EUROPEAN
COMMISSION

Brussels, 19.6.2024
SWD(2024) 618 final

COMMISSION STAFF WORKING DOCUMENT

2024 Country Report - Malta

Accompanying the document

Recommendation for a COUNCIL RECOMMENDATION

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

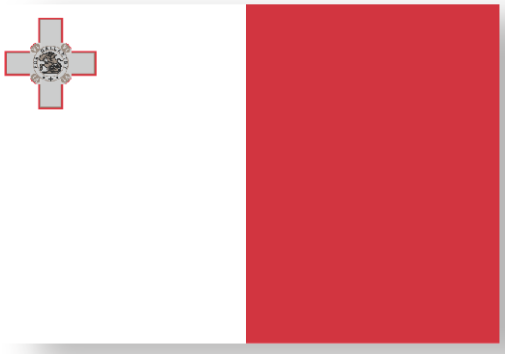
{COM(2024) 618 final} - {SWD(2024) 600 final}

European Commission

Malta

2024 Country Report

#EURO at 25

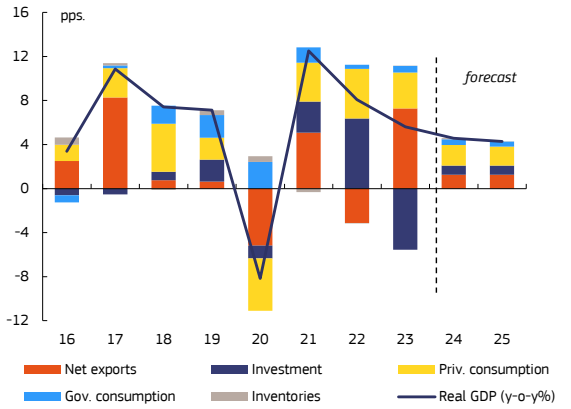


ECONOMIC AND EMPLOYMENT SNAPSHOT

Economic growth remains solid, but labour shortages and low education outcomes weigh on future growth potential

Economic growth is expected to remain robust ([1]). Malta's economy continues its strong economic growth and is expected to outperform other Member States also in 2024 and 2025 . The tourism sector continues to rebound strongly, exceeding pre-pandemic levels and having further growth prospects. GDP growth is expected to reach 4.6% in 2024 and 4.3% in 2025, driven by net exports and private consumption.

Graph 1.1: **Malta - Real GDP growth and contributions**



Source: European Commission, Eurostat

Compensation per employee in real terms declined strongly in 2022 and 2023 and the recovery is expected to be weak. In 2023, inflation, as measured by the harmonised index of consumer prices, reached 5.6% with energy prices being kept at 2020 levels. Inflation in 2024 and 2025 is forecast at 2.8% and 2.3% respectively, with continuing pressures in food and services prices, while retail energy prices are set to remain stable. Despite the adjustment to cost-of-living mechanism, growth in nominal compensation per employee remained modest at 3.1% in 2022 and 1.5% in 2023 and is expected to only gradually pick up to 2.7% in 2024 and 3.2% in 2025 on the back of labour shortages (notably in services). In real terms, compensation per employee decreased by 2.2% in 2022 and 3.9% 2023 and its recovery is expected to be weak amid low productivity gains. At the same time, increases in the statutory minimum wage helped to cushion the negative impact of inflation on low-wage earners. Income inequalities as measured by the income quintile share ratio decreased to 4.79 in 2022 (almost in line with the EU average of 4.88).

The government deficit is set to decrease but remains one of the highest in the EU. Malta's government deficit has decreased to 4.9% of GDP in 2023 and is expected to reach 3.9% in 2025. Government spending on measures to mitigate the impact of high energy prices is the main reason for this high deficit, despite strong nominal GDP growth and the phasing out of pandemic measures. The government debt-to-GDP ratio remains below 60%.

Labour productivity growth slowed down markedly after a fast recovery in 2021 and 2022. Labour productivity growth (per hour worked) was very high in the post-COVID period (9.2% in 2021 and 4.1% in 2022) but declined to 1.4% in 2023. It is expected to be slightly negative in 2024 and 2025. Both public and private investment in R&D remain critically low and the share of R&D staff (as a percentage of total employment) was less than half the EU average.

([1]) The cut-off date for the data used to prepare the 27 Country Reports was 15 May 2024.

Box 1: **Malta's competitiveness in brief**

Malta's economy is well positioned in dynamic service exports (online gaming, management and financial services) and high value-added export of goods (pharmaceutical products, electronics and microchips). Labour productivity growth (per hour worked) was high in 2022 (4.1%) but moderated in 2023 (1.4%) and is expected to be slightly negative in 2024 and 2025. Competitiveness challenges remain.

- **Skills shortages and mismatches, and low education outcomes** limit potential growth, hinder the green and digital transitions and are a bottleneck to investment.
- **Research and innovation performance is modest** as the index for research and innovation is 85.8% of the EU average, notably due to low investments in this area by both the public and private sectors. Academia-business cooperation is insufficient to promote research and innovation.
- **Malta underperforms in the green/environmental dimension,** and this has direct consequences on the country's competitiveness. Inadequate investment in sustainable energy and transport, exacerbated by recent population growth, has resulted in increased electricity outages and traffic congestion.

The Maltese labour market is performing well except for certain groups. Employment grew strongly by 6.0% in 2022 and 6.5% in 2023 delivering a high employment rate of 82.5% in Q4-2023 (vs EU 75.5%). Therefore, the country is progressing very well towards its 2030 employment target of 84.6%. However, the gender employment gap remains wide, and the gender pension gap is one of the widest in the EU. Persons with disabilities endure an employment gap that is 8.7 pps above the EU average at 30.1 pps. Both third country nationals (TCNs) and EU nationals are much less likely than Maltese citizens to remain with the same employer for more than a year. Data suggests that about 70% of termination forms submitted for TCNs are for persons who have been employed for less than 12 months ([2]). TCNs often face challenging working conditions and difficulties in accessing accommodation.

Insufficient educational outcomes and low participation in learning of low-skilled adults risk increasing labour and skills shortages. In Q1-2024, labour shortages were reported as a factor limiting production in Malta around twice as often as the EU average in services and industry, while broadly in line with it in construction. The rate of early school-leavers is on a downward trend but still remains slightly above the EU average. According to the OECD Programme for International Student Assessment (PISA), Malta has one of the highest underachievement rates in all three fields tested in the EU. The share of adults (aged 25-64) participating in education and training (in the last 12 months) is in line with the EU average, but participation of the low-skilled is lower. Efforts should continue to reach the adult learning target of 57.6% set for 2030.

Other challenges remain

Malta faces difficulties to balance strong economic growth with environmental sustainability. The green transition is held back by the dominance of fossil fuels. Renewables generate only 13.4% of Malta's energy, one of the lowest shares in the EU, and energy efficiency gains have slowed down, despite a significant potential for energy savings. Wider use of sustainable business models and materials, would increase the sustainability, quality, safety and energy efficiency of construction, as would effective implementation of the recommendations of the public inquiry into construction safety. New

([2]) Source: Central Bank of Malta (2023), Labour-turnover-Malta.pdf (centralbankmalta.org)

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

Malta performs well (SDG 8) or is improving (SDGs 4 and 9) on SDGs related to productivity. However, it still needs to step up efforts to close the gap with the EU average on both quality education (SDG 4), and industry, innovation and infrastructure (SDG 9). Malta maintains a high employment rate, low long-term unemployment and a low and further declining number of young people not in education, employment or training (NEETs). However, the Maltese research and innovation system suffers from underinvestment and a very low share of R&D personnel. Furthermore, although it is improving, also through the government's commitments as part of Malta's Smart Specialisation Strategy 2021-2027, Malta performs below the EU average regarding SDG 4, hampering economic growth and competitiveness. Decreasing education outcomes coupled with low participation of children over 3 years old in early childhood education, and a still significant number of early school-leavers, risk further exacerbating prevalent skills shortages.

- **Out of the 17 indicators, 8 SDGs remain below the EU average.** Besides SDG 4 and SDG 9 highlighted above, these relate to fairness (SDGs 2, 3, 5) and environmental stability (SDGs 11, 12, 13) (see Annex 1).

measures to reduce traffic congestion and high emissions from transport are needed for a more sustainable and people-centric economy. Sustainable water management and wastewater treatment is a concern for the water-scarce country. Malta's rapid economic development and urbanisation threaten biodiversity and generate significant waste, exacerbated by low recycling rates.

Malta faces fiscal sustainability risks in the long term. Ageing costs are projected to rise by 8.6% of GDP between 2022 and 2070, due to an expected increase in expenditure on pensions, healthcare, and long-term care. Tax revenues remain highly reliant on corporate taxes, making the country more vulnerable to future economic shocks. Malta's tax system can give rise to aggressive tax-planning practices. The country's commitments to curb these practices are a step in the right direction (see Sections 2 and 3).

Access to non-bank finance remains limited for non-financial corporations. Even though new bond issuances by non-financial corporations as a share of GDP rose slightly to 1.2% in 2022, the value of annual initial public offerings as a share of GDP plummeted to 0.3% Private equity investment levels are well below the EU average.

While steps are being taken to reduce the duration of court proceedings, these are still very lengthy. Administrative cases at first instance in Malta are estimated to take the longest time to be resolved in the EU. The clearance rate for non-criminal cases has deteriorated and is particularly concerning for civil and commercial cases. The lack of resources and prevalence of outdated work practices are among the causes of delays.

Malta performs relatively well on implementing the European Pillar of Social Rights, but challenges remain (see Annex 14). The early school-leaving rate is declining while remaining slightly above the EU average. The gender and disability employment gaps remain among the widest in the EU. Only half of the people of working age with disabilities are active in the labour market. The impact of social transfers on reducing poverty is low at 26.4% (EU 35%). Consequently, the country should persist in its endeavours to attain its 2030 poverty and social exclusion target. Free childcare is available to parents in employment or education. In 2022, the share of children aged less than 3 years in formal childcare increased to 43.1%, which is in stark contrast to the declining participation rate of children above the age of three (see Section 3).

IMPLEMENTATION OF KEY REFORMS AND INVESTMENTS USING EU INSTRUMENTS

Funding from the Recovery and Resilience Facility (RRF) and cohesion policy is mutually reinforcing Malta's efforts to boost its competitiveness and foster sustainable growth. In addition to the EUR 328.2 million of RRF funding described in Annex 3, cohesion policy funding provides Malta with EUR 772.8 million for the 2021-2027 period. Support from these two instruments combined represents close to 5.68% of the country's GDP in 2023, compared to an EU average of 5.38% (see Annex 4).

Under its recovery and resilience plan (RRP), Malta has launched important policy measures that are expected to improve the country's competitiveness. In particular, the RRP envisages major reforms in the areas of taxation and rule of law, healthcare, transport, and waste management. Malta also undertook substantial investments in a number of areas: energy renovation of public and private sector buildings; strengthening and widening the electricity grid; building battery storage capacity; zero-emission transport; digitalisation; and modernisation of healthcare.

Cohesion policy funding helps tackle Malta's growth and competitiveness challenges and reduce the country's territorial and social cohesion disparities. Under the 2014-2020 cohesion policy programming period, support focused on the areas of research and innovation, water supply, energy efficiency, job maintenance in the context of COVID-19, early school-leaving, and social inclusion. For the current 2021-2027 programming period, support is aimed at further promoting Malta's competitiveness, the green and digital transitions, social cohesion, skills development, and improving the living and working conditions of Malta's people.

The implementation of Malta's recovery and resilience plan is well underway. Malta submitted two payment requests, corresponding to 53 milestones and targets in the plan and resulting in an overall disbursement of EUR 166.4 million by 16 May 2024. Beyond the two payment requests, the implementation of the plan is on track (see Annex 3).

Unlocking investments for the green transition

Malta has taken steps to improve the energy efficiency and productivity of its building stock and to electrify transport. Within the RRP, Malta has begun to provide grants to improve energy efficiency and lower carbon emissions through the retrofitting of public and private sector buildings. At the same time, investment through the European Regional Development Fund (ERDF) is supporting marketable projects by SMEs and households, prioritising the worst-performing buildings and multi-housing blocks. Measures under the RRP also include the electrification of road transport, private and public, and the introduction of free public transport, financed by national funds, in a bid to reduce traffic congestion. Many challenges remain, yet by leveraging RRF and ERDF funds, Malta is smartly reducing carbon emissions, enhancing productivity, and boosting private investment, all contributing to elevating the country's competitiveness.

The RRF and cohesion policy funds are helping to modernise waste management in Malta. The Cohesion Fund investment in the construction of the Organic Processing Plant targets separately collected organic waste. The investment enables the recovery of energy by capturing the by-products of organic

waste treatment and it creates conditions for the reduction of landfilling of organic waste. The RRP is complementing this investment with a reform to reorganise waste collection on the Maltese Islands. Waste collection services, including of recyclables, have been consolidated in six regional bodies across Malta and Gozo (from the previous fragmented framework spread across 68 local councils). The combined investment and reform have resulted in increased economies of scale and more efficient waste collection systems.

Investing in people for economic growth and social resilience

Malta is implementing policy reforms and investments under both the RRP and the European Social Fund Plus (ESF+) to improve the healthcare sector. Apart from direct investment in the new Blood, Tissue and Cell Centre or diagnostic equipment, in the RRP, Malta committed to the implementation of tools for improved human resources management in healthcare and measures to improve the well-being of foreign health workers. The ESF+ Programme supports training for health professionals, including in long-term care. These reforms should improve productivity and help to shift the treatment of chronic diseases from cost-intensive care in hospitals to primary care and community-care settings, thereby improving the long-term fiscal sustainability of the sector.

Given the specific difficulties to recruit workers in Malta, the RRP helps to align job offers with labour market needs. Under its RRP, Malta has launched an e-college platform; this is to expand guidance and opportunities on upskilling and reskilling for all adults, and in particular for the low-skilled. Regarding green skills, the first 500 professionals have been trained and certified for the green transition in the construction sector. Furthermore, Malta has started to provide scholarships to master's and PhD students in innovative technologies, such as artificial intelligence. Complementarily, the biggest share of Malta's ESF+ budget (43%) is dedicated to quality and inclusive education and training.

By making effective use of various funding sources, Malta is supporting people with disabilities. As part of the RRP, Malta has rolled out multi-sensory learning rooms for students with severe needs in colleges and autism units in middle schools, thus supporting the further integration of pupils with special needs into the mainstream school environment. Malta's ESF+ Operational Programme includes targeted support for people with disabilities once they leave the education system. Measures cover generic and specific training services to achieve skills relevant for work (including ICT skills) and independent living, and for work exposure support, apprenticeships and job coaching, and guidance and mentoring services.

Strengthening the digital capacity and the institutional framework

Malta undertook major steps to improve fairness in taxation and to fight money laundering and financial crime. As part of the RRP, Malta adopted a new law introducing transfer pricing rules as of January 2024, aiming to prevent opportunities of corporate profit shifting. The rules will also help to level the playing field between local and foreign businesses. Malta has abolished the tax exemption for dividends from non-cooperative jurisdictions and it introduced spontaneous exchange of information on new applicants for the country's citizenship scheme. Simultaneously, in 2023, the Technical Support Instrument supported Malta in reinforcing tax compliance through real-time reporting, and in enhancing the quality and use of tax information exchanged between Member States in the context of the Directive on administrative cooperation. Challenges remain (see Section 3), yet these reforms collectively contribute to creating a more transparent and compliant business environment. In tandem, as part of a comprehensive agenda to fight money laundering, Malta has invested in numerous training programmes for its

Box 3:

Combined action for more impactful EU funds

To boost economic growth and maximise the impact of EU funding, Malta's RRP includes reforms that support investments under other EU instruments, creating important synergies and complementarities between the various funds. For example, to reduce waste and stimulate reuse and recycling, Malta's RRP includes reforms to shift waste collection to regions, including the collection of recyclables. This is complemented by investments financed under the ERDF to enable the recovery of energy by capturing the by-products of organic waste treatment and to create conditions for the reduction of landfilling of organic waste. Additional reforms under Malta's RRP relate to the adoption of new construction standards, combined with training and certifying professionals in the construction industry. These reforms are creating a supportive broader domestic investment framework, including for energy renovation projects financed by combined resources from the RRP and ERDF, all aiming to reduce carbon emissions, and to enhance productivity and economic competitiveness.

administration throughout 2021 and 2024, with a focused approach on anti-money laundering and counterterrorism financing.

The RRF and cohesion policy funds complement each other in supporting the digitalisation of Malta's public and private sectors. As part of its RRP, Malta has begun its investment in the government's core digital infrastructure (backbone) to improve its resilience, capacity and security. It is also investing in improving digital public services. The ERDF contributes to the digitalisation of public administration by supporting the transition to a paperless environment. This will offer several benefits, including additional layers of security and improving the interactions of citizens and businesses with the government. With respect to the private sector, Malta has launched three grant schemes funded under the RRF to support business investment in digitalisation, notably by SMEs. The ERDF further assists companies through non-repayable grants to invest in digitalisation, including in digital infrastructure and equipment, software and licences, and the development of plans for the digitalisation of products, services and processes. Advancing the digitalisation of both the public and the private sector in Malta is key to fostering innovation and competitiveness.

