.4 (2021)
Current expenditure on health, % GDP	11.2	11.1	12.1	12.3	NA	10.9 (2021)
Public share of health expenditure, % of current health expenditure	83.4	83.6	84.8	84.8	NA	81.1 (2021)
Spending on prevention, % of current health expenditure	2.1	2.0	3.1	5.5	NA	6.0 (2021)
Available hospital beds per 100 000 population	589	583	573	565	NA	525 (2021)
Doctors per 1 000 population	3.1	3.2	3.2	3.2	NA	4.1 (2021)*
Nurses per 1 000 population	9.3	9.4	9.4	9.7	NA	7.9 (2021)
Total consumption of antibacterials for systemic use, daily defined dose per 1 000 inhabitants per day ***	25.3	25.1	20.3	21.5	24.3	19.4 (2022)

Note: The EU average is weighted for all indicators except for doctors and nurses per 1 000 population, for which the EU simple average is used. Doctors' density data refer to practising doctors in all countries except Greece, Portugal (licensed to practise) and Slovakia (professionally active). Nurses' density data refer to practising nurses in all countries except Ireland, France, Portugal, Slovakia (professionally active) and Greece (hospital only).

Source: Eurostat Database; except: * OECD, ** Joint Questionnaire on non-monetary healthcare statistics, *** ECDC, **** Council Recommendation on stepping up EU actions to combat antimicrobial resistance in a One Health approach.

salaried specialists is substantial. The limited pay increase for salaried doctors since 2010 may make it less attractive for students to enter medical professions in the future. Several policy measures were taken to address health workforce shortages, including in particular increased quotas of medical students, measures promoting local communities of health professionals, GP internships in underserved areas, grants and setting-up support, support for new working solutions, task-shifting. The impact of these measures remains to be seen.

France may find it difficult to maintain current nursing care provision levels in the longer term. The density of nurses (9.7 per 1 000 population in 2021) is above the EU average, but hospital nurses' pay is below the average national wage, and low compared to other EU countries. A salary upgrade is planned for hospital nurses and nurse assistants working night shifts on Sundays and holidays, starting in 2024. The impact of this measure on the well-being of nurses will need to be assessed.

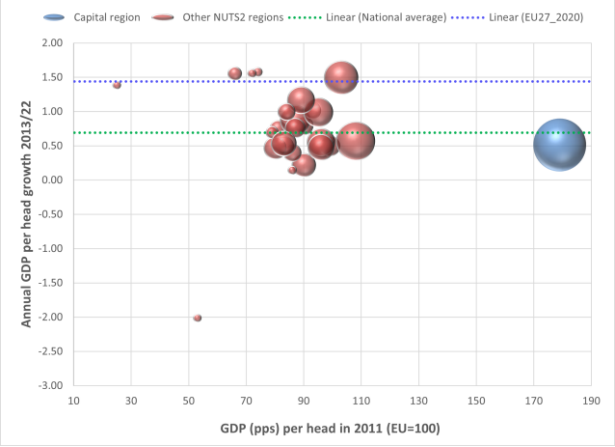
Through its recovery and resilience plan, France plans to invest EUR 4.5 billion (11.2% of the plan's total value) in strengthening its health system. This concerns the construction and refurbishment of facilities, investments in nursing homes and the further digitalisation of health services. Two reforms included in the plan were already implemented in 2021: (i) a law reforming hospital governance, which will make the organisation of hospitals more flexible; and (ii) a law on social debt and autonomy, which supports the independence of older people and people with disabilities. Work has progressed on investments in health facilities and the suicide prevention line. Substantial planned investment in digitalisation will help address the slow uptake of e-health, as exemplified by the relatively low number of people accessing personal health records online (see Annex 11). To supplement investment in digital health, the government launched the digital health acceleration strategy in 2021 with a budget of EUR 734 million. Complementary investments in health worth around EUR 428 million are planned in 2021-2027, from the cohesion policy funds. These will focus on health infrastructure, e-health services, health workforce development and improving access to healthcare, especially for vulnerable groups ([173]).

([173])The EU cohesion policy data reflect the status as of 13 May 2024.

Annex 17 showcases the economic and social regional dynamics in France. It provides an analysis of economic, social and territorial cohesion in the French regions and assesses emerging investment and subnational reform needs to foster economic growth, social development and competitiveness in the country.

Overview of economic and social performance at regional level

Graph A17.1: **Average GDP per capita growth vs GDP per capita - France**



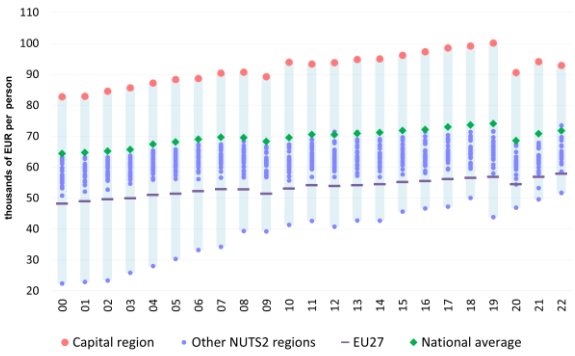
Source: DG REGIO calculations based on JRC (ARDECO) and Eurostat data

Economic growth has been subdued in almost all French regions during the last decade, with regional disparities further increasing. Between 2013 and 2022, real GDP growth was low (and even negative) in most French regions (Graph 17.1), with only 4 NUTS 2 regions (Provence-Alpes-Côte d'Azur, Guadeloupe, Martinique, La Réunion) performing better than the EU average of +1.4%. As growth has been on average higher in more developed regions (i.e. the capital region and Rhône-Alpes) and particularly low or negative in a few moderately developed regions of metropolitan France (e.g. Lorraine, Picardie, Languedoc-Roussillon), regional disparities have further increased. At the highest end of the spectrum are two regions with a GDP per capita greater than the EU average (Île-de-France at 163%, Rhône-Alpes at 103%), with at the lowest end in metropolitan France Limousin, Lorraine and Picardie (around 75%). While most of the French outermost regions are catching up with the EU and the national average in terms of GDP per capita (except for Guyane and, partially, Mayotte), they remain well below the EU and French averages (ranging from Mayotte at 30% to Martinique at 70%). GDP per capita is also substantially lower in France's non-urban areas than in urban areas.

Regional disparities in GDP per capita partly stem from wide variations in labour productivity. During the last two decades, labour productivity has been higher than the EU average in all French regions, except Mayotte. It is generally much lower in the less developed regions of the country, such as the outermost regions, but also in Limousin or Basse-Normandie. In 2022, productivity in Île-de-France was 1.6 times higher than in Limousin, 1.7 times higher than in Mayotte.

As a result of frequent or long periods of below-average growth in GDP, productivity and employment since 2003, most French metropolitan regions (14 out of 22) are caught in a development trap ([174]). The intensity of the trap is higher in the north-eastern and eastern French regions, as well as in Limousin, and Languedoc-Roussillon, which have suffered the decline of industries that had once been their main source of wealth and are now struggling to keep pace with the rest of Europe in terms of income, employment prospects and productivity.

Graph A17.2: **Labour productivity, EU-27, France NUTS 2 regions, 2000-2022 (Real GVA per worker) - France**



Source: ARDECO, DG REGIO elaboration

While most French regions are around the EU average on competitiveness ([175]), considerable differences persist in regional

([174])European Commission, 2021, Cohesion in Europe towards 2050, 8th report on economic, social and territorial cohesion.

([175])2022 regional competitiveness index.

Table A17.1:**Selected indicators at regional level in France**

NUTS region name	GDP per head (PPS)	Productivity (GVA (PPS) per person employed)	Real productivity growth	GDP growth	GDP per head growth	Unemployment rate	R&D expenditure	Employment in high-technology sectors	Greenhouse Gas Emissions	EU Regional Competitiveness Index 2.0 - 2022 edition
	Index, EU27 = 100 (2022)	Index, EU27 = 100 (2022)	Average % change on the preceding year (2013-2022)	Average % change on the preceding year (2013-2022)	Average % change on the preceding year (2013-2022)	% of labour force (2023)	% of GDP (2021)	% of total employment (2022)	tCO2 equivalent per head (2022)	Index, EU27 = 100
European Union (27 MS)	100	100	0.7	1.6	1.44	6.1	2.3	4.9	8	100
France	100	108.1	0	1.05	0.69	7.3	2.2	4.4	6.3	108.6
Ile-de-France	163	139.9	-0.2	0.87	0.51	7.6	2.8	7.4	3	142
Centre — Val de Loire	80	93	-0.1	0.24	0.22	5.7	1.5	3.5	7.3	100.4
Bourgogne	84	95.8	0.4	0.63	0.79	7.3	0.9	2.2	7.3	96.2
Franche-Comté	76	92.9	0.4	0.77	0.75	5.7	2.9	6.2	5.9	96.1
Basse-Normandie	78	88.2	-0.4	0.35	0.4	6	1.2	2.8	7.1	94.6
Haute-Normandie	87	104.3	0	0.49	0.46	6.9	1.5	2.7	8.8	101.4
Nord-Pas de Calais	82	96.1	0.1	0.9	0.88	9.8	0.9	3.1	12.4	102.1
Picardie	75	99.3	0.1	0.46	0.49	9.1	1.5	2	7.6	101.1
Alsace	91	100.5	0.1	0.86	0.5	5.9	1.9	4.3	5.7	108.7
Champagne-Ardenne	89	103	0.7	0.81	1.02	7.1	0.8	1.1	8.5	94.1
Lorraine	73	93.9	0.2	0.35	0.47	7.4	1.3	1.6	9	96.3
Pays de la Loire	91	97.6	0.3	1.65	0.99	6.1	1.3	3.3	8.5	103.9
Bretagne	87	96.3	0.5	1.7	1.17	5.4	1.8	4.1	9.6	100.4
Aquitaine	88	96	-0.3	1.28	0.55	7.2	1.8	4	5.3	101.8
Limousin	74	87.2	0.2	0.49	0.7	6.3	1.3		7.9	97.4
Poitou-Charentes	82	95.1	0.2	1.01	0.76	7.3	0.9	1.8	7.6	94.6
Languedoc-Roussillon	76	95.1	-0.3	1.3	0.53	9.2	2.6	3.7	5.4	99.1
Midi-Pyrénées	88	95.2	-0.1	1.19	0.48	6.1	4.4	5.9	5.7	107.3
Auvergne	81	94.7	0.5	1.1	1	7.1	2.2	2.2	7.7	96.4
Rhône-Alpes	99	105.1	-0.1	1.23	0.57	6.5	3	5.7	4.6	110.5
Provence-Alpes-Côte d'Azur	103	111.9	0.7	1.92	1.49	7.1	2.2	3.9	6.1	106.7
Corse	76	89.9	-0.7	1.13	0.14	6.9	0.4		4.9	77.3
Guadeloupe	66	96.5	0.4	0.87	1.57	18.6			3.1	75.8
Martinique	70	86.8	0.3	0.62	1.56	10.8			3	88.7
Guyane	40	92.7	-3.2	0.07	-2.01	14			2	62.8
La Réunion	64	86.8	0.5	1.99	1.55	19		1.3	3.5	77.8
Mayotte	30	81.3	2.6	5.13	1.38	27.8			0.1	66.8

Source: Eurostat, EDGAR database

innovation performance, with innovation and technology-related activities concentrated in the most developed regions of the country. Only 4 regions have a share of employment in such activities above the national average of 4.4% (Île-de-France, Franche-Comté, Midi-Pyrénées and Rhône-Alpes) ([176]). The uptake of information and communications technology (ITC) technologies by individuals is relatively high in France, albeit with some differences between regions and a moderately higher uptake in cities (83%) than in rural areas (78%). Despite that, the percentage of households with broadband connection in 2021 was below the EU average in most regions, with the lowest levels observed in Corse, Limousin, and Guadeloupe (75% in each).

The share of the population aged 30-34 with high educational attainment (51.5%) is above the EU average (43.9%), but some of the less developed regions in the country still lag behind in terms of human capital. In 2022, the highest share of the population with a tertiary education was in Île-de-France (65.9%) and was much lower in Champagne-Ardenne (34.2%), Picardie (39.3%) and Corse (40.3%), as well as in the outermost regions, such as La Réunion (29.4%) and Guyane (31.5%). While the share of early school leavers (7.6%) is well below the EU average (9.5% in 2023), there are considerable regional disparities (21.5% in Corse, 13.2% in Picardie, 4.1% in Aquitaine with the rate of early school leavers being significantly higher in the outermost regions (in Guyane 21.7% of the population aged 18-24 dropped out of school). The highly educated segment of the population tends to concentrate in cities, where 50% aged 25-64 has a high level of educational attainment (compared with 33% in rural areas).

Most regions are affected by major demographic changes, with the population shrinking in 12 regions, which significantly impacts their development prospects. As a result of the shrinking working-age population and lagging levels of tertiary education, 5 regions (Haute-Normandie, Champagne-Ardenne, Lorraine, Guadeloupe, Martinique) are in a talent development trap ([177]), and 10 more are at risk of being in a talent development trap. At the same time, Guyane and Mayotte are experiencing an exponential population growth, with the population

([176])Source: regional innovation scoreboard, 2022.

([177])A region is deemed to be in a talent development trap if it has a shrinking working-age population and lagging level of tertiary education.

expected to double (Guyane) and multiply by 2.5 (Mayotte) by 2100 ([178]).

The unemployment rate has steadily declined in recent years (7.3%) but remains above EU average of 6.1% in most French regions in 2022. The unemployment rate is highest in the outermost regions (particularly Mayotte, close to 28%), but there were significant differences also in metropolitan France (it is highest in Nord-Pas de Calais, 9.8%, in Languedoc-Roussillon, 9.2% and in Picardie, 9.1%, and lowest in Bretagne, 5.4% and Franche-Comté Centre – Val de Loire at 5.7%). It is generally higher in cities (8.2%) than in rural areas (5.8%). Similarly, poverty is much higher in cities (more than 24%) and in towns and suburbs (23.5%) than in rural areas (15.1%), with an increase across all territorial typologies in recent years. The share of population at-risk-of-poverty or social exclusion in France's outermost regions is significantly above the EU average, with Guyane and La Réunion scoring the highest (49.5% and 43.2% in 2022) (Annex 14).