Malta has undertaken measures to strengthen the justice system, including through digitalisation. A well-functioning justice system increases trust in the independence and efficiency of the institutions and is a prerequisite for investment and competitiveness in any economy. Several reforms have been implemented to strengthen the independence of the institutions, including reforms in the method of appointing the judiciary, the Commissioner of Police, and Malta's main anti-corruption body. Following the creation of a separate prosecution service in 2019, Malta's RRP enables the transfer of prosecution cases from the police through legislative amendments and the staffing of the Attorney General's office. In 2023, the Technical Support Instrument supported Malta in implementing the business reorganisation action plan of the office of the Attorney General and the office of the State Advocate. It was also instrumental in assisting Malta to draft a national digital justice strategy for 2022-2027. Most of the actions included in this strategy are being implemented through an investment under Malta's RRP. This investment also sees complementarities between the RRF, the Asylum, Migration and Integration Fund 2014-2020, and the ESF+ 2021-2027. This enables the integration of third-country nationals into Maltese society, including through the provision of ICT hardware and software to migrants facing economic hardship.

FURTHER PRIORITIES AHEAD

Malta faces additional challenges related to the green transition, fiscal sustainability and taxation, shortages of skilled workers and low education outcomes, the labour market and social inclusion of disadvantaged groups, modest research and development intensity, and the efficiency of the justice system. Tackling these challenges will help boost Malta's long-term competitiveness and ensure the resilience of its economy. It will also help Malta to make further progress in achieving the UN Sustainable Development Goals (SDGs). It is important that the identified challenges are addressed at both national and regional level to reduce disparities between Malta and Gozo, to ensure a cohesive territory on the island of Malta, and to improve the administrative and absorption capacity in a balanced way across the islands.

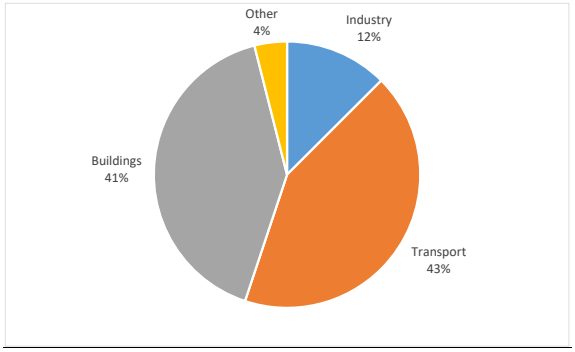
Promoting the green transition

Malta's green transition is stymied by the dominance of fossil fuels in its economy (see Annexes 6, 7 and 8). Although increasing in share, renewables generate only 13.4% of Malta's energy, one of the lowest shares in the EU, well below the indicative 2030 target of 28%. While installed solar energy capacity from photovoltaics is slowly increasing (by 4% in 2023) ([3]), the ongoing reform under the recovery and resilience plan (RRP) mandating solar energy installations on certain new buildings should considerably increase their roll-out. A preliminary market consultation for a floating solar farm was launched in February 2024.

([3]) IRENA report (2023).

Energy efficiency gains have slowed down, despite a significant potential for energy savings in buildings. Malta's final energy consumption in 2022 increased by 19.3% compared to 2021. Buildings, accounting for almost half of Malta's total energy demand (see Graph 3.1), contributed to the increased energy consumption. Energy emergency support measures are still in force and weaken the price signal for saving energy. More precise targeting, and setting a time frame for their phase-out, would improve the effectiveness and fiscal sustainability of subsidies (the fiscal cost of these measures is estimated at 2% of GDP in 2024 and 1% in 2025). Safety and quality concerns continue to afflict the construction industry. Robust implementation of recommendations put forward by the recent public inquiry would increase the quality, safety and energy efficiency of construction.

Graph 3.1: **Energy demand by sector in Malta, 2022**



Source: Eurostat

There is a need to reduce traffic congestion and high emissions from road transport. Greenhouse gas emissions from road transport have increased by 23.3% compared to 2005 levels (see Annex 6). The ban on rentals of e-scooters from March 2024 reduced the options of alternative mobility. There has been an increase of more than a third in public transport users since the bus service was made free in late 2022. However,

passenger cars still account for 86% of passenger transport in Malta. This trend also reflects the fact that there are limited disincentives to private car use. Preference should be given to quality of public transport, maritime freight transport, improved pedestrian walkways, bus lanes, and the development of multimodal roads.

Adoption of electric vehicles should be accelerated. In 2022, electric vehicles constituted merely 0.8% of the passenger car fleet. Financial incentives for the purchase of such vehicles are a step in the right direction. However, in 2023, only one government-owned publicly accessible charging point for every 33 electric vehicles was offered (EU: 1 for every 10 vehicles). ERDF funding is being utilised to accelerate the installation of public charging points, to incentivise their purchase, in line with Malta's climate ambition.

Sustainable water management is a concern for the water-scarce country, especially in light of rising demand (see Annex 6). Only 37% of Malta's surface water bodies are in a good ecological status and 53% in a good chemical status. Groundwater in Malta is under strain from municipal water supply, agriculture, tourism, and population growth. Excessive abstraction of groundwater is causing its salinisation. Moreover, Malta remains increasingly vulnerable to severe storms, flash urban floods and heatwaves.

Malta generates a very large amount of municipal waste and most of it is landfilled. Municipal waste generation stood at 618 kg per capita in 2022, among the highest in the EU. The recycling rate for municipal waste was only 13.6% in 2021, far below both the EU average of 48.6% and the 2020 target of 50%.

Malta continues to face challenges in the areas of biodiversity and nature protection. At the end of 2021, 29% of Malta's land area and 5.5% of its marine area was under protection. The illegal practices of migratory bird hunting and trapping create further problems for wildlife.

Addressing fiscal sustainability and taxation challenges

The projected future growth in health, long-term care and pension expenditure poses risks to long-term fiscal sustainability ([4]). Age-related government spending is expected to increase significantly. In 2022, public pension expenditure (currently at 6.2% of GDP, among the lowest in the EU), is projected to increase to 10.5% of GDP by 2070, one of the highest projected increases in the EU. Government expenditure on healthcare, relatively low at 5.1% of GDP in 2022, is projected to surge to 7.2% of GDP by 2070, close to the projections for the EU average (7.3%). Government spending on long-term care is also expected to increase from 1.2% of GDP in 2022 to 3.4% by 2070. Home care has a share of only 8% (compared to 29% at EU level).

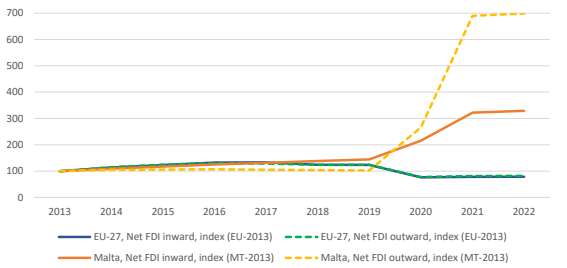
Efforts could be made to strengthen the independent fiscal institution. The Malta Fiscal Advisory Council is a small independent fiscal institution. Policy costing and sustainability analysis is not explicitly included in the mandate of the Malta Fiscal Advisory Council, but it is free to carry out such tasks. Since 2015, its budget has been frozen in real terms by law.

Malta's tax system has potential for efficiency improvements, including regarding collection. In 2022, tax revenue stood at 29% of GDP (compared to the EU's 40.2%), as labour taxes remain lower than the EU average. The system remains highly reliant on corporate income taxes, making it vulnerable to economic downturns. Malta's property tax revenues accounted for only 0.8% of GDP in 2021, substantially lower than the EU average of 2.2%, and there is no recurrent tax on property. Despite levying one of the lowest standard VAT rates in the EU, in 2021 Malta had the second-highest VAT gap in the

([4]) See Annex 21. The debt-sustainability analysis shows that risks to the sustainability of Malta's government finances are high in the long term.

EU at 25.7% (the gap between the theoretical tax liability and revenues actually collected), a level that is over five times higher than the median.

Graph 3.2: **Share of net inward and outward foreign direct investment (FDI) stock held by entities with no or little presence in Malta (Special Purpose Entity)**



(1) Net stock data have been used because data on assets and liabilities are unavailable for Malta. (2) 2020 data on net outward FDI are unavailable for Malta.
Source: European Commission

Certain indicators suggest that companies are using Malta's tax system for aggressive tax planning. These include the persistently high level of foreign direct investments held by legal entities that have little or no employment, operations or physical presence in Malta and which have increased much faster since 2019 than in the EU (Graph 3.2), and the large payments of royalties, interest and dividends.

Malta has taken important steps to curb aggressive tax planning practices, but more is needed to close loopholes. Malta has implemented international and European agreed initiatives and is also tackling the challenge in its RRP (see Section 2). Importantly, Malta committed to introduce new legislation to address risks of aggressive tax planning stemming from inbound and outbound payments. However, until Malta enacts and enforces the new legislation imposing withholding taxes (or equivalent defensive measures) on payments to low-tax or zero-tax jurisdictions, there is a risk of these payments leaving the EU without being taxed. Furthermore, Malta's treatment of resident non-domiciled companies continues to provide multinational firms with opportunities for double non-taxation. These issues are only partly addressed by the EU's Minimum Tax Directive ([5]), which applies only to large corporations.

Malta's investor citizenship scheme continues to raise serious concerns in light of EU citizenship and the principle of sincere cooperation. The European Commission considers that Malta should repeal its investor citizenship ('golden passport') scheme and in September 2022, decided to refer Malta to the Court of Justice of the European Union. The referral took place in March 2023 and the procedure is still ongoing. Such a scheme also presents inherent risks regarding security, money laundering, tax evasion, and corruption ([6]).

Ensuring equal opportunities and competitiveness through quality education and training

Labour and skills shortages and mismatches are a pervasive bottleneck to competitiveness and the twin transitions. More than half of all businesses in Malta consider that their growth was being held back by skills shortages (62%) ([7]). In Q1-2024, labour shortages were reported as a factor limiting production in Malta around twice as often as the EU average in services (52.2% compared to 26.8%), and industry (46.3% compared to 22.8%). Furthermore, 69% of enterprises report hard-to-fill vacancies for jobs requiring ICT specialist skills (EU 63%; see Annex 10). Skills mismatches remain a pressing challenge in Malta, both in terms of levels and fields of skills. Labour and skills

([5]) Council Directive (EU) 2022/2523 of 14 December 2022, Available at: http://data.europa.eu/eli/dir/2022/2523/oj

([6]) European Commission (2019): https://commission.europa.eu/document/download/8606453f-7ee7-432b-b49d-f4b9feebee97_en?filename=com_2019_12_final_report.pdf

([7]) Eurobarometer on the European Year of Skills, 2023.

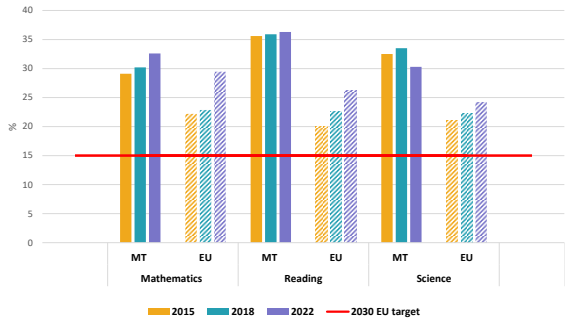
shortages may also create bottlenecks in the transition to a net-zero economy ([8]).

Early school-leaving and low participation in learning among the low-skilled risks further increasing skills shortages. The rate of early school-leavers is on a downward trend (-8.1 pps since 2012) but remains slightly above the EU average in 2023 (10.0% vs EU 9.5%), increasing the already large pool of low-skilled adults (15-64 age group; 33.1% vs EU 24.9%). Despite the share of adults (25-64 age group) participating in education and training in the last 12 months being in line with the EU average, significant differences exist among levels of education. Among low-skilled adults (25-64), the same share was only 16.3%, against 37.6% among the medium-skilled, and 65.9% among those with a tertiary education ([9]). Although 63% of adults had at least basic digital skills in 2023 (EU: 55.5%), the differences by skills levels are significant. Enhancing education outcomes and skills, notably for the low-skilled, can help increase productivity and wages.

The lack of basic skills among young people represents a risk for skills development and competitiveness. The latest results of the OECD Programme for International Student Assessment (PISA) ([10]) show that 32.6% of Maltese students underperformed in mathematics, 36.3% in reading, and 30.3% in science. These are among the highest shares of low achievement in the EU (see Graph 3.3). The rate has not changed in mathematics and reading since 2015 ([11]). In science, the share has fallen by 2.2 pps since then, but it is still 6.1 pps higher than the EU average (30.3% vs 24.2%). These negative results are in line with those recorded by the 2021 Progress in International Reading Literacy Study. The Maltese rate of low-achieving fourth graders in reading was among the highest of the participating EU education systems (30% vs 23% EU-19 level) ([12]). Factors that may contribute to poor performance include a high rate of absenteeism, and challenges linked to the teaching profession that have an impact on the quality of teaching (see Annex 15).

Underachievement is widespread and the socio-economic gap has not improved since 2015. In 2022, around 47.7% of students from the bottom socio-economic quartile lacked basic skills in mathematics (EU 47.5%) and the rate for the top quartile was also high (17.2% vs EU 11%). This shows that underachievement does not only concern disadvantaged students. Results are significantly better for students attending independent schools, pointing to fragmentation in the school system (see Annex 15).

Graph 3.3: **Underachievement rates by field, PISA 2015, 2018 and 2022**



Source: OECD (2023)

Participation in early childhood education and care by children above the age of 3 is continuing to fall. The rate stood at 86.2% in 2021, compared with an EU average of 92.5%, and has further decreased by 2.9 pps since 2020. At the same time, despite significant improvements over the last decade, the gender employment gap remains wide (14.2 pps in 2023 vs EU 10.2 pps), while the gender pension gap is one of the widest in the

([8]) European Labour Authority 2024, EURES Report on labour shortages and surpluses 2023.

([9]) Adult Education Survey, adults in learning in the past 12 months, special extraction excl. guided on-the-job training

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

([11]) Malta did not participate in PISA 2012.

([12]) European Commission, (2023). Education and Training Monitor – Malta.

EU (45 pps vs EU 26.1 pps in 2022; age group 65-79) (see Annex 14).

Poverty indicators in Malta are below the EU average in general but remain high for specific groups. The share of Maltese people at risk of poverty or social exclusion stood at 20.1% in 2022, slightly below the EU average. However, this rate remained high among non-EU nationals (30.6%), low-skilled adults (30.9%), people aged over 65 (33.3%), in particular older women, and persons with disabilities (36%). The latter is also linked with a high and rising disability employment gap, which, at 30.1 pps, is far above the EU average (21.4 pps). Third-country nationals often face challenging working conditions, are more likely to be victims of abusive behaviour from employers and agencies, and face difficulties in accessing accommodation. Although the share of children in Malta at risk of poverty or social exclusion remains below the EU average, children of single parents or children with low-skilled parents face a greater risk. The poverty-reducing impact of social transfers (excluding pensions) remains at 26.4% (vs EU 35.0%), one of the lowest in the EU (see Annex 14).

Increasing research and innovation to support productivity and competitiveness

The potential of research and innovation (R&I) for boosting productivity and competitiveness remains underutilised. Malta continues to be a 'moderate innovator', according to the 2023 European Innovation Scoreboard. Its performance stands at 85.8% of the EU average, although the country's performance gap with the EU has become smaller. The effective implementation of the actions set out in the recently adopted smart specialisation strategy for 2021-2027 and the national research and innovation strategic plan for 2023-2027 is key to improving the R&I ecosystem and performance in Malta.

Malta suffers from underinvestment in R&I in both the public and private sectors. Total R&D intensity is significantly lower than the EU average (0.69% vs 2.24% of GDP) (see Annex 11). Public investment in R&D has been stagnant since 2010 and remains well below the EU average. Despite a progressive increase, private expenditure in R&D is very low compared to other Member States.

The lack of human capital weighs on the innovation capacity. The shortage in human resources specifically for R&I is a major concern. The number of new graduates in science and engineering is critically low and continues to decline. Also, the number of researchers employed in both the public and the private sector is very low.

Capital markets and private capital investment remain relatively underdeveloped, limiting the options available to non-financial corporations for financing. There may be scope to strengthen investors' trust in stock market listings, and to raise the overall attractiveness of market financing, by promoting high standards of corporate governance and disclosure. Moreover, further efforts can be made to facilitate initial public offerings, and to reduce costs for issuers and investors. The promotion of financial literacy is also key to fostering retail investment.