Access to healthcare services is a challenge for part of the population, in particular in non-urban territories, some urban areas and in the outermost regions (Annex 16). The most affected regions are Mayotte, Guyane and Picardie (in 2021, respectively 85, 223 and 241 physicians per 100 000 inhabitants while in Île-de-France 359 and in Provence-Alpes-Côte d'Azur 384). Intra-regional disparities add to this challenge.

Investment and subnational reform needs ahead

The investment strategy agreed in the cohesion policy programmes adopted in 2022 remains still valid for the current economic and social situation in France. Considering recent developments, France is invited to reflect on the following issues.

Increasing the attractiveness of French research development and innovation activities at regional level remains key, including by recruiting highly qualified and skilled researchers. Updated regional innovation smart specialisation strategies underpinning the 2021-27 cohesion policy programmes could be supported meaningfully by actions aiming at strengthening the regional innovation eco-systems, developing strategic skills, and retaining and attracting talent. This would help several regions counter demographic shrinking and economic disparities within, as well as move away from the talent development trap they are facing.

Supporting growth and competitiveness of enterprises by increasing their digitalisation and their capacity to innovate also remains a high priority. This is particularly important in development-trapped regions to reduce the high internal disparities in regional competitiveness. Encouraging the creation of new start-ups by better integrating Research Development & Innovation outcomes into the economic activities of new SMEs in the production and service sectors, facilitating the upscaling of newly created start-ups, assisting young entrepreneurs of SMEs in the early stages and contributing to improve the position of French SMEs within EU internal and external markets.

On the green transition, effective schemes have been put in place to improve energy efficiency and to strengthen biodiversity protection. Further efforts are needed to step up the production of renewables across all the country. This need is even more acute in the outermost regions, as well as in metropolitan regions with significant untapped potential for solar, wind and hydro power (notably Aquitaine, Champagne-Ardenne, Bourgogne, Centre). Increased efforts are also needed in the development of smart energy systems and climate change adaptation. In the outermost regions, particular focus is to be placed on promoting the supply of drinking water, wastewater treatment and municipal waste collection and management.

France could also benefit from the investment opportunities of the Strategic Technologies for Europe Platform (STEP). France could notably further develop the skills, technologies, infrastructures needed and stimulate the involvement in new strategic value chains (net-zero industry, critical raw material, decarbonisation of energy-intensive industries).

Targeted simplifications of the regulatory framework would facilitate investments linked to the STEP initiative, together with the reform areas identified in the National

([178])Source: Eurostat.

Recovery and Resilience Plan (NRRP). On net-zero technologies in particular, in line with the law on green industry adopted in October 2023, such actions could focus on: streamlining the administrative framework for permitting (cutting of red tape, acceleration of permitting and enhancement of skills in administration); facilitating access to markets (by including sustainability and resilience criteria in public procurement); setting up specific regulatory frameworks (to help develop and test net-zero technologies and create a level playing field for innovation).

Supporting access to healthcare services remains a priority, in particular in underserved areas, including in non-urban, some urban and outermost regions, where medical professionals are lacking and the situation risks getting worse due to demographic trends (Annex 16).

Strengthening public and private investments in the renovation of dwellings, focusing on social and affordable housing. This approach could provide an answer to the high level of unmet needs, notably in the outermost regions. This is of particular importance considering the increasing number of people exposed to poverty or social exclusion (Annex 14).

Encouraging a more effective use of the budget process, including at regional level, to support the achievement of policy goals could also help strengthen local governance, leading to more effective design and delivery of regional development strategies. These approaches are starting to be tested at national ([179]) and regional level as regards "green budgeting", with the help of modern budget frameworks linking strategic planning and budgeting. These initiatives should be encouraged and expanded, as budgets play a core role in prioritising and resourcing government action, they can have significant impact on progress towards these objectives.

More broadly, further efforts are needed on administrative capacity building in the outermost regions. This would help local authorities to implement the funds and, more generally, to deploy development strategies maximising the impact of EU policies and programmes. Reforms to strengthen data collection are also needed in certain regions. This is notably true for Mayotte and Saint Martin, where the lack of statistical data in key areas makes it challenging to obtain an accurate picture of the regions' needs and design tailored responses and projects.

([179])France presented its first comprehensive green budget (Rapport sur le budget vert) in 2020.

In an environment of higher inflation and interest rates, the French banking sector's profitability and solvency have remained relatively stable. With annualised return-on-equity of 6.1% in 2022 and 6.9% in the first 9 months of 2023 (vs 9.9% in the EU), profitability has remained stable but lower than elsewhere. This is due to: (i) the high interest rate on the so-called Livret A savings products offered to retail investors; (ii) the predominance of fixed-rate loans on the asset side; and (iii) the worst cost-to-income ratio within the EU. Despite the difficult macroeconomic environment, the capital adequacy ratio of French banks has remained broadly stable over the years and reached 19.7% in September 2023 (vs 19.6% in the EU). Credit quality remains strong, with the non-performing loan ratio (1.9% in September 2023 vs 1.8% in the EU) barely moving from its all-time low of 1.8% observed from March 2022 to March 2023. These relatively good results may be partly due to temporary support measures by the ECB and the French government, such as the sizeable public-loans guarantee scheme. Banks have ample liquidity, even though funding from the ECB dropped significantly (as it did elsewhere in the euro area) from a record high of 5.6% in June 2021 to reach 1.2% in December 2023 due to banks repaying their cheap pandemic-era funding under the ECB's targeted longer-term refinancing operations. The loan-to-deposit ratio increased to 99.5% by June 2023 (vs 93.0% in the EU).

French banks face a particular challenge on the funding side of their balance sheet. Unlike their peers in most other Member States, French banks have no control on the interest rates applied to regulated savings products like the Livret A, the interest rates of which are laid down by law and closely follow changes in inflation and interbank interest rates. The interest rate on the Livret A (and other regulated savings accounts) increased from 2% to 3% on 1 February 2023. On 13 July 2023, the Treasury followed a recommendation from the Banque de France and decided to keep the rate at 3% until January 2025. By doing so, the Treasury refrained from a stricter application of the Livret A interest-rate formula which would have taken the rate to 4.1% as of 1 August 2023. This relatively high interest rate on regulated deposits has to be compared to the relatively low 'usury' rate, which is the maximum rate banks can charge on loans. The relatively small spread between interest rates for deposits and interest rates for lending has combined with the faster repricing of deposits than loans to put banks' margins under pressure.