Improving the efficiency and quality of the justice system

While Malta has registered improvement in the length of judicial proceedings, this remains among the longest in the EU. The estimated time needed to resolve administrative cases at first instance has decreased from 1 356 to 1 081 days but remains the longest in the EU. In 2022, improvements were also registered in the average duration of litigious civil and commercial cases at first instance, down to 491 days from 529 in 2021, though it remains relatively long. The clearance rate for civil, commercial and administrative cases worsened from 89% in 2021 to 87% in 2022 (see Annex 13). This led to the Commission

Box 4: **The mid-term review of cohesion policy funds for Malta**

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 for a proposal by the Member State for the definitive allocation of 15% of EU funding included in each programme.

Malta 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. Against this background, it remains important to continue implementing the planned priorities, with particular attention to the following: (i) investments in energy efficiency and renewable energy, to promote energy savings, to strengthen sustainability in the energy sector and to reduce its dependence on international energy sources; (ii) boosting investments in sustainable multimodal solutions and active transport with a view to alleviate traffic congestion and curb emissions from road transport; (iii) stepping up efforts for sustainable water and waste water management; (iv) supporting circular economy practices and maximising the recycling potential in order to reduce landfilling and to attain recycling targets; (v) strengthening adult learning, to increase the skills level of the population and address labour shortages; and (vi) promoting the labour market and social integration of vulnerable groups, especially third-country nationals and persons with disabilities, and gender equality in the labour market.

Malta could benefit from the opportunities provided by the Strategic Technologies for Europe Platform (STEP) initiative to support the strategic autonomy of the EU and the competitiveness and sustainability of industry ([13]).

issuing a recommendation to Malta in the 2022 and 2023 Rule of Law Reports.

Malta's RRP introduces measures to improve the efficiency of the justice system although a lack of resources is still seen as a major stumbling block towards more progress. The creation of a separate prosecution service, effectively relieving the police of most of its prosecutorial functions in the magisterial courts, has enabled greater specialisation in prosecutions and more time for the police to devote to investigations. However, a lack of resources in the courts is hindering the efficiency of justice. While the number of judiciary members is at an all-time high, with a net increase of 11 judges and magistrates appointed since 2020 (also as part of Malta's commitments under its RRP), the number of judiciary members per inhabitant remains comparably low and specialisation is often lacking. The shortage of skilled staff, notwithstanding recruitment efforts being undertaken, is also noteworthy. Any increase in human capital must be matched by increased space availability, both in terms of court rooms and office space.

Modernising certain work practices would also improve the functioning of the justice system. A recent revision in the appeals procedure, allowing cases to proceed to judgment following a written procedure rather than in open court, reduced the backlog in the Courts of Appeal. Several other procedures, governed by old laws, could also benefit from improvements. Undertaking impact assessments to assess the effects that proposed legislation would have on the functioning of the courts could also reduce the burden of new legislation on the work of the judiciary. Also, there is no formalised procedure for public participation in the legislative process, which led to Malta receiving a recommendation from the Commission in the 2023 Rule of Law Report.

([13]) Regulation (EU) 2024/795

KEY FINDINGS

With its wide policy scope, Malta'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:

- **Electrifying road transport** and introducing free public transport;
- **Strengthening and widening the electricity grid**, and streamlining permitting procedures for renewable energy projects;
- **Improving the management of construction and demolition waste** and reorganising waste collection;
- **Energy efficient retrofitting of commercial and public buildings**;
- **Strengthening the digitalisation** of the public sector;
- **Reducing high shares of early school-leavers and low-skilled adults** and improving the inclusiveness of education;
- **Fostering resilience of the health system**;
- **Strengthening the independence and functioning of justice institutions**, and improving the anti-corruption and anti-money-laundering frameworks;
- **Revising the tax system**, including by adopting legislation to address features enabling aggressive tax planning practices.

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

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

- **Strengthening fiscal sustainability** of the pension, health and long-term care systems, while maintaining their adequacy;
- **Addressing the remaining features of the tax system** that facilitate aggressive tax planning;
- **Taking concrete steps to phase out emergency energy support measures.**
- **Increasing efficiency of the justice system** to shorten court proceedings;
- **Fostering research and innovation** and improving the business environment and access to non-bank finance;
- **Strengthening the quality and labour market relevance of education and training,** to address low educational outcomes as well as severe skills shortages and mismatches;
- **Strengthening targeted policies** to ensure equal labour market access and opportunities for all;
- **Ensuring adequate and effective social protection** for vulnerable groups, including children;
- **Increasing the share of renewable energy** in the energy mix;
- **Alleviating traffic congestion,** improving the quality of public transport, and improving infrastructure for cycling and walking;
- **Curbing the over-extraction of groundwater**, limiting waste generation, increasing recycling, and improving biodiversity.

ANNEXES

LIST OF ANNEXES

Cross-cutting indicators 21

A1. Sustainable Development Goals 21

A2. Progress in the implementation of country-specific recommendations 23

A3. Recovery and resilience plan – implementation 27

A4. Other EU instruments for recovery and growth 29

A5. Resilience 32

Environmental sustainability 34

A6. European Green Deal 34

A7. Energy transition and competitiveness 38

A8. Fair transition to climate neutrality 43

Productivity 45

A9. Resource productivity, efficiency and circularity 45

A10. Digital transformation 47

A11. Innovation 50

A12. Industry and single market 52

A13. Public administration 57

Fairness 59

A14. Employment, skills and social policy challenges in light of the European Pillar of Social Rights 59

A15. Education and training 61

A16. Health and health systems 63

A17. Economic and social performance at regional level 65

Macroeconomic stability 67

A18. Key financial sector developments 67

A19. Taxation 69

A20. Table with economic and financial indicators 71

A21. Debt sustainability analysis 72

LIST OF TABLES

A2.1. Summary table on 2019-2023 CSRs 24

A3.1. Key facts of the Maltese RRP 27

A3.2. Measures in Malta's RRP 28
A4.1. Support from EU instruments in Malta 31
A5.1. Resilience indices across dimensions for Malta and the EU-27 32
A6.1. Indicators tracking progress on the European Green Deal from a macroeconomic perspective 37
A7.1. Key Energy Indicators 41
A7.1. Key Energy Indicators 42
A8.1. Key indicators for a fair transition in Malta 44
A9.1. Circularity indicators 46
A10.1. Key Digital Decade targets monitored by the Digital Economy and Society Index indicators 49
A11.1. Key innovation indicators 51
A12.1. Industry and the Single Market 55
A13.1. Public administration indicators 58
A14.1. Social Scoreboard for Malta 59
A14.2. Situation of Malta on 2030 employment, adult learning and poverty reduction targets 60
A15.1. EU-level targets and other contextual indicators under the European Education Area strategic framework 62
A16.1. Key health indicators 64
A17.1. Selected indicators at regional level in Malta 66
A18.1. Financial soundness indicators 68
A19.1. Taxation indicators 70
A20.1. Key economic and financial indicators 71
A21.1. Debt sustainability analysis - Malta 74
A21.2. Heat map of fiscal sustainability risks Malta 74

LIST OF GRAPHS

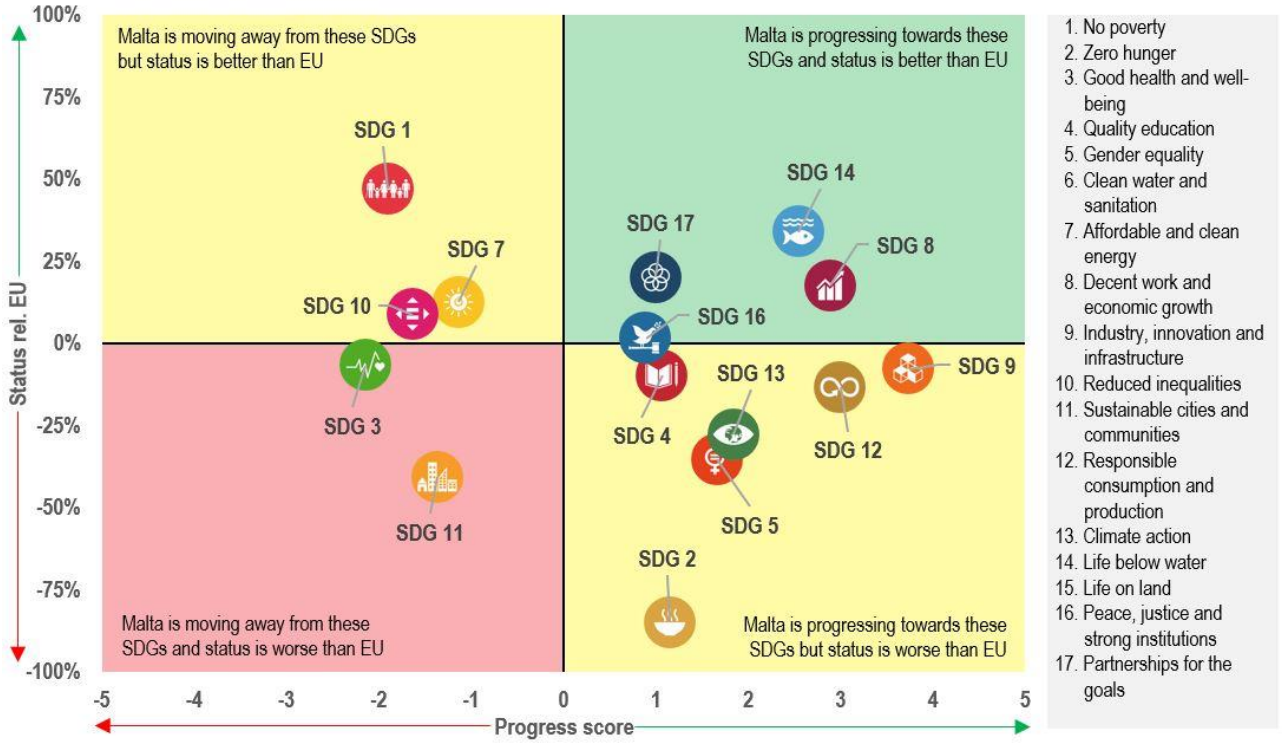
A1.1. Progress towards the SDGs in Malta 21
A2.1. Malta's progress on the 2019-2023 CSRs (2024 European Semester) 23
A3.1. Total grants disbursed under the RRF 28
A4.1. Distribution of cohesion policy funding across policy objectives in Malta 30
A4.2. Distribution of RRF funding by pillar in Malta 30
A6.1. Greenhouse gas emissions from the effort sharing sectors in Mt CO2eq, 2005-2022 34
A6.2. Changes in livestock density and organic farming 36
A6.3. Environmental investment gap, annual average 36
A7.1. Malta's energy retail prices for households and industry & service 38
A7.2. Trends in electricity prices for non-household consumers (EU and foreign partners) 39
A7.3. Malta's installed renewable capacity (left) and electricity generation mix (right) 39
A8.1. Fair transition challenges in Malta 43
A8.2. Job vacancy rate in transforming sectors and mining and quarrying 44
A9.1. ETS emissions by sector since 2013 45
A9.2. Treatment of municipal waste 46
A11.1. Public expenditure on R&D as a % of GDP 50
A12.1. Real labour productivity (GDP per hour worked), by sector, 2015=100 52
A12.2. Shares of services exports 53
A13.1. a) Government effectiveness, open government data and c) share of employees by education attainment level 58
A15.1. Underachievement in mathematics in Malta by country of birth, PISA 2022 61
A16.1. Life expectancy at birth, years 63
A16.2. Projected increase in public expenditure on healthcare over 2024-2070 63
A17.1. Malta, NUTS3: GDP per capita, Average Annual GDP per capita growth, Average Annual Productivity Growth 65
A18.1. Evolution of credit activity by sector 67
A19.1. Tax wedge for single and second earners as a % of total labour costs, 2023 69
A19.2. Total outgoing dividends by Member States in % of GDP, 2022 70

ANNEX 1: SUSTAINABLE DEVELOPMENT GOALS

This Annex assesses Malta'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.

While Malta is improving on some of the SDG indicators related to *environmental sustainability* (SDGs 2, 9, 12, 13), though still above the EU average, it is moving away from SDG 7 (Affordable and clean energy). Malta performs well on SDG 14 (Life below water). However, it is moving away from the target and needs to catch up with the EU average on SDG 11 (Sustainable cities and communities). Although Malta's energy consumption per capita is below the EU average (SDG 7), the share of renewable energy in gross final energy consumption (13.4%) is far below the EU average (23% in 2022; SDG 13). As for affordable energy, the percentage of the Maltese population unable to keep their homes adequately warm has increased in the last 5 years (7.6% in 2022 against 6.3% in 2017) but is below the EU average (9.3%). Waste generation per capita was significantly higher than the EU average in 2020 (MT: 6 847 kg against EU: 4 813 kg) (SDG 12), and the rate of recycling for municipal waste is less than a third of the EU average (12.2% against 48.6% for the EU in 2022; SDG 11). Only 7.4% of the Maltese population were connected to at least secondary wastewater treatment in 2021 compared to 80.9% at EU level (SDG 11). Various measures in the recovery and resilience plan (RRP) aim to contribute to better energy efficiency, clean

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



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.

energy, sustainable transport, and a circular economy. Examples include energy-efficiency renovations of private and public buildings, investment in renewable energy for roads and public spaces, promotion of sustainable transport, and improvements in waste management and measures to increase recycling and reuse, including in the construction and demolition industries. Alongside the RRP measures, Cohesion Policy also supports multimodal solutions to improve mobility (e.g. pedestrian pathways, cycling lanes) and investment in an organic processing plant to reduce the amount of organic waste that goes to landfill.

While Malta performs well on decent work and economic growth (SDG 8) and, though still below the EU average, it is improving on education and gender equality (SDGs 4, 5), it is moving away from several SDGs related to *fairness*, including those addressing poverty and inequalities (SDGs 1, 3, 7, 10). Malta has very low self-reported unmet medical needs (0.3% in 2022 against 2.2% for the EU), but the obesity rate is increasing while healthy life expectancy at birth, though still above the EU average, is decreasing (SDG 3). On SDG 4 (Quality education), Malta has significantly decreased its share of early leavers from education and training, which fell from 14% (2018) to 10.0% in 2023, although it remains slightly higher than the EU average (9.5%), and the EU/non-EU citizenship gap is considerable (SDG 10). There is room for improvement in increasing basic skills levels (32.6% of low-achieving 15-year-olds in mathematics against 29.5% for the EU in the OECD Programme for International Student Assessment (PISA) 2022). The share of children over 3 in early childhood education considerably decreased from 95% in 2016 to 86.2% in 2021, far below the EU average (92.5%). Furthermore, the gender employment gap (SDG 5), though improving, is particularly wide in Malta (14.2 percentage points (pps) against 10.2 pps for the EU in 2023). Although still below the EU average, the share of people at risk of poverty or social exclusion (SDG 1) is rising (20.1% in 2022, up from 19.4% in 2017), with a significant urban-rural gap (SDG 10). Reforms and investments in the Maltese RRP are helping to strengthen the health system provide quality inclusive education and training, and promote female labour market participation.

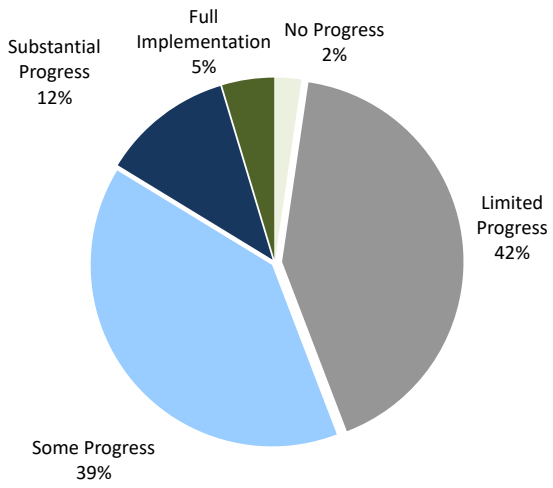
On SDG indicators related to *productivity*, Malta performs well (SDG 8) or is improving (SDGs 4, 9). Malta steadily increased its tertiary education rate from 40.2% in 2018 to 46.3% in 2023 (against 43.1% for the EU; SDG 4). In addition, both adult participation in learning in the past 4 weeks (16.5%) and the percentage of adults with at least basic digital skills (SDG 4; 63%) are above the EU average (12.7% and 55.6%, respectively). However, regarding innovation (SDG 9), the Maltese research and innovation system suffers from underinvestment as shown by the indicator on gross domestic expenditure on R&D (0.69% of GDP in 2022 compared to the EU average of 2.24%) and the share of R&D personnel (0.75% of the active population in 2022 compared to the EU average of 1.53%). Complementing the Cohesion Funds, the RRP targets digitalisation bottlenecks to improve progress on meeting SDG 9 (Industry, innovation and infrastructure). Cohesion Policy also supports, amongst others, R&I infrastructure and equipment, and the development of a business incubation centre strengthening the competitiveness of Malta's economy.