French non-financial corporations (NFCs) are suffering from a rise in interest rates on their loans. French NFCs are on average more indebted than their European peers, which makes them more vulnerable to any significant and persistent increase in interest rates. The share of SMEs that did not obtain the loan they sought has been soaring since 2021, and this has weighed on investment (see Annex 12). However, according to the Banque de France, French NFCs benefit from relatively stable earnings and from the fact that their debt is mostly held at fixed rates and over relatively long maturities, which insulates them from sudden interest-rate shocks ([180]). Still, the non-performing loan ratio has gradually increased from a record low of 3.3% in Q3-2022 to 3.6% in Q3-2023. There is growing evidence that the most heavily leveraged firms are failing to deal with the gradual pass-through of higher interest rates to their funding costs, against the backdrop of a slowing economy. Some large corporations have entered restructuring agreements with their creditors (mainly banks) to preserve their solvency. This could ultimately result in some credit losses for the banks and a further tightening of financing conditions. In this context, the High Council for Financial Stability (HCSF) replaced in August 2023 the 'large exposures' measure with a new 3% sector-specific systemic risk capital buffer. This new sector-specific buffer applies to the exposures of systemically important French banks to heavily indebted large French companies where such exposures exceed 5% of tier 1 capital. This new measure is considerably milder than the previous 'large exposures' measure and aims at avoiding an abrupt credit constraint for overindebted large corporations in breach of the leverage thresholds.

French banks continue to finance the economy on relatively attractive terms despite the rise in interest rates. Due to the rise in interest rates, year-on-year credit growth has plunged since its peak of August 2022 to reach 2.4% (vs 0.5% in the euro area) for lending to NFCs and 1.4% (vs 0.3% in the euro area) for

([180])Banque de France, ERS December 2023.

Table A18.1:**Financial soundness indicators**

	2017	2018	2019	2020	2021	2022	2023	EU	Median
Total assets of the banking sector (% of GDP)	368.0	372.8	382.4	452.6	442.1	436.2	421.7	257.0	184.6
Share (total assets) of the five largest banks (%)	45.4	47.7	48.7	49.2	49.3	46.6	-	-	69.6
Share (total assets) of domestic credit institutions (%)[1]	95.2	95.3	95.2	95.8	96.3	94.7	94.7	-	62.9
NFC credit growth (year-on-year % change)	6.6	6.4	5.6	12.2	4.5	8.6	2.4	-	2.4
HH credit growth (year-on-year % change)	6.0	5.6	6.4	4.9	5.6	5.3	1.4	-	1.4
Financial soundness indicators:[1]									
- non-performing loans (% of total loans)	3.1	2.7	2.5	2.2	1.9	1.8	1.9	1.8	1.8
- capital adequacy ratio (%)	17.8	18.0	18.6	19.5	19.7	19.4	19.7	19.6	20.1
- return on equity (%)[2]	6.4	6.5	6.0	4.1	7.1	6.1	6.9	9.9	13.2
Cost-to-income ratio (%)[1]	71.6	74.1	72.3	70.4	65.5	65.9	67.5	52.8	44.9
Loan-to-deposit ratio (%)[1]	105.1	109.1	107.3	95.4	92.5	96.7	99.8	93.3	80.2
Central bank liquidity as % of liabilities	2.3	1.9	1.6	5.1	5.6	3.6	1.2	-	0.7
Private sector debt (% of GDP)	145.0	148.4	153.1	173.9	167.5	163.9	-	133.0	118.4
Long-term interest rate spread versus Bund (basis points)	49.2	38.7	38.3	36.6	38.0	55.8	56.0	107.7	104.2
Market funding ratio (%)	59.0	58.1	57.7	56.0	55.7	53.7	-	50.8	39.8
Green bonds outstanding to all bonds (%)[3]	-	-	-	2.3	3.1	3.6	3.9	4.0	2.7

1-3 **4-10** **11-17** **18-24** **24-27** Colours indicate performance ranking among 27 EU Member States.

(1) Last data: Q3-2023.
(2) Data are annualised.
(3) Data available for EA countries only, EU average refers to EA area.
Source: ECB, Eurostat.

lending to households in December 2023. Interest rates on new loans to SMEs have soared to levels unseen since the global financial crisis. They reached 4.24% in October 2023 (vs 5.65% in the euro area) but they remain among the lowest in the euro area. Interest rates on new loans to households for house purchases at floating rates have also significantly increased, but remain among the lowest in the EU at 3.58% in October 2023 (vs 4.87% in the euro area).

Real-estate markets are showing signs of cooling, especially the commercial segment. New lending for house purchases has significantly contracted due to the rise in interest rates. Despite some improvement, loan-to-value ratios remain high. However, households' repayment capacity is protected by the high share of fixed-rate loans and guaranteed loans, and the improvement in credit standards following the introduction of a borrower-based measure by the HCSF in late 2020. This borrower-based measure set a ceiling on the debt service-to-income ratio and on the maturity of the loans. In addition to this borrower-based measure, the HCSF decided in December 2022 to raise the countercyclical bank capital buffer from 0.5% to 1% as of 2 January 2024, and said that it was not planning additional increases to this buffer in 2023. Finally, in the commercial real estate market, the prices and volume of transactions have slumped since the fourth quarter of 2022, following a decade of strong growth and a marked slowdown due to the COVID-19 crisis.

In general, French banks seem to make more effort than their global (and especially US) peers to reduce their financing of the fossil-fuel industry. The main French banks have all joined the Net-Zero Banking Alliance launched in April 2021 by the Finance Initiative of the UN Environment Programme. These banks committed to transition their lending and investment portfolios to align with pathways to net-zero GHG emissions by 2050 or sooner. The stock of loans to the renewables sector increased by 22% between 2021 and 2022 to reach EUR 51 billion in 2022. French banks have also accelerated their withdrawal from lending to the coal industry, which only represented EUR 2.3 billion of their portfolio in 2022. In 2021, the six largest French banks were the first in the world to collectively exit the unconventional oil and gas sector (such as tar sands and fracking). Since January 2022, they no longer finance any company with a more than 30% share of revenues from unconventional hydrocarbons.

Insurers' solvency has slightly worsened but remains broadly satisfactory. French insurers' average solvency ratio has decreased from 252.8% in 2021 to 248.9% in 2022. This change was driven by a combination of higher interest rates, higher inflation, greater frequency and severity of natural catastrophes (for non-life insurers), and higher surrender risk (for life insurers). Inflation and climate risk are the main challenge for non-life insurers, while surrender risk represents the main challenge for life insurers.

Investment fund activity has continued to grow. After 3 years of growth, French investment funds saw a sharp decrease in their assets under management (-11%, declining to EUR 4 570 billion) in 2022 because of tighter monetary policy and the war in Ukraine. In terms of market share, most investment funds continue to be organised as subsidiaries of banks and insurers.

This annex provides an indicator-based overview of France's tax system. It includes information on the tax structure (the types of tax that France derives most of its revenue from), the tax burden on workers, and the progressivity and redistributive effect of the tax system. It also provides information on tax collection and compliance.