Malta performs well on SDG indicators related to *macroeconomic stability* (SDGs 8, 16, 17). Regarding decent work and economic growth (SDG 8), Malta further increased its employment rate from 74.9% in 2018 to 81.7% in 2023, which is very high compared to the EU average (75.3% in 2023). At 7.5% in 2023, the share of young people not in employment, education or training is below the EU average (11.2%) and long-term unemployment is very low (0.7% against 2.1% for the EU in 2023). General government gross debt, at 50.4% of GDP, is far below the EU average (81.7% of GDP in 2023) (SDG 17). Although overall Malta performs slightly above the EU average on SDG 16 (Peace, justice, and strong institutions), Malta scores worse than the EU in the Corruption Perceptions Index (51 compared to 64 in the EU in 2023, with 0 being highly corrupt and 100 very clean). The RRP includes reforms to address several long-standing institutional challenges relating to justice as well as the fight against corruption and money laundering.

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) ([14]) addressed to Malta as part of the European Semester. These recommendations concern a wide range of policy areas that are related to 14 of the 17 Sustainable Development Goals (SDGs) (see Annexes 1 and 3). The assessment considers the policy action taken by Malta to date ([15]) and the commitments in its recovery and resilience plan (RRP) ([16]). At this stage of RRP implementation, 56% of the CSRs focusing on structural issues from 2019-2023 have recorded at least 'some progress', while 42% recorded 'limited progress' (see Graph A2.1). As the RRP is implemented further, considerable progress in addressing structural CSRs is expected in the coming years.

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



Source: European Commission.

([14]) 2023 CSRs: EUR-Lex - 32023H0901(18) - EN - EUR-Lex (europa.eu)

2022 CSRs: EUR-Lex - 32022H0901(18) - EN - EUR-Lex (europa.eu)

2021 CSRs: EUR-Lex - 32021H0729(18) - EN - EUR-Lex (europa.eu)

2020 CSRs: EUR-Lex - 32020H0826(18) - EN - EUR-Lex (europa.eu)
2019 CSRs: EUR-Lex - 32019H0905(18) - EN - EUR-Lex (europa.eu)

([15]) 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).

([16]) 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 have not yet been adopted or implemented but considered credibly announced, in line with the CSR assessment methodology, warrant 'limited progress'. 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**

Malta	Assessment in May 2024*	RRP coverage of CSRs until 2026**	Relevant SDGs
2019 CSR 1	**Some progress**		
Ensure the fiscal sustainability of the healthcare and pension systems, including by restricting early retirement and adjusting the statutory retirement age in view of expected gains in life expectancy.	Some progress	Relevant RRP measures being implemented/planned as of 2022 to 2025.	SDG 3,8
2019 CSR 2	**Some progress**		
Address features of the tax system that may facilitate aggressive tax planning by individuals and multinationals, in particular by means of outbound payments.	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2024.	SDG 8, 16
Strengthen the overall governance framework, including by continuing efforts to detect and prosecute corruption.	Some progress	Relevant RRP measures being implemented/planned as of 2020 to 2026.	SDG 16
Continue the ongoing progress made on strengthening the anti-money-laundering framework, in particular with regard to enforcements.	Substantial progress	Relevant RRP measures being implemented/planned as of 2022 to 2023.	SDG 8, 16
Strengthen the independence of the judiciary, in particular the safeguards for judicial appointments and dismissals, and establish a separate prosecution service.	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2026.	SDG 16
2019 CSR 3	**Some progress**		
Focus investment-related economic policy on research and innovation,	Limited progress	Relevant RRP measures being implemented/planned as of 2022 to 2026.	SDG 9
natural resources management,	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 6, 12, 15
resource and energy efficiency,	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2026.	SDG 7, 9, 13
sustainable transport, reducing traffic congestion and	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 11
inclusive education and training.	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 4, 8, 10
2020 CSR 1	**Some progress**		
Take all necessary measures, in line with the general escape clause of the Stability and Growth Pact, to effectively address the COVID-19 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 with regard to the health workforce, critical medical products and primary care.	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2026.	SDG 3
2020 CSR 2	**Limited progress**		
Consolidate short-time work arrangements and ensure the adequacy of unemployment protection for all workers.	Some progress	Relevant RRP measures being implemented as of 2022.	SDG 1, 2, 8, 10
Strengthen the quality and inclusiveness of education and skills development.	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 4, 8, 10
2020 CSR 3	**Some progress**		
Ensure effective implementation of liquidity support to affected businesses, including the self-employed.	Substantial progress	Not applicable	SDG 8, 9
Front-load mature public investment projects	Substantial progress	Not applicable	SDG 8, 16
and promote private investment to foster the economic recovery.	Some progress	Not applicable	SDG 8, 9
Focus investment on the green and digital transition, in particular on clean and efficient production and use of energy,	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2026.	SDG 7, 9, 13
sustainable transport	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 11
waste management,	Some progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 11
research and innovation.	Limited progress	Relevant RRP measures being implemented/planned as of 2022 to 2026.	SDG 6, 12, 15
2020 CSR 4	**Some progress**		
Complete reforms addressing current shortcomings in institutional capacity and governance to enhance judicial independence.	Some progress	Relevant RRP measures being implemented/planned as of 2020 to 2026.	SDG 16
Continue efforts to adequately assess and mitigate money-laundering risks and to ensure effective enforcement of the anti-money-laundering framework.	Substantial progress	Relevant RRP measures being implemented/planned as of 2022 to 2023.	SDG 8, 16
Step up action to address features of the tax system that facilitate aggressive tax planning by individuals and multinationals.	Some progress	Relevant RRP measures being implemented/planned as of 2022 to 2024.	SDG 8, 16

(Continued on the next page)

Table (continued)

2021 CSR 1	**Not relevant anymore**		
In 2022, maintain a supportive fiscal stance, including the impulse provided by the Recovery and Resilience Facility, and 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 national 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	**Substantial progress**		
In 2023, ensure that the growth of nationally financed primary current expenditure is in line with an overall neutral policy stance, 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.	Substantial progress	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.	Full implementation	Not applicable	SDG 8, 16
For the period beyond 2023, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions.	Limited progress	Not applicable	SDG 8, 16
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 5 October 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.		
Submit the 2021-2027 cohesion policy programming documents with a view to finalising their negotiations with the Commission and subsequently starting their implementation.	Progress on the cohesion policy programming documents is monitored under the EU cohesion policy.		
2022 CSR 3	**Limited progress**		
Take action to effectively address features of the tax system that may facilitate aggressive tax planning by individuals and multinational companies, including by ensuring sufficient taxation of outbound payments of interests, royalties, and dividends, and amending the rules for non-domiciled companies.	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2024.	SDG 8, 16
2022 CSR 4	**Limited progress**		
Reduce overall reliance on fossil fuels.	Limited Progress	Relevant RRP measures being implemented/planned as of 2022 to 2026.	SDG 7, 9, 13
Accelerate the deployment of renewables, promoting and enabling investments in wind and solar energy, including in floating offshore energy,	Limited Progress	Relevant RRP measures being implemented/planned as of 2023 to 2024.	SDG 7, 9, 13
further upgrading Malta's electricity transmission and distribution grids, and creating incentives for electricity storage to supply firm, flexible and fast-responding energy.	Some Progress	Relevant RRP measures being implemented/planned as of 2024 to 2026.	SDG 7, 9, 13
Reduce energy demand through improved energy efficiency, particularly in residential buildings.	Limited Progress	Relevant RRP measures being implemented/planned as of 2021 to 2026.	SDG 7
Reduce emissions from road transport by addressing traffic congestion through improved service quality in public transport, intelligent transport systems and investing in soft mobility infrastructure.	Limited Progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 11
2023 CSR 1	**Some 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.	No progress	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 5.9% .	Some progress	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	Not applicable	SDG 8, 16
2023 CSR 2			
Continue 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 speedy implementation of cohesion policy programmes, in close complementarity and synergy with the recovery and resilience plan.	RRP implementation is monitored through the assessment of RRP payment requests and analysis of the bi-annual reporting on the achievement of the milestones and targets, to be reflected in the country reports. Progress with the cohesion policy programming is monitored in the context of the Cohesion Policy of the European Union.		

(Continued on the next page)

Table (continued)

2023 CSR 3	**Limited progress**		
Effectively address features of the tax system that may facilitate aggressive tax planning by individuals and multinationals, including by ensuring sufficient taxation of outbound payments of interest, royalties and dividends, and amend the rules for non-domiciled companies.	Limited progress	Relevant RRP measures planned as of 2021 to 2024.	SDG 8, 16
2023 CSR 4	**Limited progress**		
Reduce reliance on fossil fuels	Limited progress	Relevant RRP measures being implemented/planned as of 2022 to 2026.	SDG 7, 9, 13
by accelerating the deployment of renewables energies, including offshore wind and solar energy,	Limited progress	Relevant RRP measures being implemented/planned as of 2023 to 2024.	SDG 7, 9, 13
and upgrade and expand the capacity of the electricity grid system, including transmission, distribution and battery storage.	Some progress	Relevant RRP measures being implemented/planned as of 2024 to 2026.	SDG 7, 9, 13
Reduce energy demand through improved energy efficiency, particularly in residential buildings.	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2026.	SDG 7
Reduce emissions from road transport by addressing traffic congestion through improved service quality in public transport, intelligent transport systems and investing in 'soft mobility' infrastructure.	Limited progress	Relevant RRP measures being implemented/planned as of 2021 to 2025.	SDG 11
Step up policy efforts aimed at the provision and acquisition of skills and competences needed for the green transition.	Some progress	Relevant RRP measures being implemented/planned as of 2022 to 2023.	SDG 4

Note:

* See footnote ([16]).

** 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 Malta'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 328 million in grants under the RRF over the 2021-2026 period, representing 1.7% of Malta's GDP ([17]). As of mid-May 2024, EUR 166.4 million has been disbursed to Malta under the RRF.

Malta still has EUR 161.9 million available in grants from the Recovery and Resilience Facility, which will be disbursed after the assessment of future fulfilment of the remaining 83 milestones and targets ([18]) included in the Council Implementing Decision ([19]) (CID), ahead of the 2026 deadline established for the RRF.

Malta's progress in implementing its plan is recorded in the Recovery and Resilience Scoreboard ([20]). 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 in the scoreboard.

Malta'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 14 million was disbursed as pre-financing on 13 December 2023. This helped launch relevant reforms like the reform of the permitting system for renewable energy projects.

The plan has a strong focus on the green transition, dedicating 68.8% of the available funds to measures that support climate objectives and 26.2% of its total allocation to support the digital transition. It also retains a strong social dimension with social protection measures, especially related to quality inclusive education.

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

Initial plan CID adoption date	13 July 2021
Scope	Revised plan with REPowerEU chapter
Last major revision	17 October 2023
Total allocation	EUR 328 billion in grants (1.7% of 2023 GDP)
Investments and reforms	16 investments and 31 reforms
Total number of milestones and targets	136
Fulfilled milestones and targets	53 (39% of total)

Source: RRF Scoreboard

With two payment requests completed, Malta's implementation of its RRP is well underway. The Commission gave a positive assessment of Malta's first payment request on 27 January 2023, taking into account the opinion of the Economic and Financial Committee. This led to EUR 52.3 million being disbursed in financial support on 8 March 2023 ([21]). The related 19 milestones and targets covered reforms and investments such as the adoption of a strategy to reduce waste through recycling in the construction sector, the establishment of office facilities to enable civil servants to work remotely across the country, reforms to boost industrial research and investments, a national anti-fraud and corruption strategy and reforms to digitalise the justice system.

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

([18]) 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.

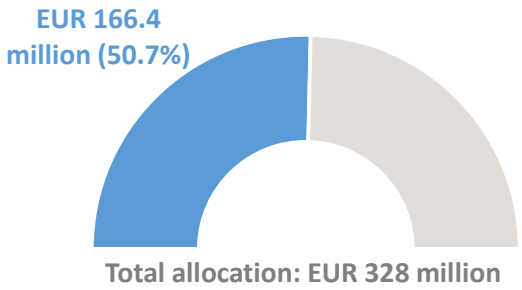
([19]) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:ST_11941_2021_ADD_1

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

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

The most recent payment request, which the Commission assessed positively on 26 March 2024, led to the disbursement of EUR 58.9 million on 16 May 2024. The disbursement reflected the positive assessment of 34 milestones and targets covering among others sustainable mobility, healthcare, training in information technology, life-long learning, inclusive education, capacity of judiciary, anti-money laundering, and corporate taxation as well as energy efficiency in private and public buildings electrification of transport, digitalisation of businesses and public administration.

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

Malta is working towards its third payment request. Table A3.2 highlights some relevant measures achieved so far, and some that will be implemented before 2026 to keep making Malta's economy greener, more digital, inclusive, and resilient.

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

Reforms and investments implemented
• Introduction of transfer pricing rules to reduce corporate profit shifting opportunities • Adoption of standards for the construction industry • Capacity building within the Attorney General's Office
Upcoming reforms and investments
• Strengthening and widening the electricity distribution network • Large-scale electrification of road transport • Support to low-income families to mitigate the digital divide

Source: FENIX

EU funding instruments provide considerable resources for recovery and growth to the EU Member States. In addition to the EUR 328.2 million of Recovery and Resilience Facility (RRF) funding described in Annex 3, EU cohesion policy funds ([22]) provide EUR 772.8 million to Malta in 2021-2027 ([23]). Support from these two instruments combined represent around 5.68% of the country's 2023 GDP, compared to the EU average of 5.38% of GDP ([24]). 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 Malta's competitiveness, with tangible achievements notably in research and innovation, water supply, energy efficiency and social inclusion. Over the whole period, which financed investments until December 2023, cohesion policy funds ([25]) made EUR 830.3 million available to Malta ([26]), of which EUR 477.1 million has been disbursed since March 2020 when the COVID-19 pandemic began ([27]). The achievements of cohesion policy funds over the programming period include support to improve the sustainability of water resources, to invest in water production infrastructure and to invest in the primary distribution network, which improved the water supply for the population of Malta, including over 39 000 people on the island of Gozo through the setting up of a Reverse Osmosis plant at Ħondoq. Cohesion policy also funded investments in energy efficiency in public buildings, yielding a decrease in annual primary energy consumption in selected public buildings of over 2 000 000 kWh/year.

On research and innovation, cohesion policy funds contributed to action to boost industry-academia collaborations, while facilitating a multidisciplinary approach to research and creating a culture for innovation. In particular, cohesion policy funded the creation of a transdisciplinary research and knowledge exchange complex at the University of Malta. The complex enabled 67.3 researchers, in full time equivalents, to work in improved research infrastructure facilities. Over the same period, nearly 11 000 people received support from active inclusion and anti-poverty measures, funded by the European Social Fund (ESF) in Malta. These measures supported the most vulnerable groups. Over 50% of recipients were low-qualified, 30% were under the age of 25 and 17% of recipients had a disability.

In the current programming period, cohesion policy will provide a further boost to Malta's competitiveness, to the green transition and to social cohesion, improving the living and working conditions of Malta's people. In 2021-2027, the European Regional Development Fund (ERDF) and the Cohesion Fund will contribute to improving Malta's energy mix and securing electricity supply. This will involve increasing green energy imports, supporting 118 km of electricity transmission and distribution network lines by developing the second electricity interconnector linking Italy and Malta and by investing in energy storage solutions to provide 160MWh of storage capacity for electricity. Malta also plans to foster sustainable multimodal urban mobility by developing 17.5 km of clean urban transport infrastructure, including pedestrian paths and cycle lanes.

The Just Transition Fund will focus on action to decarbonise the maritime sector by installing 37 alternative fuel points in the Grand Harbour and Malta Freeport. This will result in a substantial reduction in greenhouse gas emissions from the maritime sector. The European Social Fund Plus (ESF+) will fund action to improve education and training and to develop skills. It has a budget of around EUR 53.3 million in Malta for action including developing green and digital skills

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

([23]) European territorial cooperation (ETC) programmes are excluded from the figure. In 2021-2027, the total investment, including national financing, amounts to EUR 1.2 billion.

([24]) 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.

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

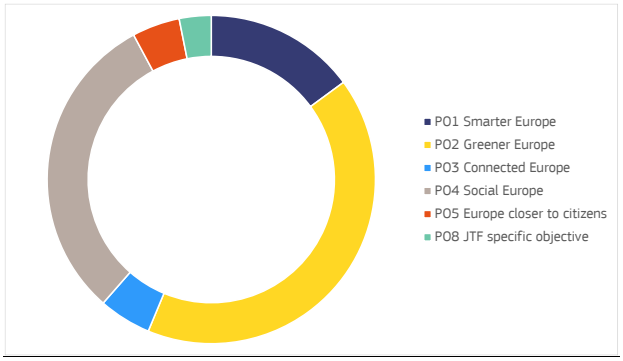
([26]) In 2014-2020, the total investment, including national financing, amounted to EUR 985.0 million.