France's tax revenues are still among the highest in the EU as a proportion of GDP. Table A19.1 shows that France's tax revenues as a percentage of GDP were still significantly higher than the EU average in 2022, especially for labour and capital taxes. Revenue from property taxes (as a percentage of GDP and as percentage of total taxation) was relatively high by comparison with the EU as a whole. This was particularly so for recurrent property taxes, which are among the taxes least detrimental to growth (see Graph A19.1). The average effective tax rate on corporate income is above the EU average. Production taxes have been reduced but are still much higher in France than in neighbouring countries (see Annex 12). The repeal of the Business Contribution on Added Value (CVAE), a local tax payable by any person carrying on a trade or business in France and levied on the added value that the trade or business generates, has been postponed. Instead of being fully abolished in 2024, as initially scheduled, the BCAV will be gradually phased out under the 2024 Tax Law (i.e. the maximum tax rate will be 0.28% in 2024, 0.19% in 2025, 0.09% in 2026 and completely abolished in 2027).

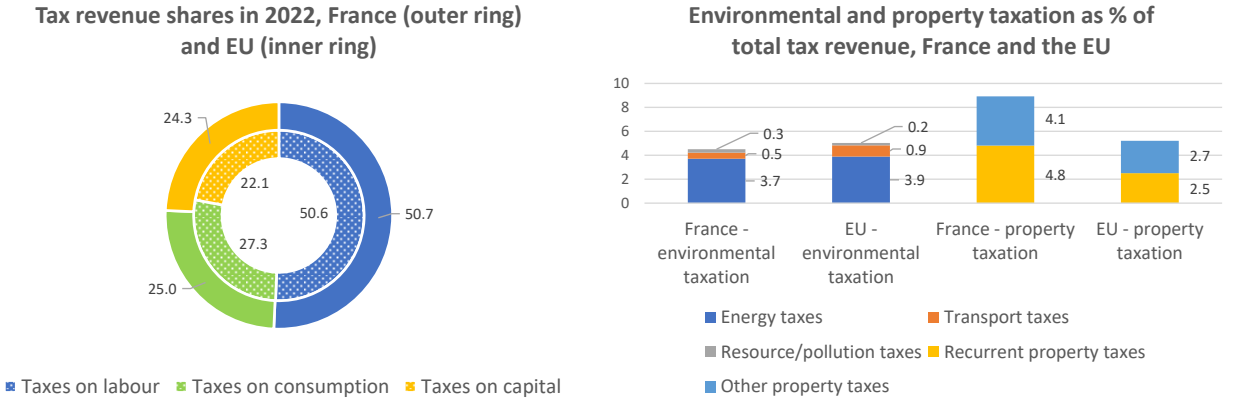
Revenue from environmental taxes as a percentage of GDP is close to the EU aggregate. In 2024, France introduced additional tax credits for green investments in strategic sectors (batteries, solar panels, wind turbines and heat pumps) and reformed the vehicle tax scheme in support of greening the fleet. The government is in parallel taking measures to reduce environmentally harmful subsidies. However, the existing excise rate reductions for commercial road transport and non-road uses of fuels are still in place. They represent an expenditure of respectively EUR 1.4 billion and EUR 2.4 billion. Pollution and resources taxes only account for 6.7% of environmental taxes and, while they are above the EU average, there is still potential to strengthen the application of the 'polluter pays' principle. France has already implemented four of the six main types of pollution and resources taxes (i.e. taxes on NOx emissions, landfilling and incineration, discharge of waste into water, and plastic products). There remains scope to implement the two other types (i.e. taxes on fertilisers and pesticides).

Table A19.1:**Taxation indicators**

		France					EU-27				
		2010	2020	2021	2022	2023	2010	2020	2021	2022	2023
Tax structure	Total taxes (including compulsory actual social contributions) (% of GDP)	42.3	45.4	45.1	46.2		37.9	40.0	40.4	40.2	
	Labour taxes (as % of GDP)	22.2	23.3	22.9	23.4		20.0	21.3	20.7	20.3	
	Consumption taxes (as % of GDP)	10.7	11.4	11.7	11.5		10.8	10.7	11.2	11.0	
	Capital taxes (as % of GDP)	9.4	10.7	10.5	11.2		7.1	8.0	8.6	8.9	
	Of which, on income of corporations (as % of GDP)	2.5	2.9	3.0	3.4		2.4	2.5	3.0	3.4	
	Total property taxes (as % of GDP)	4.0	4.7	4.2	4.1		1.9	2.3	2.2	2.1	
	Recurrent taxes on immovable property (as % of GDP)	2.9	3.0	2.3	2.2		1.1	1.2	1.1	1.0	
	Environmental taxes as % of GDP	1.9	2.2	2.2	2.1		2.4	2.2	2.3	2.0	
Progressivity & fairness	Tax wedge at 50% of average wage (Single person) (*)	34.1	15.1	19.2	19.6	19.8	33.9	31.7	32.1	31.8	31.7
	Tax wedge at 100% of average wage (Single person) (*)	49.9	46.5	46.9	47.0	46.8	41.0	40.1	39.9	40.0	40.2
	Corporate income tax - effective average tax rates (1) (*)		29.5	26.0	23.7			19.5	19.0	19.0	
	Difference in Gini coefficient before and after taxes and cash social transfers (pensions excluded from social transfers) (2) (*)	7.9	10.4	10.8	10.8		8.6	8.1	8.2	7.9	
Tax administration & compliance	Outstanding tax arrears: total year-end tax debt (including debt considered not collectable) / total revenue (in %) (*)		4.3	4.3				40.9	35.5		
	VAT Gap (% of VAT total tax liability, VTTL)(**)	8.7	8.5	4.9	4.8			9.7	5.4		

(1) Forward-looking effective tax rate (OECD).
(2) A higher value indicates a stronger redistributive impact of taxation.
(*) EU-27 simple average.
(**) Forecast value for 2022, if available. For more details on the VAT gap, see European Commission, Directorate-General for Taxation and Customs Union, 2023, *VAT gap in the EU*, https://data.europa.eu/doi/10.2778/911698.
For more data on tax revenues as well as the methodology applied, see the Data on Taxation webpage, https://ec.europa.eu/taxation_customs/taxation-1/economic-analysis-taxation/data-taxation_en.
Source: European Commission and OECD

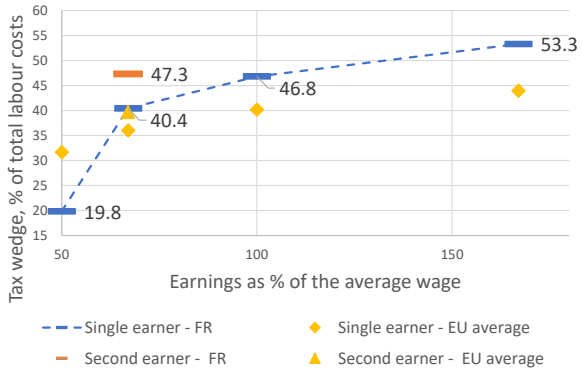
Graph A19.1: **Tax revenues from different tax types, % of total revenue**



Source: European Commission

France's labour tax burden is higher than the EU average, except for workers earning low wages. Graph A19.2 shows that the labour tax wedge for France in 2023 was clearly below the EU average for single people earning 50% of the average wage. France implemented tax reforms in the last 10 years aiming at cutting the tax wedge for low earners in order to reduce work disincentives. It becomes higher than the EU average at higher levels of income, especially those above the average wage. This makes the French tax system more progressive than the EU average. Second earners, at a wage level of 67% of the average wage and whose spouses earn the average wage, face a tax wedge which is higher than the one for single persons at the same wage level and which exceeds the EU average tax wedge for second earners by around 7.0 pps. This is explained by the joint taxation of personal income for couples. Past reforms increased incentives for employment at lower earnings levels. They also increased the ability of the tax and benefit system to reduce income inequality. The tax and benefit system reduces the Gini coefficient (a measure of income inequality) in 2022 by 10.8 pps, which was above the EU average of 7.9 pps (see Table A19.1). The tax-benefit system in France therefore contributes to reducing income inequality more than in the EU as a whole.