([27]) Cut-off date: 15 May 2024.

and developing life-long learning, for over 53 000 participants and nearly 700 SMEs. With this work, cohesion policy substantially contributes to achieving the UN Sustainable Development Goals (SDGs) in Malta, in particular SDG 7 (Affordable and clean energy), SDG 8 (Decent work and economic growth) and SDG 9 (Industry, innovation, infrastructure).

Through combined action, cohesion policy and the recovery and resilience plan (RRP) have a mutually reinforcing impact in Malta. For instance, on energy efficiency, the ERDF will provide financial support to marketable projects for SMEs and households, supporting projects that meet energy efficiency criteria. To complement this support, the RRP will provide grants to improve energy efficiency for SMEs, reduce energy demand, lower carbon emissions and limit energy waste by retrofitting public and private buildings. Together, cohesion policy and the RRP also support the electricity distribution grid, distribution services and battery storage. The RRP investment will help design and build a pilot battery storage facility of at least 10MWh by 2026. On this basis, the ERDF battery storage investment will roll out and upscale battery storage of up to 160MWh by 2030. Battery storage facilities are preconditions for developing offshore wind and solar projects, to enable Malta to increase the currently low share of renewables in its energy mix. In this regard, the RRP reform of permitting systems to streamline processes and accelerate permit-granting procedures for renewable energy projects will aim to facilitate the uptake of renewable technologies. The ERDF will support pilot projects to explore blue renewable energies opportunities.

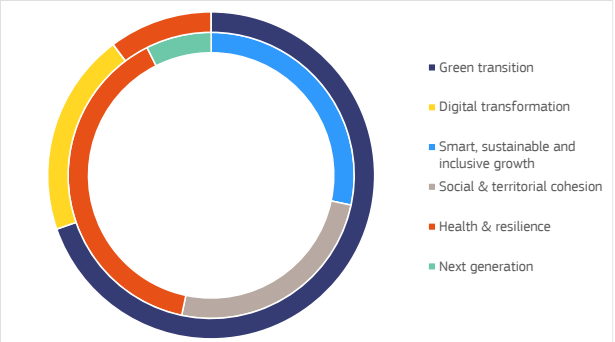
Graph A4.1: **Distribution of cohesion policy funding across policy objectives in Malta**



Source: European Commission

There are also complementarities between the RRF and the ESF+. For instance, both instruments tackle workforce challenges in the health sector. The ESF+ contributes to measures to upgrade the skills of healthcare professionals and the RRP supports actions to develop a bespoke tool for workforce planning and a reform to implement measures to improve the wellbeing and integration of foreign health workers. The contribution of cohesion policy and RRF funding by policy objective is illustrated by Graphs A4.1 and A4.2.

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



(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 Malta.

Source: European Commission

The Technical Support Instrument (TSI) helps Malta invest in its public administration and create a better enabling environment for EU and national investment. The TSI has funded projects in Malta to design and implement growth-enhancing reforms since 2017. The support provided in 2023 included help (i) to implement the business reorganisation action plan of the office of the attorney general and the office of the state advocate; (ii) to improve tax compliance by implementing real-time reporting; and (iii) to improve the quality of tax information exchanged between Member States under the Directive on administrative cooperation.

The TSI also helps Malta implement specific reforms and investments included in its RRP, for example on clean, smart and fair urban transport; on the renovation wave and on coastal protection to help adapt to climate change.

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

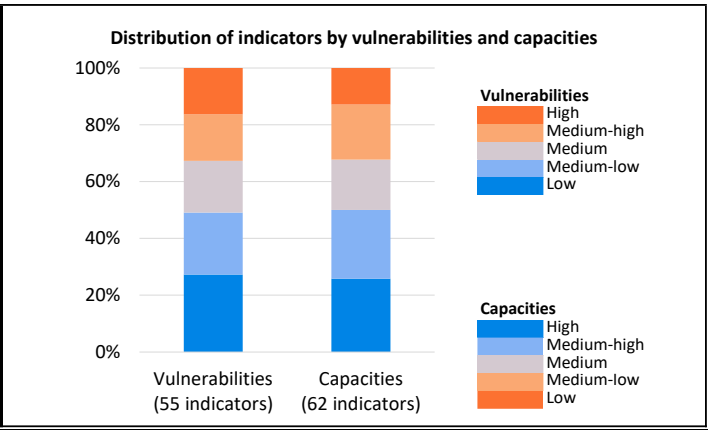
Table A4.1: **Support from EU instruments in Malta**

EU grants			
	Amount 2014-2020 (EUR million)		Amount 2021-2027 (EUR million)
Cohesion policy	830.3		772.8
RRF grants (1)	-		328.2
Public sector loan facility (grant component) (2)	-		1.8
Common agricultural policy (3)	200.0		122.0
EMFF/EMFAF (4)			
Connecting Europe Facility (5)	72.7		23.4
Horizon 2020 / Horizon Europe (6)	37.5		39.4
LIFE programme (7)	12.9		1.3
EU guarantees			
	EU Guarantee (EUR million)		Volume of operations (EUR million)
European Fund for Strategic Investment 2015-2020 (8)	16.8		40.1
InvestEU 2021-2027 (9)	0.0		0.0
EU loans			
	Period	Total amount available (EUR million)	Disbursed amount (EUR million)
SURE (10)	2020-2022	420.8	420.8

(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).
(10) SURE - European instrument for temporary support to mitigate unemployment risks in an emergency.
Source: European Commission

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

Dimension		MT 2023 RDB	MT 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) ([28]) to show Malta's relative resilience capacities and vulnerabilities ([29]) that may be of relevance for societal, economic, digital and green transformations, and for dealing with future shocks and geopolitical challenges. ([30])

According to the RDB's set of resilience indicators, Malta's overall vulnerabilities have remained stable medium-low level, while the country has strengthened its overall resilience capacities, now matching the medium-high EU average. Over 50% of Malta's vulnerability indicators are low and medium-low, putting it in a relatively good position. Around 50% of its capacity indicators are high and medium-high, with the proportion of low and medium-low resilience capacities remaining relatively high, at more than 30% of all indicators.

In the social and economic dimension, Malta has remained stable in terms of its medium-low vulnerabilities and its medium capacities. It would do well to further reduce its already low proportion of young people neither in employment nor in education and training (NEETs). The main reasons for its low capacities are health and social protection and its low Programme for International Student Assessment (PISA) scores. At the same time, Malta's population enjoys one of the highest numbers of healthy life years at birth in the EU, and a high employment rate.

In the green dimension, Malta's capacities have remained medium-low, as in 2023, below the EU average but improved its vulnerabilities to reach the EU average. The country, due to its dry semi-arid climatic conditions, has one of highest WEI+ rating in the EU and could further decrease its consumption footprint per capita and increase its e-waste recycling rate. On a positive note, its resource productivity has increased.

In the digital dimension, Malta's vulnerabilities and capacities remained stable. Malta is one of the EU countries with the most advanced digital competences of young people, and one of the EU's top performers in terms of the preparedness for the digital transition of its information and communication technology (ICT) sector, which has the highest gross value added in the EU, considerable research and

([28]) 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).

([29]) 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.

([30]) 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.

development activity, and many businesses seeking ICT specialists.

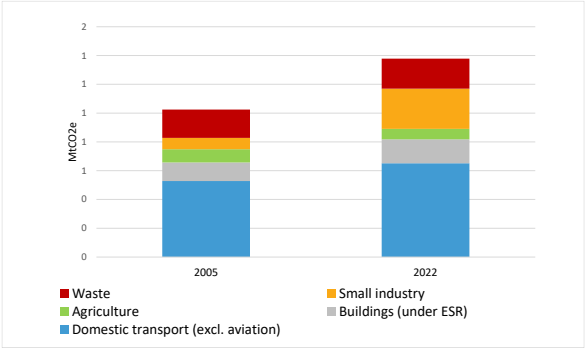
Malta's geopolitical vulnerabilities have increased to medium-high, but its capacities remain above the EU average. The reasons for this are Malta's high import dependence in energy materials, and a high concentration of energy suppliers and value chain partners. Its geopolitical capacities are above the EU average thanks mainly to its trade openness both towards the EU and other countries, and the attractiveness of its labour market, which has the highest proportion of non-EU citizens in total employment and a high and positive net migration rate.

Malta has made progress in the green transition, with more action needed on advancing the policies to attain its 2030 effort sharing target, addressing emissions from road transport and buildings, climate adaptation – notably sustainable water management and the institutional framework, the circular economy and other areas; as well as specifying the funding framework. This Annex provides a snapshot of climate, energy, and environmental aspects of the transition in Malta ([31]).

Malta's draft updated national energy and climate plan (NECP) is lacking key information on the investment and funding sources needed to achieve its 2030 climate and energy targets. The draft plan lacks information on the investment needed to implement policies and measures. It includes only an estimate of the investment needed for 2020–2050, based on Malta's long-term strategy, with but little detail provided. The plan does not outline the main sources of financing for most planned policies and measures. Where it does mention sources, it does not specify the share of each source of funding (national, EU, and private) ([32]).

The policies and measures currently in place are not sufficient to reach Malta's 2030 effort sharing target ([33]), and the country has not specified further planned action in its draft updated NECP. In 2022, Malta's greenhouse gas emissions from its effort sharing sectors are expected to be 35.1% above 2005 levels. Based on current projections, existing policies are projected to contain the rise of these emissions at 46.3% above 2005 levels by 2030. In its draft updated NECP, Malta has not provided a projection of 2030 effort sharing emissions with additional policies. Based on current projections, with existing policies, Malta's effort sharing emissions will exceed its 2030 target by over 65 percentage points, highlighting the need for more ambitious climate action ([34]). According to the draft updated NECP, Malta is planning to move towards climate neutrality by 2050, but it does not specify a concrete date when this will actually be achieved.

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



Source: European Environment Agency

Greenhouse gas emissions from road transport and buildings are a significant concern for Malta. In 2022, greenhouse gas emissions from road transport increased by 23.3% from 2005 levels, and their share in effort sharing emissions remained stable at 47.2% in 2022, slightly down from 51.5% in 2005. Between 2005 and 2022, Malta's effort sharing emissions from buildings increased by 28.8%. Designing policies and measures to curb greenhouse gas emissions in these sectors is key if Malta is to reduce the gap with its 2030 effort sharing target. Malta should also aim to reduce F-gases from air conditioning by promoting the adoption of eco-friendly alternatives and ensuring proper servicing and disposal practices. Ahead of the emissions trading system for road transport and buildings, due to be

([31]) 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.

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

([33]) The national greenhouse gas emission reduction target is laid down in Regulation (EU) 2023/857 (the Effort Sharing Regulation). The aims 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).

([34]) The effort sharing emissions for 2022 are based on approximated inventory data. The final data will be established in 2027 after a comprehensive review. Malta's draft updated NECP does not provide emission projections for the effort sharing sectors. The information on projections of effort sharing emissions 'with existing measures' (WEM) and 'with additional measures' (WAM) is based on the latest data that had to be reported by 15 March 2023 under Article 18 of Regulation 2018/1999 (the Governance Regulation).

rolled out in 2027, measures targeting vulnerable consumers appear pertinent.

Malta's target for renewable energy and energy efficiency in its draft updated NECP remain low ([35]). Malta's draft updated NECP did not set a target for renewable energy contribution by 2030. With a 2022 share of 13.4%, there is a large ambition gap towards its indicative contribution of 28% in 2030. Its energy efficiency contributions of 0.96 Mtoe in primary energy consumption and 0.80 Mtoe in final energy consumption for 2030 set in its draft updated NECP are both less ambitious than those required under the Energy Efficiency Directive.

Actions in Malta to curb rising greenhouse gas emissions from road transport have not been sufficient ([36]). Malta's take-up of battery electric vehicles is slow. In 2022, electric vehicles represented only 0.8% of its passenger car fleet. In 2023, the country provided one publicly accessible charging point for every 33 e-vehicles, far below the EU average of 1:10. Passenger cars account for 86% of distances travelled, with buses and coaches accounting for the rest. All domestic freight is transported by road. Malta faces significant traffic congestion ([37]).

Malta's land use, land use change, and forestry (LULUCF) sector successfully achieves net carbon removals. To reach the 2030 LULUCF target, additional carbon removals of 2 kt CO2eq are needed ([38]). According to latest projections, Malta is on track to meet this target.

On climate adaptation, weaknesses in Malta's institutional framework are a key challenge. Malta remains vulnerable to flash urban floods, water scarcity and heatwaves, with a low but improvable climate protection gap ([39]). Malta's 2015 climate action act introduces an obligation to adopt and regularly update a national adaptation strategy. Malta has identified several critical sectors that require adaptation. These include water management, infrastructures and transport, land use and buildings, agriculture, and fisheries. Despite recent progress, significant work remains to be done to bring Malta's adaptation frameworks, policies, planning and implementation up to the required level of maturity ([40]). Malta is currently drawing up a vulnerability risk assessment, to lay the ground for integrating climate resilience into sectoral policies.

Sustainable water management is a concern for Malta given its high level of water scarcity due to the prevailing semi-arid climatic conditions and high demand for water from the urban (high population density) and agricultural sectors. Excessive abstraction of groundwater from the mean-sea level aquifer system is causing groundwater salinization. The annual investment gap to achieve sustainable water management is expected to reach EUR 33 million over 2021-2027. The water exploitation index plus (WEI+) stood at 29.6% in 2019 with the worst seasonal value at 74.9% in Q1-2019. All of Malta's territory faced water scarcity conditions over 2000-2020. Croplands are generally the most damaged ecosystem. According to the second river basin management plan, only 37% of Malta's surface water bodies are in a good ecological status and 53% are in a good chemical status. Not all marine waters are in a good environmental status. Good status was not achieved for non-indigenous species and fish and commercial species, as tracked by the descriptors used in the Marine Strategy Framework Directive (MSFD).

Air quality in Malta is generally good, with exceptions. The latest available annual estimates (2021) by the European Environmental Agency point to Malta suffering about 426 years of life lost for every 100,000 inhabitants due to exposure to particulate matter (PM2.5) and 21 due to NO2. Furthermore, the indicator for smog-precursor emission intensity to GDP decreased by 83%

([35]) 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 Malta at 829 ktoe for primary energy consumption and 687 ktoe for final energy consumption. See the Commission Recommendation of 18.12.2023 to Malta.

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

([37]) In 2020, road vehicle drivers experienced peak-hour delays of 82 hours on average (EU average: 29 hours).

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

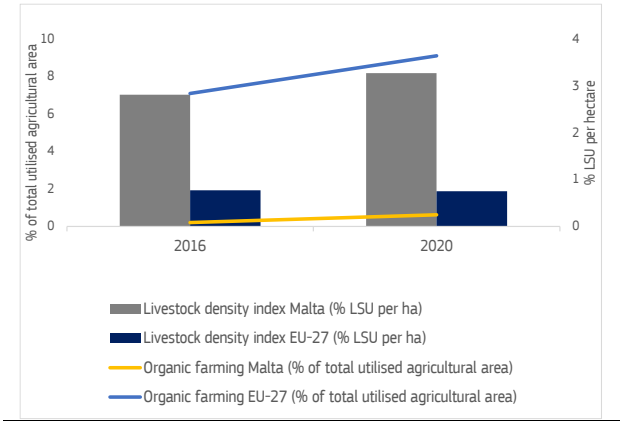
([39]) On the climate protection gap, see the annotations to Table A6.1.

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

between 2008 and 2021, reaching 0.42 tonne/EUR'10. All three metrics are below the EU average.

Malta continues to face challenges in the areas of biodiversity and nature protection and restoration. At the end of 2021, 29% of Malta's land area and 5.5% of its marine area was under protection. According to the report on the conservation status of protected habitats and species covered by Article 17 of the Habitats Directive, in 2013-2018, 28% of habitats and 53% of species were in a good conservation status. Managing the Natura 2000 network effectively can help to prevent or mitigate the effects of climate change. This will require sustainable agriculture, forestry, and fisheries practices. Introducing stronger measures would help ensure that the activities of these sectors are compatible with the conservation of protected species. Investing in green technologies, reducing environmental harmful subsidies, shifting taxation to the environment, and increasing taxes on pesticides and fertilisers, could be part of the solution.

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



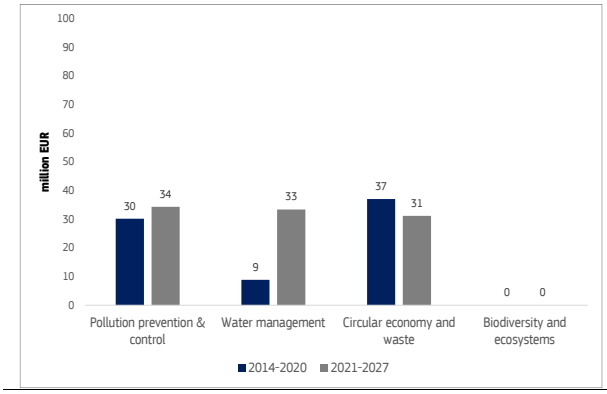
Livestock unit (LSU)/ha of UAA: it measures the stock of animals (cattle, sheep, goats, equidae, pigs, poultry and rabbits) converted in LSUs per hectare of UAA.
Source: Eurostat

Malta would benefit from accelerating the transition to sustainable agriculture. The annual output of Malta's agricultural sector decreased between 2015 and 2023, reaching EUR 114 million. The share of organic agriculture is still low and traditional practices do not always guarantee high ambition in terms of nature protection. Urgent measures could help to reduce the current water use rate, while also accelerating the transition to sustainable agri-food and protecting biodiversity and ecosystems. Specifically, replacing water-intensive crops with less water-intensive ones could alleviate the pressure on water bodies. The New Water Programme is set to provide reclaimed water for agricultural irrigation. The country is vulnerable to climate change-related events such as wildfires and drought. Improving soil health through sustainable agricultural practices can help increase soil moisture and reduce the effects of droughts. Between 2010 and 2020, the livestock density decreased in most of the Member States. Malta's livestock density index decreased from 3.52% to 3.27%, remaining the second highest in the EU.

Food waste production remains relatively high while composting and digestion levels could be improved. The country produced 154 kg of food waste per capita in 2020, above the EU average of 131 kg per capita. Most of it was generated during household activities and in restaurants and food services. Composting and digesting levels are insufficient to treat such a large volume of food waste.

Malta would benefit from investing more in pollution prevention and control and water management. Over the 2014-2020 period, the environmental investment gap was estimated at EUR 76.1 million per year, or 0.4% of GDP. The gap is estimated to be increasing over the 2021-2027 period at EUR 98.9 million per year. There remains an opportunity to increase funding for pollution prevention and control (a gap of EUR 34 million), and sustainable water management (EUR 33 million).

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



The numbers are computed by the EC 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	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	1,020.6	28%	17%	33.5%	35.1%	-19%	-65	-65
Net greenhouse gas removals from LULUCF [2]	Kt CO2eq	0	6	9	1	1	2	n/a	n/a
Share of energy from renewable sources (1) [3]	%	0%	8%	11%	13%	13%	28%	-	-
Energy efficiency: primary energy consumption [3]	Mtoe	0.9	0.9	0.7	0.8	0.9	0.8		
Energy efficiency: final energy consumption [3]	Mtoe	0.5	0.7	0.5	0.6	0.7	0.7		

							EU-27		Projected
		2018	2019	2020	2021	2022	2021	2022	2030
Green transition: mobility									
Greenhouse gas emissions: road transport	Mt CO2e	-	-	-	0.6	0.7	769.0	786.6	0.6
Share of zero-emission vehicles in new registrations [4]	%	2.2	3.7	1.2	1.5	1.9	9	12.1	n/a
Number of publicly accessible AC/DC charging points		-	-	98	96	95	299178	446956	n/a
Share of electrified railways	%	-	-	-	-	-	56.1%	-	n/a
Green transition: buildings									
Greenhouse gas emissions: buildings	Mt CO2e	-	-	-	0.2	0.2	537.0	486.7	0.2
Final energy consumption in buildings	2015=100	105.9%	111.6%	105.7%	110.4%	120.6%	104.0%	97.2%	
Climate adaptation									
Climate protection gap [5]	score 1-4	-	-	2.3	1.4	1.4	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	26.1	29.6	-	-	-	3.6	-	-
Circular economy | Material footprint [7]	tonnes per person	9.5	12.3	13.5	13.0	10.7	14.2	14.8	14.9
Pollution | Years of life lost due to air pollution by PM2.5 [8]	per 100.000 inhabitants	466	499	335	426	-	545	584	-
Biodiversity | Habitats in good conservation status [9]	%	27.6					14.7		
Common farmland bird index [10]	2000=100	-	-	-	-	-	78	-	-
Green transition: agri-food sector									
Organic farming	% of total utilised agricultural area	0.41	0.47	0.62	0.61	-	9.1	-	-
Nitrates in groundwater	mg NO_3/litre	-	-	-	-	-	20.42	-	-
Food waste per capita	Kg per capita			154	-	-	130	131	-
Share of soil in poor health [11]	%					-			41
Soil organic matter in agricultural land [12]	Mt per ha	-	-	-	-	-	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.

This Annex ([41]) sets out Malta's progress and challenges in accelerating the net-zero energy transition while bolstering the EU's competitiveness in the clean energy sector ([42]). It considers measures and targets put forward in the draft updated National Energy and Climate Plans (NECP) for 2030 ([43]).

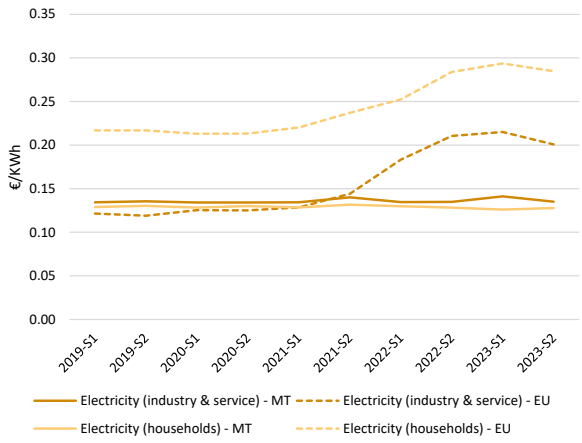
Unlike the prevailing trends witnessed across the EU, retail energy prices in Malta continued to remain stable during 2023. Throughout 2023 Malta has maintained its energy and fuel price stability policy, which had been introduced in 2020 to protect households and businesses, resulting in significantly lower prices than the EU average.

Regulated below-cost retail electricity tariffs for households and small businesses were maintained during 2023 and continued to shield consumers from energy price shocks. However, such universal below-cost tariffs distort incentives to reduce energy demand and invest in energy efficiency measures, and they impact heavily on public finance.

Malta is a geographically isolated island with high import dependency due to the lack of domestic conventional energy sources and relatively limited onshore renewable energy resource potential. Natural gas in Malta is used solely for the generation of electricity and currently constitutes the largest share of Malta's electricity generation mix at approximately 70%. ([44]) Malta is not connected to the trans-European gas network and is not dependent on gas imports from Russia. Malta does not operate any underground gas storage facility and is exempted from the regulation on gas storage. Malta managed to reduce its gas demand between August 2022 and December 2023 by 10% in comparison with the average of the previous five years.

To further strengthen the security of electricity supply in the country, a decision was taken to invest, with the support of Cohesion funds, in a second 200 MW electricity sub-sea link with Italy (Sicily) by 2026. This second cable link with Italy would contribute to long-term security of supply as well as allow for the integration of a higher share of renewable energy sources.

Graph A7.1: **Malta'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

Energy prices have not affected international competitiveness. Also thanks to subsidies, electricity prices for non-household consumers have remained below the levels in the US, Japan, and the UK. This suggests that international competitiveness of energy-intensive industries in Malta should not be adversely affected.

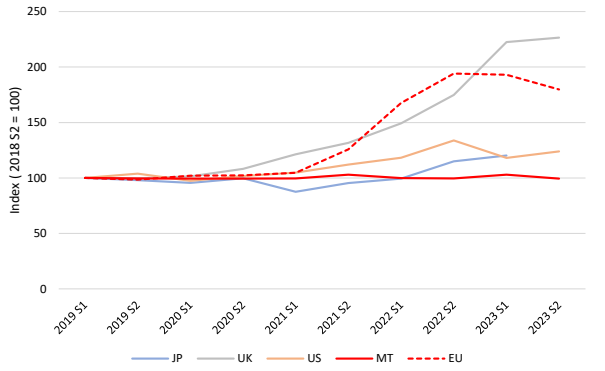
([41]) It is complemented by Annex 6 as the European Green Deal focuses on the clean energy transition and by Annex 8 on the action taken to protect the most vulnerable groups, complementing ongoing efforts under the European Green Deal, REPowerEU and European Green Deal Industrial Plan.

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

([43]) Malta submitted its draft updated NECP in October 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 Malta - European Commission (europa.eu)

([44]) Eurostat.

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

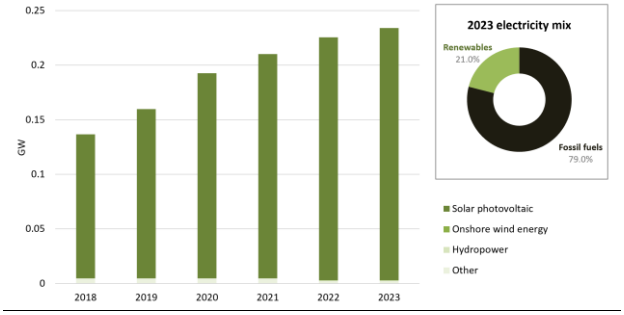


(1) For Eurostat data (EU and MT), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness
(2) JP = Japan
Source: Eurostat,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

Installed solar energy capacity from photovoltaics increased by 4% in 2023. Total renewable energy capacity in Malta in 2023 stood at 234 MW, while the wind capacity in Malta is zero MW. ([45]) As regards the acceleration of solar deployment, the largest contributor to renewable electricity, no new policies with a legal basis were identified besides the ongoing PV grant schemes and feed-in tariff schemes, but a reform was committed to under REPowerEU to speed up the permitting process and require the installation of PVs on certain rooftops. Malta is in the process of finalising an offshore renewable energy policy which will provide a framework for deploying renewables in its exclusive economic zone, yet no concrete measures have so far been identified. In September 2023, Malta conducted a public consultation on a National Policy for the Deployment of Offshore Renewable Energy, with the aim of establishing possible suitable marine areas for the development of floating offshore energy. The only available indicative offshore renewable energy targets for Malta (0.05 GW for 2030 and 0.4 GW for 2040 and 2050), are those included in the non-binding agreement defined by the non-binding goals in the 2023 EU Sea Basins agreements.

Malta's relatively high share of renewables in heating and cooling (38% in 2022) is in large part attributable to renewable cooling, with heat pumps contributing 14 percentage points (pps) to this share. Malta states in its NECP that government subsidies for heating and cooling through heat pumps are not to be expected, due to this technology being the predominant form of spatial cooling. Heat pumps, however, may only account towards a Member State's heating and cooling target up to a certain maximum. Relying solely on heat pumps, therefore, will not be enough to reach their sector-specific heating and cooling target.

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



(1) "Other" includes biogas
Source: IRENA, Ember

In 2021 the overall electricity generated from biogas from waste in Malta was 7.23 GWh, amounting to nearly 0.27% of the overall electricity generated. According to the draft NECP, these figures will increase after the commissioning of the Cohesion Fund's investment in a new organic processing plant, expected to be completed by 2027. The plant will treat a maximum 74 000 tonnes per annum of organic waste from households and companies, converting them into compost and biogas. At an estimated 120 normal cubic metres per tonne of waste input, this will generate 20.98 GWh/y in electricity and 19.75 GWh/y in heat, when working at full capacity.

Consumer empowerment in the electricity market has not progressed, due to the specific features of the market. The electricity supply market in Malta remains closed, with Enemalta being the exclusive electricity supplier on the island. As regards consumer empowerment rules and tools, 92% of final household consumers had smart meters 2022 (EU average 80%), but the lack of a liquid wholesale market prevented the liberalisation of the electricity market, as well as the development of a demand-side response or further aggregation

([45]) IRENA Report 2024

measures. Nevertheless, time-of-use tariffs are available for EV charging and large non-residential consumers.

Energy efficiency gains slowed down in Malta, although there is still untapped potential on energy efficiency. In 2022, Malta had a primary energy consumption of 0.9 Mtoe, a 15.5% increase over 2021, and an 8.7% decrease over 2012. It had a final energy consumption of 0.7 Mtoe, a 19.3% increase over 2021 and a 37.8% increase over 2012. The increase can partially be explained from recovery from Covid-19. In 2022, the largest increase came from the transport sector, which increased its final energy consumption by 29.3%.

Malta has implemented a series of energy efficiency measures with support from EU funds. However, most of the schemes are addressed at buildings and leverage from other funding sources is rather limited. Although Malta did not add energy efficiency investment in its REPowerEU Chapter, it has invested EUR 52.2 million in energy efficiency in its Recovery and Resilience Plan (RRP), and the plan remains one of the greenest among Member States. Under cohesion policy, EUR 6 million are allocated to support, through financial instruments, energy efficiency investments in companies and buildings, with a specific focus on the worst performing buildings. Most of the schemes on energy efficiency are still grant-based and the use of financial instruments is still very limited. In terms of existing funding schemes addressing mobilisation of investments in energy efficiency, Malta mainly relies on grant-based funding schemes.

Malta plans a hydrogen-ready gas interconnector with Italy, ready to transmit 100% hydrogen from its commissioning date, which benefits from an exemption under Article 24 of the TEN-E Regulation and will continue to be a project of common interest in the first Union list under the revised Regulation.

Malta does not have a manufacturing capacity for clean technologies and remains dependent on imports for renewable energy deployment. However, Malta's National Strategy for R&I in Energy and Water 2021–2030, as well as its first NECP, endeavour to support R&I initiatives related to renewable solutions for islands, integration of renewable electricity, and energy efficient solutions.

Malta maintains low investment levels in research and innovation (R&I) to support Energy Union priorities. Malta is a moderate innovator, according to the 2023 European Innovation Scoreboard ([46]), with an overall performance index at 85.8% of the EU average. The main relative weaknesses affecting the overall performance refer to the low expenditure in R&I, both in terms of public and private funding. This general picture also applies to the R&I supporting the EU energy union priorities. Thus, public R&I investment ([47]) remains low (0.8 M EUR in 2020 and 0.9 M EUR in 2021), despite a relative increase compared to previous years (an average of 0.4 M EUR between 2017 and 2019 inclusive). The current level represents only a 0.006% share of the country's GDP. The support mostly addresses renewables and energy efficiency. At the same time, private R&I investment was around EUR 11 million in 2020 (i.e. roughly one order of magnitude higher). The topics supported covered energy efficiency in industry, smart solutions for consumers, smart and integrated energy systems and e-mobility and batteries. The number of patent families filed in 2019 for clean technologies was two, representing around 3.4 patent families per million inhabitants, which is six times less than the EU average.

([46]) European Innovation scoreboard

([47]) Source: JRC SETIS (2023)

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

		Malta				EU			
		2019	2020	2021	2022	2019	2020	2021	2022
ENERGY DEPENDNCE	**Import Dependency [%]**	**97.3%**	**97.6%**	**97.1%**	**99.0%**	**60.5%**	**57.5%**	**55.5%**	**62.5%**
	of Solid fossil fuels	0.0%	0.0%	0.0%	0.0%	43.3%	35.8%	37.3%	45.8%
	of Oil and petroleum products	97.8%	99.3%	97.9%	100.7%	96.7%	96.8%	91.7%	97.7%
	of Natural Gas	103.6%	96.2%	103.5%	100.2%	89.7%	83.6%	83.6%	97.6%
	Dependency from Russian Fossil Fuels [%]								
	of Natural Gas	0.0%	0.0%	0.0%	0.0%	39.7%	41.3%	41.1%	21.0%
	of Crude Oil	0.0%	0.0%	0.0%	0.0%	28.8%	26.7%	26.4%	19.5%
	of Hard Coal	0.0%	0.0%	0.0%	0.0%	43.5%	49.1%	47.4%	21.5%

		2016	2017	2018	2019	2020	2021	2022
DIVERSIFICATION OF GAS SUPPLIES	**Gas Consumption (in bcm)**	**-**	**0.3**	**0.3**	**0.4**	**0.4**	**0.4**	**0.4**
	Gas Consumption year-on-year change [%]	-	-	20.5%	6.1%	3.5%	-0.2%	1.6%
	Gas Imports - by type (in bcm)	**-**	**0.3**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**
	Gas imports - pipeline	-	-	-	-	-	-	-
	Gas imports - LNG	0.0	0.3	0.4	0.4	0.4	0.4	0.4
	Gas Imports - by main source supplier (in bcm) (1)							
	Trinidad and Tobago	-	0.2	0.1	0.3	0.3	0.3	0.3
	United States	-	0.0	0.1	0.0	0.1	0.1	0.1

		2019	2020	2021	2022	2023
	LNG Terminals - storage capacity m3 LNG					
	Number of LNG Terminals	1	1	1	1	1
	LNG Storage capacity (m3 LNG)	125,000	125,000	125,000	125,000	125,000
	Underground Storage					
	Number of storage facilities	0	0	0	0	0
	Technical Capacity (bcm)	0.0	0.0	0.0	0.0	0.0