Graph A19.2: **Tax wedge for single and second earners, % of total labour costs, 2023**



The second earner tax wedge assumes a first earner at 100% of the average wage and no children. For the methodology of the tax wedge for second earners, see OECD, 2016, *Taxing Wages 2014-2015*.

Source: European Commission

France has improved tax compliance through increased digitalisation. Since 2015, France has been increasing the level of on-time filing for corporate income tax (CIT) to 95% in 2020 (France is one of the best performers in the EU). Pre-filing is proposed for personal income tax (PIT) and CIT declarations. E-filing is generalised, at 99% for CIT and 88% for PIT. France has developed a digital transformation strategy, as well as a strategy for identifying skills required for a successful digital transformation and a strategy for building a digital culture within the administration. However, France has postponed to 2026-2027 the entry into force of new e-invoicing and e-reporting rules for VAT purposes, which was originally scheduled for 1 July 2024 for large enterprises. Tax arrears were stable at 4.3% of total net revenue in 2022. This remained significantly below the EU-27 average of 35.5%, though that average was distorted by very large values in a few Member States. The VAT gap (an indicator of the effectiveness of VAT enforcement and compliance, where a low gap means high effectiveness) was 4.9% in 2021 (below the EU-wide gap of 5.3%), which represents approximately EUR 9.5 billion. However, France has the fifth highest VAT policy gap in the EU in relative terms, at 52.5% of the notional ideal revenue, mainly due to the large number of VAT exemptions in place. After a fairly large decline in

the collection efficiency ratio in 2020 (to 48.7%), this indicator improved significantly in 2021 (to 52.5%) – mostly as a result of improved compliance.

Sanctions against tax evasion enablers and fraudsters have been strengthened. A new bill has criminalised the provision of instruments supporting tax fraud, with an autonomous criminal offence charge to be brought against individuals and companies that provide their clients with instruments that facilitate tax fraud. The criminal penalty could be 5 years imprisonment and a EUR 500,000 fine (EUR 2.5 million for legal entities). The French tax authorities' resources to detect and take action against breaches of transfer pricing rules have also been reinforced. The French Tax Procedure Code (FTPC) has been amended to reduce from EUR 400 million to EUR 150 million the revenue/gross-asset threshold that triggers the obligation to provide transfer pricing documentation to the tax authority upon its request during a tax audit. The minimum amount of the fine for non- or partial submission of documentation will be increased from EUR 10 000 to EUR 50 000. Similarly, the capacity of the tax administration in relation to the detection and sanction of VAT fraud has been reinforced, notably in response to the challenge of e-commerce.

Table A20.1:**Key economic and financial indicators**

	2004-07	2008-12	2013-20	2021	2022	2023	forecast 2024	forecast 2025
Real GDP (y-o-y)	2.3	0.4	0.2	6.4	2.5	0.7	0.7	1.3
Potential growth (y-o-y)	.	1.2	0.8	1.1	1.1	1.1	1.1	1.0
Private consumption (y-o-y)	2.3	0.6	0.2	5.1	2.3	0.6	1.2	1.4
Public consumption (y-o-y)	1.7	1.5	0.4	6.6	2.5	0.5	0.9	0.8
Gross fixed capital formation (y-o-y)	3.9	-0.9	1.2	10.3	2.2	0.8	-0.5	1.1
Exports of goods and services (y-o-y)	4.5	1.2	0.2	11.0	7.1	1.2	2.4	3.3
Imports of goods and services (y-o-y)	6.0	1.2	1.4	9.4	8.6	-0.4	1.8	3.2
Contribution to GDP growth:								
Domestic demand (y-o-y)	2.5	0.5	0.5	6.8	2.3	0.6	0.7	1.2
Inventories (y-o-y)	0.2	-0.1	0.1	-0.6	0.7	-0.5	-0.2	0.1
Net exports (y-o-y)	-0.4	0.0	-0.4	0.2	-0.6	0.6	0.2	0.0
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	.	0.4	0.3	0.8	0.8	0.8	0.8	0.7
Capital accumulation (y-o-y)	.	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Total factor productivity (y-o-y)	.	0.3	0.0	-0.2	-0.3	-0.2	-0.2	-0.2
Output gap	1.8	-1.1	-0.9	-1.0	0.3	-0.1	-0.4	-0.2
Unemployment rate	8.7	9.0	9.4	7.9	7.3	7.3	7.7	7.8
GDP deflator (y-o-y)	2.1	1.1	1.1	1.4	2.9	5.5	2.8	2.0
Harmonised index of consumer prices (HICP, y-o-y)	1.9	1.9	0.9	2.1	5.9	5.7	2.5	2.0
HICP excluding energy and unprocessed food (y-o-y)	1.6	1.5	0.8	1.2	3.8	5.5	2.5	2.2
Nominal compensation per employee (y-o-y)	3.0	2.3	0.5	4.9	4.9	4.1	3.0	2.4
Labour productivity (real, hours worked, y-o-y)	1.0	0.2	0.7	-1.7	-1.9	-0.3	0.1	0.5
Unit labour costs (ULC, whole economy, y-o-y)	1.5	2.1	1.0	1.3	5.1	4.5	2.5	1.4
Real unit labour costs (y-o-y)	-0.5	0.9	-0.1	-0.1	2.1	-0.9	-0.3	-0.6
Real effective exchange rate (ULC, y-o-y)	0.2	0.0	-0.7	1.3	1.6	-2.5	-2.2	-1.0
Real effective exchange rate (HICP, y-o-y)	0.4	-0.8	0.0	-0.2	-4.0	1.7	.	.
Net savings rate of households (net saving as percentage of net disposable income)	9.2	10.0	9.5	13.1	11.2	.	.	.
Private credit flow, consolidated (% of GDP)	8.6	5.6	7.3	6.7	8.9	1.8	.	.
Private sector debt, consolidated (% of GDP)	110.9	131.7	149.7	167.5	163.7	155.4	.	.
of which household debt, consolidated (% of GDP)	42.9	53.0	59.7	66.6	66.2	63.1	.	.
of which non-financial corporate debt, consolidated (% of GDP)	68.0	78.8	90.0	100.9	97.4	92.4	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (1)	2.6	4.2	2.8	1.7	1.7	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	0.9	0.9	-0.5	0.3	-2.8	-2.3	-2.0	-1.8
Corporations, gross operating surplus (% of GDP)	18.0	17.4	17.6	18.5	17.4	18.6	18.3	18.4
Households, net lending (+) or net borrowing (-) (% of GDP)	2.3	3.7	3.4	4.9	3.9	5.0	5.3	4.8
Deflated house price index (y-o-y)	9.7	-0.3	1.1	4.8	1.5	-6.3	.	.
Residential investment (% of GDP)	6.3	6.4	6.2	7.0	7.1	6.7	.	.
Current account balance (% of GDP), balance of payments	0.2	-0.7	-0.6	0.4	-2.0	-0.7	0.4	0.4
Trade balance (% of GDP), balance of payments	0.1	-1.3	-0.9	-1.3	-3.2	-1.6	.	.
Terms of trade of goods and services (y-o-y)	-0.7	-0.4	0.7	-0.1	-3.1	2.4	1.0	-0.1
Capital account balance (% of GDP)	0.0	0.0	0.0	0.4	0.4	0.3	.	.
Net international investment position (% of GDP)	-4.8	-11.9	-19.3	-30.9	-23.8	-29.4	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (2)	-6.7	-23.8	-33.7	-39.3	-33.4	-36.6	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (2)	175.3	239.1	251.8	288.7	279.1	285.5	.	.
Export performance vs. advanced countries (% change over 5 years)	.	.	-3.5	-8.1	-7.6	-6.0	.	.
Export market share, goods and services (y-o-y)	-4.4	-4.0	-1.1	-1.4	-1.9	0.1	-1.1	-0.4
Net FDI flows (% of GDP)	1.7	1.5	1.1	0.5	0.4	1.5	.	.
General government balance (% of GDP)	-3.2	-5.7	-4.2	-6.6	-4.8	-5.5	-5.3	-5.0
Structural budget balance (% of GDP)	.	.	-3.4	-5.9	-4.9	-5.4	-5.0	-4.9
General government gross debt (% of GDP)	66.3	84.1	100.1	113.0	111.9	110.6	112.4	113.8