		2016	2017	2018	2019	2020	2021	2022	2023
ELECTRICITY/ENERGY	**Gross Electricity Production (GWh) (2)**	**857**	**1,652**	**1,962**	**2,060**	**2,143**	**2,215**	**2,293**	-
	Combustible Fuels	729	1,489	1,772	1,864	1,906	1,959	2,004	-
	Nuclear	0	0	0	0	0	0	0	-
	Hydro	0	0	0	0	0	0	0	-
	Wind	0	0	0	0	0	0	0	-
	Solar	128	162	190	195	237	256	290	-
	Geothermal	0	0	0	0	0	0	0	-
	Other Sources	-0	-0	0	0	-0	-0	-0	-
	Gross Electricity Production [%]								
	Combustible Fuels	85.1%	90.2%	90.3%	90.5%	88.9%	88.4%	87.4%	-
	Nuclear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Hydro	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Wind	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Solar	14.9%	9.8%	9.7%	9.5%	11.1%	11.5%	12.6%	-
	Geothermal	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Other Sources	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Net Imports of Electricity (GWh)	**1,527**	**861**	**621**	**636**	**416**	**511**	**639**	-
	As a % of electricity available for final consumption	72.1%	37.1%	26.0%	25.7%	17.5%	20.4%	23.7%	-
	Electricity Interconnection [%]	-	**24.2%**	**29.4%**	**29.0%**	**31.0%**	**44.5%**	**42.3%**	**40.9%**
	Share of renewable energy consumption - by sector [%]								
	Electricity	5.7%	6.8%	7.7%	7.5%	9.5%	9.6%	10.1%	-
	Heating/cooling	16.9%	19.3%	22.8%	23.6%	23.0%	32.8%	38.0%	-
	Transport	5.3%	6.8%	8.0%	8.9%	10.6%	10.5%	10.5%	-
	Overall	6.2%	7.2%	7.9%	8.2%	10.7%	12.7%	13.4%	-

		2019	2020	2021	2022	2023
CLEAN ENERGY	**VC investments in climate tech start-ups and scale-ups (EUR Mln)**	-	-	-	-	-
	as a % of total VC investment (3) in Malta start-ups and scale-ups	-	-	-	-	-
	Research & Innovation spending in Energy Union R&i priorites					
	Public R&I (EUR mln)	0.3	0.8	0.9	-	-
	Public R&I (% GDP)	0.002%	0.006%	0.006%	-	-
	Private R&I (EUR mln)	3.4	10.7	-	-	-
	Private R&I (% GDP)	0.024%	0.081%	-	-	-

(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)

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

		Malta				EU			
		2019	2020	2021	2022	2019	2020	2021	2022
ENERGY DEPENDNCE	**Import Dependency [%]**	**97.3%**	**97.6%**	**97.1%**	**99.0%**	**60.5%**	**57.5%**	**55.5%**	**62.5%**
	of Solid fossil fuels	0.0%	0.0%	0.0%	0.0%	43.3%	35.8%	37.3%	45.8%
	of Oil and petroleum products	97.8%	99.3%	97.9%	100.7%	96.7%	96.8%	91.7%	97.7%
	of Natural Gas	103.6%	96.2%	103.5%	100.2%	89.7%	83.6%	83.6%	97.6%
	Dependency from Russian Fossil Fuels [%]								
	of Natural Gas	0.0%	0.0%	0.0%	0.0%	39.7%	41.3%	41.1%	21.0%
	of Crude Oil	0.0%	0.0%	0.0%	0.0%	28.8%	26.7%	26.4%	19.5%
	of Hard Coal	0.0%	0.0%	0.0%	0.0%	43.5%	49.1%	47.4%	21.5%

		2016	2017	2018	2019	2020	2021	2022
DIVERSIFICATION OF GAS SUPPLIES	**Gas Consumption (in bcm)**	**-**	**0.3**	**0.3**	**0.4**	**0.4**	**0.4**	**0.4**
	Gas Consumption year-on-year change [%]	-	-	20.5%	6.1%	3.5%	-0.2%	1.6%
	Gas Imports - by type (in bcm)	**-**	**0.3**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**
	Gas imports - pipeline	-	-	-	-	-	-	-
	Gas imports - LNG	0.0	0.3	0.4	0.4	0.4	0.4	0.4
	Gas Imports - by main source supplier (in bcm) (1)							
	Trinidad and Tobago	-	0.2	0.1	0.3	0.3	0.3	0.3
	United States	-	0.0	0.1	0.0	0.1	0.1	0.1

		2019	2020	2021	2022	2023
	LNG Terminals - storage capacity m3 LNG					
	Number of LNG Terminals	1	1	1	1	1
	LNG Storage capacity (m3 LNG)	125,000	125,000	125,000	125,000	125,000
	Underground Storage					
	Number of storage facilities	0	0	0	0	0
	Technical Capacity (bcm)	0.0	0.0	0.0	0.0	0.0

		2016	2017	2018	2019	2020	2021	2022	2023
ELECTRICITY/ENERGY	**Gross Electricity Production (GWh) (2)**	**857**	**1,652**	**1,962**	**2,060**	**2,143**	**2,215**	**2,293**	-
	Combustible Fuels	729	1,489	1,772	1,864	1,906	1,959	2,004	-
	Nuclear	0	0	0	0	0	0	0	-
	Hydro	0	0	0	0	0	0	0	-
	Wind	0	0	0	0	0	0	0	-
	Solar	128	162	190	195	237	256	290	-
	Geothermal	0	0	0	0	0	0	0	-
	Other Sources	-0	-0	0	0	-0	-0	-0	-
	Gross Electricity Production [%]								
	Combustible Fuels	85.1%	90.2%	90.3%	90.5%	88.9%	88.4%	87.4%	-
	Nuclear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Hydro	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Wind	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Solar	14.9%	9.8%	9.7%	9.5%	11.1%	11.5%	12.6%	-
	Geothermal	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Other Sources	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Net Imports of Electricity (GWh)	**1,527**	**861**	**621**	**636**	**416**	**511**	**639**	-
	As a % of electricity available for final consumption	72.1%	37.1%	26.0%	25.7%	17.5%	20.4%	23.7%	-
	Electricity Interconnection [%]	-	**24.2%**	**29.4%**	**29.0%**	**31.0%**	**44.5%**	**42.3%**	**40.9%**
	Share of renewable energy consumption - by sector [%]								
	Electricity	5.7%	6.8%	7.7%	7.5%	9.5%	9.6%	10.1%	-
	Heating/cooling	16.9%	19.3%	22.8%	23.6%	23.0%	32.8%	38.0%	-
	Transport	5.3%	6.8%	8.0%	8.9%	10.6%	10.5%	10.5%	-
	Overall	6.2%	7.2%	7.9%	8.2%	10.7%	12.7%	13.4%	-

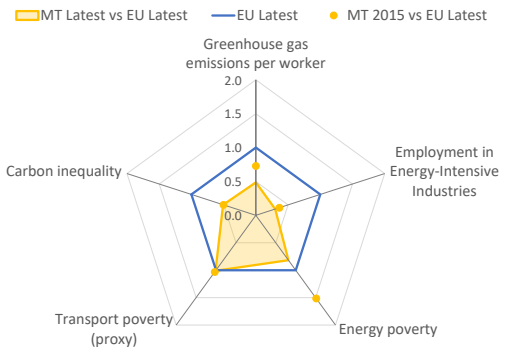
		2019	2020	2021	2022	2023
CLEAN ENERGY	**VC investments in climate tech start-ups and scale-ups (EUR Mln)**	-	-	-	-	-
	as a % of total VC investment (3) in Malta start-ups and scale-ups	-	-	-	-	-
	Research & Innovation spending in Energy Union R&i priorites					
	Public R&I (EUR mln)	0.3	0.8	0.9	-	-
	Public R&I (% GDP)	0.002%	0.006%	0.006%	-	-
	Private R&I (EUR mln)	3.4	10.7	-	-	-
	Private R&I (% GDP)	0.024%	0.081%	-	-	-

(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 Malta's progress in ensuring a fair transition towards climate neutrality and environmental sustainability, particularly for workers and households in vulnerable situations. Malta's green economy is expanding. Between 2015 and 2021, total jobs in the environmental goods and services sector grew by 19.1% (to around 4 000) (EU: 18.2%), reaching 1.5% of total employment (EU: 2.7%). Also, between 2015 and 2022, the greenhouse gas emission intensity of Malta's workforce (see Graph A8.1 and Table A8.1) declined from 10.4 to 7 tonnes per worker, well below the EU average (14.3 tonnes per worker in 2022) ([48]), indicating a positive trend in the green transition. In line with the Council Recommendation on ensuring a fair transition towards climate neutrality ([49]), Malta's national recovery and resilience plan (RRP) outlines reforms and investments in, for example: i) renovating public buildings such as hospitals and schools; ii) decarbonising and increasing access to public transport; iii) providing support for purchasing zero-emission electric vehicles in the private sector; and iv) developing green skills in the construction sector. These help implement the REPowerEU plan, and complement actions supported under Cohesion policy funds, including the installation of onshore power supply at Grand Harbour and Malta Freeport supported by the Just Transition Fund, as well as actions supported by the European Social Fund Plus (ESF+).

Upskilling and reskilling workers is instrumental to tackling skills shortages related to the green transition. In 2023, employment in Malta's energy-intensive industries represented 1.1% of total employment (EU: 3.5%). The job vacancy rate in construction (see Graph A8.2), a key sector for the green transition, is lower than the EU average (3% vs 3.6% in EU in 2023). At the same time, 82% of small and medium-sized enterprises (SMEs) in the sector agreed that skills shortages are holding them back in general business activities and 51% think that the skills required for greening business activities are becoming more important (EU: 42%) ([50]). If Malta matches its projected contribution to the EU's 2030 renewable energy target, a further 110 skilled workers will be needed for the deployment of wind and solar energy, which may require an investment in skills of EUR 0.4-0.5 million. ([51]) Measures under the Just Transition Plan provide reskilling and upskilling opportunities for workers affected by the transition, together with a broader training offer at national level and flexibility mechanisms to encourage in-company training. In Malta, 43% of ESF+ funding contributes to supporting quality and inclusive education, training and lifelong learning. Several programmes co-financed by the ESF+ provide upskilling and reskilling opportunities (education, training, guidance, lifelong learning, etc.) for unemployed people and workers, with a focus on green and digital skills and jobs.

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



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

Energy poverty indicators in Malta have improved in recent years. The share of the population unable to keep their homes adequately warm decreased from 14.1% in 2015 to 7.6% in 2022, below the EU average (9.3%) ([52]). The indicator decreased by 0.2 percentage points between 2021 and 2022, despite energy price increases due to supply constraints caused by the

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

([49]) 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.

([50]) Eurobarometer on skills shortages, recruitment, and retention strategies in small and medium-sized enterprises (Q4_1 and Q1_3).

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

([52]) 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.

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

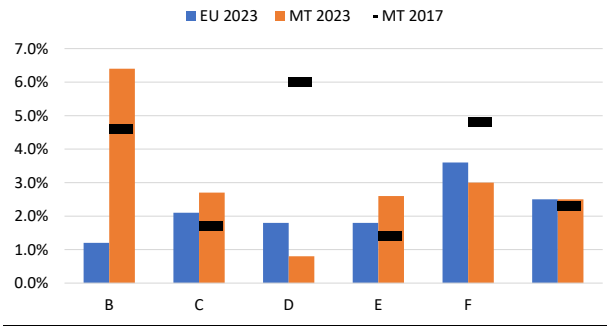
Indicator	Description	MT 2015	MT	EU
GHG per worker	Greenhouse gas emissions per worker – CO_2 equivalent tonnes	10.4	7.0 (2022)	14.3 (2022)
Employment EII	Employment share in energy-intensive industries, including mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24) and automotive (C29)	1.3%	1.1% (2023)	3.5% (2023)
Energy poverty	Share of the total population living in a household unable to keep its home adequately warm	14.1%	7.6% (2022)	9.3% (2022)
Transport poverty (proxy)	Estimated share of the AROP population that spends over 6% of expenditure on fuels for personal transport	38.4%	37.6% (2023)	37.1% (2023)
Carbon inequality	Ratio between the consumption footprint of the top 20% vs bottom 20% of the income distribution	1.4	1.4 (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.

pandemic and Russia's war of aggression against Ukraine. This improvement may be due to mostly untargeted emergency measures implemented in Malta ([53]). In particular, 14.1% of the population at risk of poverty (AROP) (EU: 20.1%) and 10.3% of lower middle-income households (in deciles 4-5) (EU: 11.6%) were affected in 2022, marking a decline since 2015 (from 27.4% and 15.8%, respectively). Malta addresses energy poverty through direct income and universal energy price support measures, but also through more targeted structural measures such as energy efficiency improvements, support for roof-top PVs and advisory services for vulnerable customers. On the other hand, in January 2023, 37.6% of the population at risk of poverty spent a considerable proportion of their budget (more than 6%) on private transport fuels (EU: 37.1%) ([54]).

Despite being below the EU average, environmental inequalities remain an issue in Malta. In 2021, the average carbon footprint for 20% of the population with the highest income is 1.4 times higher than the poorest 20% ([55]) (EU: 1.8). For both groups, the carbon footprint is highest for food and mobility. The average level of air pollution in 2021 stood slightly above the EU average (11.6 vs 11.4 µg/m³ PM2.5), with most of the population living in regions exposed to critical levels ([56]). This has significantly impacted health, in particular, in vulnerable groups, and caused around 200 premature deaths annually ([57]). Malta's RRP includes measures to tackle mobility challenges through decarbonisation and increased access to public transport.

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.

Malta is taking steps for fair transition towards climate neutrality in the context of the Council Recommendation of June 2022. Malta has implemented specific projects which focus on skills development for the green transition. Cohesion policy funds and the RRP are used for promoting entrepreneurship in, among others, the green sectors. The Malta Development Bank helps businesses with investments supporting the clean energy transition. Further action is needed to address the challenges emerging from the green transition, such as tailored job-search facilities and a comprehensive strategy on green skills development ([58]).

([53]) See Box 1 in 2023 country report for Malta.

([54]) 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.

([55]) 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)

([56]) Two times higher than the recommendations in the WHO Air Quality Guidelines (annual exposure of 5µg/m³).

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

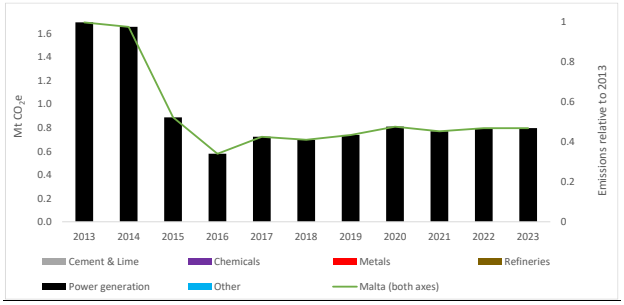
([58]) Based on the monitoring review of the Council Recommendation on ensuring a fair transition towards climate neutrality, which took place in October 2023.

The green transition of industry and the built environment, in particular decarbonisation, resource efficiency and circularity, is essential to boost Malta's competitiveness ([59]). The priority for Malta is waste management.

Malta is progressing in its transition to the circular economy. Between 2018 and 2022, Malta's circular material use rate increased from 8.3% to 15.1%, against an EU average of 11.5%. Resource productivity has also grown and stood at 3.3 purchasing power standards per kilogram in 2022, exceeding the EU average. Improving resource productivity can help minimise negative impacts on the environment and reduce dependence on volatile raw material markets. Malta relies on imports more than other EU countries, making the country comparatively more vulnerable to supply chain disruptions. In 2022, its material import dependence stood at 68.3% (EU average: 22.4%). Furthermore, the manufacturing sector accounted for 2.4% of water abstracted in 2019.

Waste management in Malta continues to rely heavily on landfilling. The country failed to meet the EU 2020 municipal waste recycling target and is on course to miss the 2025 municipal waste and packaging waste recycling targets, as well as the 2035 municipal waste landfilling reduction target. Municipal waste recycling accounted for 13.6% in 2021, one of the lowest rates in the EU. The plastic packaging recycling rate is below the EU average, but is increasing, reaching 20.5% in 2021. Malta remains highly dependent on landfilling activities, risking not achieving the target of a maximum of 10% of municipal waste landfilling by 2035. Malta is in the process of building a waste-to-energy plant with a capacity of 192,000 tonnes per year. The packaging recycling rate has dramatically decreased over the past decade and stood at 38.4% in 2021(EU average: 64%). Malta did not register any new patents on waste and recycling in 2020. Malta's national energy and climate plan does not extensively address the role of circularity in the decarbonisation of economy. The plan addresses emissions from waste and the need to improve waste collection, treatment, and prevention.

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



Source: European Commission

Disregarding air transport, all of Malta's greenhouse gas emissions covered by the EU emissions trading system (ETS) ([60]) come from power generation. Malta's power sector registered significant greenhouse gas reductions in 2013-2018, by 59%, but its emissions have been slightly increasing thereafter. In 2023, Malta's greenhouse gas emissions from power generation were 8% above 2018 levels.