(1) Domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(2) NIIP excluding direct investment and portfolio equity shares.
Source: Eurostat and ECB as of 2024-5-17, where available; European Commission for forecast figures (Spring forecast 2024).

This annex assesses fiscal sustainability risks for France over the short, medium and long term. It follows the multi-dimensional approach of the European Commission's 2023 Debt Sustainability Monitor, updated based on the Commission 2024 spring forecast.

1 – Short-term risks to fiscal sustainability are low overall. The Commission's early-detection indicator (S0) does not signal major short-term fiscal risks (Table A21.2) ([181]). Government gross financing needs are expected to remain large, at more than 22% of GDP over 2024-2025 (Table A21.1, Table 1). Financial markets' perceptions of sovereign risk remain overall positive. Despite the deficit increase in 2023, in April 2024 Fitch and Moody's kept their ratings unchanged at AA- and Aa2, respectively, with a stable outlook. Meanwhile, Standard & Poor's downgraded credit rating for France to AA- with stable outlook, from AA with negative outlook.

2 – Medium-term fiscal sustainability risks are high.

Under the DSA baseline, the government debt ratio is projected to increase over the medium term, reaching around 139% of GDP in 2034 (Graph 1 and Table 1) ([182]). The debt increase is driven by the assumed structural primary deficit (excluding changes in cost of ageing) of 3.0% of GDP as of 2024. This level appears plausible compared with past fiscal performance, indicating that the country has room for corrective action (Table A21.2) ([183]). Up to 2029, the baseline projection benefits from a still favourable (although declining) snowball effect. Government gross financing needs are expected to remain large and increase over the projection period, reaching around 28% of GDP in 2034.

The baseline projection is stress-tested against four alternative deterministic scenarios to assess the impact of changes in key assumptions (Graph 1). Under the *historical structural primary balance (SPB) scenario* (in which the SPB returns to its historical 15-year average of -2.1% of GDP) the debt ratio would be lower than under the baseline by 6.5 pps. by 2034. However, the three other scenarios lead to higher debt levels than the baseline. Under the *adverse interest-growth rate differential scenario* (in which the interest-growth rate differential deteriorates by 1.0 pp. compared with the baseline), the debt ratio would be higher than under the baseline by 10.9 pps. by 2034. Under the *lower SPB scenario* (in which the improvement in the SPB forecast for 2024 is halved) the debt ratio would be higher than under the baseline by 3.5 pps. by 2034. Finally, under the *financial stress scenario* (in which interest rates temporarily increase by 2.2 pps. compared with the baseline), the government debt ratio would be higher by 2.1 pps. by 2034.

The stochastic projections indicate high risk due to the high probability of debt increasing over the next five years ([184])**.** These stochastic simulations indicate that the debt ratio will be higher in 2028 than in 2023 with a probability of 93%. The uncertainty surrounding the baseline debt projection is however limited, as measured by the difference of around 20 pps. of GDP between the 10th and 90th debt distribution percentiles in five years' time (Graph 2).

([181])The S0 is a composite indicator of short-term risk of fiscal stress. It is based on a wide range of fiscal and financial-competitiveness indicators that have proven to be a good predictor of emerging fiscal stress in the past.

([182])The assumptions underlying the Commission's 'no-fiscal policy change' baseline include in particular: (i) a structural primary balance, before changes in ageing costs, of -3.0% of GDP from 2024 onwards; (ii) inflation converging linearly towards the 10-year forward inflation-linked swap rate 10 years ahead (which refers to the 10-year inflation expectations 10 years ahead); (iii) the nominal short- and long-term interest rates on new and rolled over debt converging linearly from current values to market-based forward nominal rates by T+10; (iv) real GDP growth rates from the Commission 2024 spring forecast, followed by the EPC/OGWG 'T+10 methodology projections between T+3 and T+10 (average of 0.4%); (v) ageing costs in line with the 2024 Ageing Report (European Commission, Institutional Paper 279, April 2024). For information on the methodology, see the 2023 Debt Sustainability Monitor (European Commission, Institutional Paper 271, March 2024).

([183])This assessment is based on the fiscal consolidation space indicator, which measures the frequency with which a tighter fiscal position than assumed in a given scenario has been observed in the past. Technically, this consists in looking at the percentile rank of the projected SPB within the distribution of SPBs observed in the past in the country, taking into account all available data from 1980 to 2023.

([184])The stochastic projections show the joint impact on debt of 10,000 different shocks affecting the government's budgetary position, economic growth, interest rates and exchange rates. This covers 80% of all the simulated debt paths and therefore excludes tail events.

3 – Long-term fiscal sustainability risks are medium. This assessment is based on the combination of two fiscal gap indicators, capturing the required fiscal effort to stabilise debt (S2 indicator) and to bring it to 60% of GDP (S1 indicator) over the long term ([185]). This assessment is driven by the unfavourable initial deficit and debt levels, while the projected ageing-related costs have a neutral impact.

The S2 indicator points to medium risk. It signals that France would need to improve its structural primary balance by 3.6 pps. of GDP to ensure debt stabilisation over the long term. This result matches the contribution of the high initial deficit (Table A21.1, Table 2). Overall ageing-related costs are not projected to affect long-term sustainability (contribution of 0 pp. of GDP), as the projected decrease in public pension expenditure and education (contributions of -0.6 pp. and -0.7 pp. of GDP, respectively) is offset by the projected increase in health care and long-term care expenditure (each contributing 0.6 pp. of GDP).

The S1 indicator also points to medium risk. This indicator shows that a significant fiscal effort of 4.0 pps. of GDP would be needed for France to reduce its debt to 60% of GDP by 2070. This result is driven by the high level of the French government deficit and debt (contributing 3.0 pps. and 1.1 pps. of GDP, respectively) (Table 2).

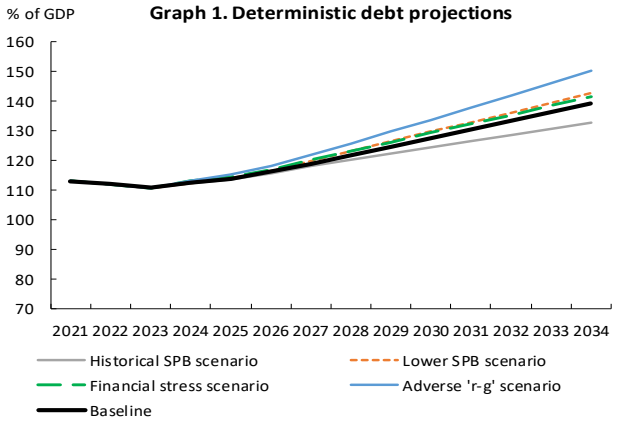
4 – Finally, several additional risk factors need to be considered in the assessment. On the one hand, risk-increasing factors relate to the recent increase in interest rates, the expected increase in gross financing needs over the medium term and the contingent liability risks stemming from the private sector, including via the possible materialisation of state guarantees granted to firms and self-employed during the COVID-19 crisis. On the other hand, risk-mitigating factors include the lengthening of debt maturity in recent years and relatively stable financing sources, with a diversified and large investor base.

([185])The S2 fiscal sustainability indicator measures the permanent SPB adjustment in 2025 that would be required to stabilise public debt over an infinite horizon. It is complemented by the S1 indicator, which measures the permanent SPB adjustment in 2025 needed to bring the debt ratio to 60% by 2070. The impact of the drivers of S1 and S2 may differ due to the infinite horizon component considered in the S2 indicator. For both the S1 and S2 indicators, the risk assessment depends on the amount of fiscal consolidation needed: 'high risk' if the required effort exceeds 6 % of GDP, 'medium risk' if it is between 2% and 6% of GDP, and 'low risk' if the effort is negative or below 2% of GDP. The overall long-term risk classification combines the risk categories derived from S1 and S2. S1 may notch up the risk category derived from S2 if it signals a higher risk than S2. See the 2023 Debt Sustainability Monitor for further details.

Table A21.1:**Debt sustainability analysis – France**

Table 1. Baseline debt projections	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gross debt ratio (% of GDP)	**113.0**	**111.9**	**110.6**	**112.4**	**113.6**	**116.0**	**118.8**	**121.7**	**124.6**	**127.5**	**130.4**	**133.3**	**136.3**	**139.2**
Changes in the ratio	-1.9	-1.1	-1.3	1.8	1.2	2.4	2.8	2.9	2.9	2.9	2.9	2.9	3.0	2.9
of which														
Primary deficit	5.2	2.8	3.8	3.3	2.8	2.9	3.0	3.0	3.0	3.0	2.9	2.9	3.0	3.0
Snowball effect	-7.1	-3.9	-4.8	-1.7	-1.6	-0.5	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.1
Stock-flow adjustments	0.0	0.0	-0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs (% of GDP)	24.9	21.9	22.1	22.5	22.5	23.0	23.7	24.4	25.0	25.7	26.3	27.0	27.7	28.3

Graph 1. Deterministic debt projections



Graph 2. Stochastic debt projections 2024-2028

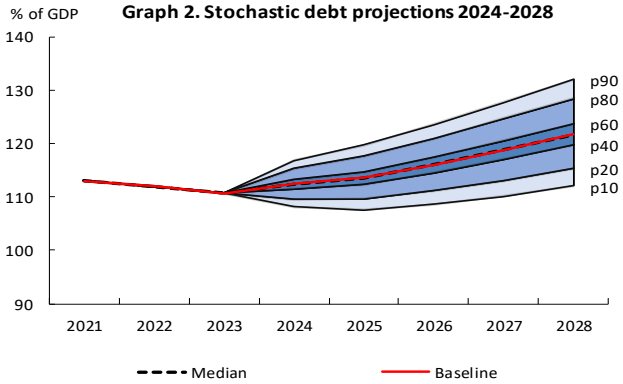


Table 2. Breakdown of the S1 and S2 sustainability gap indicators

		S1	**S2**
Overall index (pps. of GDP)		**4.0**	**3.6**
of which			
Initial budgetary position		3.0	3.6
Debt requirement		1.1	
Ageing costs		0.0	0.0
of which	*Pensions*	-0.4	-0.6
	Health care	0.5	0.6
	Long-term car	0.4	0.6
	Education	-0.5	-0.7

Source: Commission services

Table A21.2:**Heat map of fiscal sustainability risks – France**

Short term	**Medium term - Debt sustainability analysis (DSA)**								**Long term**		
			Deterministic scenarios								
Overall (S0)	**Overall**		Baseline	Historical SPB	Lower SPB	Adverse 'r-g'	Financial stress	**Stochastic projections**	**S2**	**S1**	**Overall (S1 + S2)**
LOW	**HIGH**	Overall	**HIGH**	**HIGH**	**HIGH**	**HIGH**	**HIGH**	**HIGH**	**MEDIUM**	**MEDIUM**	**MEDIUM**
		Debt level (2034), % GDP	139.2	132.7	142.7	150.2	141.4				
		Debt peak year	2034	2034	2034	2034	2034				
		Fiscal consolidation space	93%	92%	100%	93%	93%				
		Probability of debt ratio exceeding in 2028 its 2023 level						93%			
		Difference between 90th and 10th percentiles (pps. GDP)						19.9			

(1) Debt level in 2034. Green: below 60% of GDP. Yellow: between 60% and 90%. Red: above 90%. (2) The debt peak year indicates whether debt is projected to increase overall over the next decade. Green: debt peaks early. Yellow: peak towards the middle of the projection period. Red: late peak. (3) Fiscal consolidation space measures the share of past fiscal positions in the country that were more stringent than the one assumed in the baseline. Green: high value, i.e. the assumed fiscal position is plausible by historical standards and leaves room for corrective measures if needed. Yellow: intermediate. Red: low. (4) Probability of debt ratio exceeding in 2028 its 2023 level. Green: low probability. Yellow: intermediate. Red: high (also reflecting the initial debt level). (5) the difference between the 90th and 10th percentiles measures uncertainty, based on the debt distribution under 10000 different shocks. Green, yellow and red cells indicate increasing uncertainty. (For further details on the Commission's multidimensional approach, see the 2023 Debt Sustainability Monitor)

Source: Commission services