There is still room for limiting the industry's impacts on the environment. The grams of PM2.5 emitted per economic output (EUR'10) ([61]) decreased from 0.02 in 2017 to 0.01 in 2020, versus an EU average of 0.07 grams/EUR'10 in 2020. A similar trend was reported for PM10, with 0.03 grams/EUR'10 in 2017 and 0.02 grams/EUR'10 in 2020, versus an EU average of 0.10 grams/EUR'10 in 2020. Moreover, during the last decade, Malta has decreased its industrial emissions into the air of the main pollutants except for PM10, the trend which does not show a consistent decrease over time. However, nitrogen and phosphorous emissions into water increased between 2010 and 2019. The country produced 81 kg of hazardous waste per capita and treated only 1.2% of it. Malta suffers from lack of economies of scale and land availability making it unfeasible to develop a full array of treatment solutions for all hazardous waste. The country is dependent on exports of hazardous waste. Such

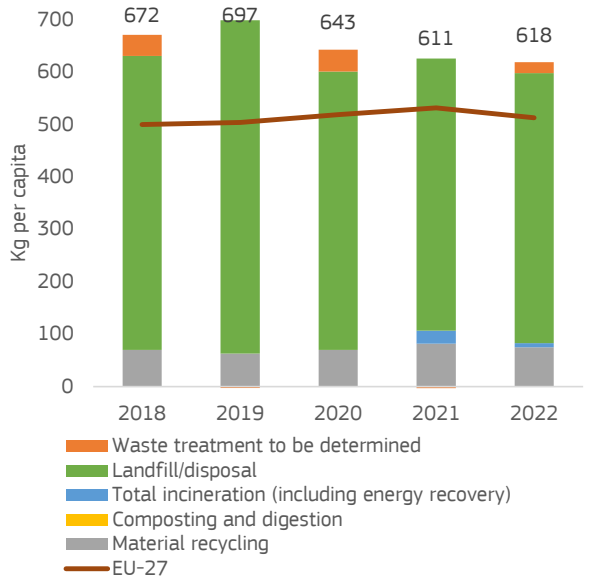
([59]) See also Annexes 6, 7 and 12.

([60]) 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.

([61]) In 2010 prices.

exports are mostly directed to other Member States. 74% of the exported hazardous waste in 2022 was exported for recovery. According to the assessment of data in the 12th Urban Waste Water Treatment Directive implementation report, in 2020, Malta presented full compliance at the collection level, but very low compliance for treatment, around 6% for secondary and 0% for tertiary treatment. The distance to the EU target was 94% in 2020.

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



Source: Eurostat

The built environment system remains critical as construction grows at a rapid rate. This is causing major environmental challenges such as land sealing, environmental impacts and increasing construction and demolition waste. Malta has taken steps to counteract the situation by making the building regulator operational and by adopting a strategy for construction and demolition waste. The proportion of backfilling has remained well above the EU average of 9.9% and stood at 56% in 2020. There is room to use the building stock more efficiently. The residential floor area per capita was below the EU average in 2020, 28.8 $m^{2,}$ versus 36.5 m^2 and has decreased over time. A similar trend can be observed for the non-residential floor area.

High levels of soil sealing and limited green areas in urban environments reduce Malta's resilience to heat waves. In 2018, Malta held the worst soil sealing record in the EU with a total 19.4% of the total country area (2.23% EU average). In the 2012-2018 period, the net land take increased by 5 times since the previous 2006-2012 period, faster than the population growth. The 8th Environment Action Programme objective of managing land sustainably and reaching no net land take by 2050 should be duly observed. Land take mostly occurs in urban areas and their commuting zones, where arable land is the most affected. Malta had the second-highest levels of land recycling and densification in the EU, 44% (EU average: 13.5%), in 2006-2012. Green infrastructure is key in mitigating extreme climate events, such as heat waves. The 2012-2020 National Biodiversity Strategy and Action Plan explicitly addresses green infrastructure and connectivity, as well as the national environmental policy. In Malta's main city the average tree coverage only reached 6.6% in 2018 (EU average: 30.3%).

Table A9.1: **Circularity indicators**

	2018	2019	2020	2021	2022	2023	EU-27	Latest year
Industry								
Resource productivity (purchasing power standard (PPS) per kilogram)	2.4	2.7	2.3	2.7	3.3	-	2.5	2022
Circular material use rate (%)	8.3	12.8	16.5	12.8	15.1	-	11.5	2022
Eco-innovation index (2013=100)	93.5	79.8	79.2	78.8	79.8	-	121.5	2022
Recycling of plastic packaging (%)	11.1	15.4	10.2	20.5	-	-	40.7	2021
Cost of air emissions from industry (EUR bn)	0.0	0.1	-	-	-	-	352.7	2021
Built environment								
Recovery rate from construction and demolition waste (%)	100.0	-	100.0	98.4	-	-	89.0	2020
Soil sealing index (base year = 2006)	104.6	-	-	-	-	-	103.4	2018
Non-residential floor area (m^2 per capita)	8.6	8.4	8.2	-	-	-	18.0	2020
Waste backfilled (%)	77.7	-	62.1	-	42.0	-	9.9	2020

Source: Eurostat, European Environment Agency

Digital transformation is key to ensuring a resilient and competitive economy. In line with the Digital Decade policy programme and, in particular, with its targets for digital transformation by 2030, this Annex describes Malta's 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). Malta allocates 26% of its total Recovery and Resilience Facility budget to digital (EUR 67.6 million) ([62]). Under cohesion policy, an additional EUR 129 million (17% of the country's total cohesion policy funding) is allocated to the country's digital transformation ([63]).

The Digital Decade policy programme sets out a pathway for the EU's successful digital transformation by 2030. Malta'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 ([64]). Through this, 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 ([65]). Digital technologies, infrastructure and tools all play a role in addressing the current structural challenges, including strategic dependence in various areas, cybersecurity and climate change.

Malta performs above the EU average on digital skills, but shortages in the labour market persist. At 4.7%, the percentage of ICT specialists in the Maltese workforce is slightly below the EU average. Moreover, 69% of enterprises report hard-to-fill vacancies for jobs requiring ICT specialist skills, above the EU average of 63% ([66]). As part of its RRP, Malta launched a scholarship scheme in 2021 to support students studying artificial intelligence, cybersecurity, data science and information studies, among others. There is room for more targeted measures to ensure that skilled talent can support the increasing uptake of advanced technologies and facilitate more research and innovation by Maltese enterprises.

Progress on 5G and fibre coverage strengthens Malta's performance on connectivity. Since 2019, all Maltese households have had access to very high capacity networks (VHCNs) offering speeds of 1 Gbps and more. Fibre to the premises (FTTP) coverage reached 70%, surpassing the EU average of 64% in 2023. Malta achieved nationwide overall 5G coverage in 2022, but there is room for improving coverage on essential bands for enabling advanced applications requiring large spectrum bandwidth. 5G coverage on the 3.4-3.8 GHz pioneer spectrum band stood at 25%, significantly below the EU average of 41%. While spectrum on all three 5G pioneer bands was made available in 2021, Malta has to date not assigned spectrum on the 700 MHz and 26 GHz bands due to lack of market interest, pointing to the small size of the country's territory and market.

Maltese enterprises, including SMEs, have a high level of digitalisation. The use of advanced digital technologies is significantly more widespread among enterprises in Malta than in the EU overall; specifically the use of big data analytics, cloud computing and artificial intelligence is above EU average. If we consider the indicator 'AI or cloud or big data', measuring the percentage of Maltese enterprises that have taken up one or more of AI, cloud or big data, in line with their business operations, Malta is well above the EU average (68% versus 55%). However, there is still room for SMEs to catch up

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

([63]) 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.

([64]) 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).

([65]) 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.

([66]) Eurostat: ICT specialists - statistics on hard-to-fill vacancies in enterprises (as % of enterprises which recruited / tried to recruit ICT specialists), 2022.

with their larger peers. The Maltese RRP supports investments in the digitalisation of businesses with two grant schemes launched in 2022. One of these is specifically designed to stimulate the uptake of ICT hardware and software by SMEs. Beyond uptake, there are ample opportunities for stronger cooperation between the public sector, businesses and academia to strengthen research and innovation in emerging digital technologies. Malta's RRP partly addresses this challenge with the 2021-2027 smart specialisation strategy adopted as part of it. The strategy identifies digital technologies (e.g. artificial intelligence, the Internet of Things, high performance computing, distributed ledger technologies) as one of six priority areas for investment in research infrastructure. Considering Malta's environmental challenges, there is an opportunity to invest in the development and use of innovative digital technologies in support of the green transition (e.g. applications to support energy efficiency, water management, smart mobility, etc.). In 2022, 3.3% of enterprises in Malta reported ICT service outage due to cyberattacks (e.g. ransomware attacks, denial of service attacks). Over the same year, 26% of enterprises developed or reviewed their ICT security policy within the previous 12 months.

Malta is a leader in digital public services. Citizens and businesses can access nearly all public services online through the government's one-stop-shop portal servizz.gov. Malta's RRP includes several investments to further improve digital public services, such as artificial intelligence solutions to improve the user experience on servizz.gov and measures to strengthen the overall security and capacity of the government's IT infrastructure. The country's electronic identification (eID) scheme, which has been notified under the eIDAS Regulation ([67]), can be used to log in to 91% of online public services ([68]), including to access electronic health records. For access to e-health records, Malta scores 88 out of 100. Related to Malta's need for digital tools to support healthcare, cohesion policy funds are supporting investments for the digitalisation of health services aiming to strengthen synergies between various services to ensure availability of streamlined and easily accessible patient information for both patients and relevant medical staff across departments, including outpatient departments.

([67]) Regulation (EU) No 910/2014.

([68]) 2022 eGovernment Benchmark.

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

	Malta			EU	Digital Decade target by 2030 (EU)
	2022	2023	2024	2024	
Digital skills					
At least basic digital skills	**61%**	**61%**	**63%**	**56%**	**80%**
% individuals	2021	2021	2023	2023	2030
ICT specialists ([1])	**4.8%**	**5.0%**	**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	**100%**	**100%**	**100%**	**79%**	**100%**
% households	2021	2022	2023	2023	2030
Fibre to the premises (FTTP) coverage ([2])	**48%**	**56%**	**70%**	**64%**	**-**
% households	2021	2022	2023	2023	
Overall 5G coverage	**20%**	**100%**	**100%**	**89%**	**100%**
% populated areas	2021	2022	2023	2023	2030
Digitalisation of businesses					
SMEs with at least a basic level of digital intensity	**73%**	**NA**	**77%**	**58%**	**90%**
% SMEs	2021		2023	2023	2030
Data analytics	**NA**	**NA**	**36%**	**33%**	**-**
% enterprises			2023	2023	
Cloud	**48%**	**48%**	**58%**	**39%**	**-**
% enterprises	2021	2021	2023	2023	
Artificial intelligence	**10%**	**10%**	**13%**	**8%**	**-**
% enterprises	2021	2021	2023	2023	
AI or cloud or data analytics ([3])	**NA**	**NA**	**68%**	**55%**	**75%**
% enterprises			2023	2023	2030
Digitalisation of public services					
Digital public services for citizens	**100**	**100**	**100**	**79**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Digital public services for businesses	**97**	**97**	**100**	**85**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Access to e-health records	**NA**	**78**	**88**	**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

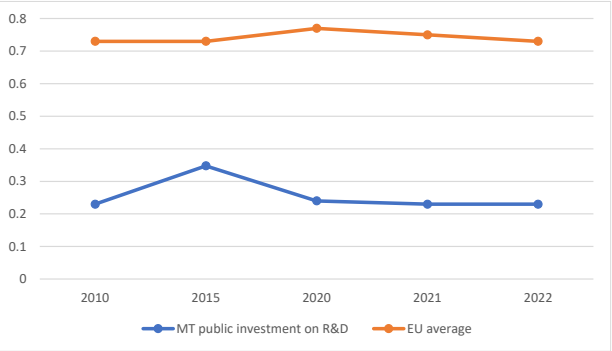
This Annex provides a general overview of the performance of Malta's research and innovation system, which is essential for delivering the twin transition and ensuring long-term competitiveness.

Malta is a 'moderate innovator', but the gap between its performance and the EU average is narrowing. According to the 2023 edition of the European Innovation Scoreboard ([69]), its innovation performance increased by 10.9 percentage points since 2016, at a higher rate than the EU's (8.5pp). However, its overall performance remains below the EU average (85.8% of the EU performance).

Total R&D intensity remains very modest (0.69% in 2022 against an EU average of 2.24%) and it is lower than 10 years ago ([70]), with weak public expenditure that continues to hamper the R&I potential of the country. Public investment in R&D has been stagnant since 2010 (and remains well below the EU average: 0.23% of GDP against EU average of 0.73% in 2022), not mirroring the country's significant GDP growth over the past few years. The need to build a robust R&I enabling framework, sustained also through growing investments in the public sector, is acknowledged in Malta's national research and innovation strategic plan 2023-2027 which was adopted in November 2023 and builds on the outcomes and recommendations of the Policy Support Facility (PSF) peer review undertaken in 2019 ([71]).

The innovation capacity of Maltese firms remains unexploited, with very low private investment in R&D and companies experiencing difficulties in accessing finance. Private expenditure in R&D is significantly below the EU average (0.46% of GDP against the EU average of 1.48%). The level of public support for business R&D is one of the lowest in the EU and has been decreasing over the years, declining from 0.04% of GDP in 2010 to 0.01% in 2021.

Graph A11.1: **Public expenditure on R&D as a % of GDP**



Source: Eurostat

The same trend can be observed with respect to the availability of venture capital (0.005%[72] in 2022, down from 0.010% in 2010, and well below the EU average of 0.085%). According to the European Investment Fund, Malta is at the bottom of the EU ranking as regards access to private capital and funding for SMEs ([73]). The country's technology output is modest. The European Innovation Scoreboard shows a negative performance compared to 2022 for small and medium-sized enterprises introducing product or business process innovations. However, it is positive to observe that Malta's patenting activity (number of patents filed under the Patent Cooperation Treaty) has been on an increasing trend over the last decade, although it is still well below the EU average. To support companies' innovation activities, as provided for in its recovery and resilience plan (RRP), the country is trying to streamline and simplify the funding landscape, including through the development of common account management within Malta Enterprise and the Malta Council for Science and Technology (MCST).

The lack of human resources has been widely acknowledged by the private and public sectors as a key challenge and attracting and retaining talent remain an urgent need for Malta. According to a new Eurobarometer survey ([74]), almost two-thirds of businesses in Malta say that their work is being held up because of skills shortages in the labour market. Among

([69]) 2023 European Innovation Scoreboard (EIS), country profile: Malta https://ec.europa.eu/assets/rtd/eis/2023/ec_rtd_eis-country-profile-mt.pdf. The EIS provides a comparative analysis of innovation performance in EU countries, including the relative strengths and weaknesses of their national innovation systems (also compared to the EU average).

([70]) Total R&D intensity was 0.80% of GDP in 2012.

([71]) 2019 peer review of the Maltese R&I system.

([72]) Venture capital (market statistics) as % of GDP.

([73]) The 2022 EIF SME Access to finance Index.

([74]) Report Flash Eurobarometer 529.

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

Malta	2010	2015	2020	2021	2022	EU average (1)
Key indicators						
R&D intensity (GERD as % of GDP)	0.59	0.72	0.65	0.65	0.69	2.24
Public expenditure on R&D as % of GDP	0.23	0.35	0.24	0.23	0.23	0.73
Business enterprise expenditure on R&D (BERD) as % of GDP	0.36	0.37	0.41	0.42	0.46	1.48
Quality of the R&I system						
Scientific publications of the country within the top 10% most cited publications worldwide as % of total publications of the country	7	9.1	8.7	:	:	9.6
Patent Cooperation Treaty (PCT) patent applications per billion GDP (in PPS)	0.7	1	1.89	:	:	3.4
Academia-business cooperation						
Public-private scientific co-publications as % of total publications	5.2	5.3	6.2	7.5	7.6	7.6
Public expenditure on R&D financed by business enterprise (national) as % of GDP	0.003	0.002	0.004	0.003	:	0.054
Human capital and skills availability						
New graduates in science & engineering per thousand pop. aged 25-34	8.1	9.7	5.4	5.2	:	16.9
Public support for business enterprise expenditure on R&D (BERD)						
Total public sector support for BERD as % of GDP	0.04	0.045	0.01	0.01	:	0.204
R&D tax incentives: foregone revenues as % of GDP	0.03	0.019	0	0	:	0.104
Green innovation						
Share of environment-related patents in total patent applications filed under PCT (%)	15.4	39.1	3.4	:	:	14.7
Finance for innovation and economic renewal						
Venture capital (market statistics) as % of GDP	0.01	0.01	0.006	0.006	0.005	0.085
Employment share of high growth enterprises measured in employment (%)	:	:	19.36	:	:	12.51

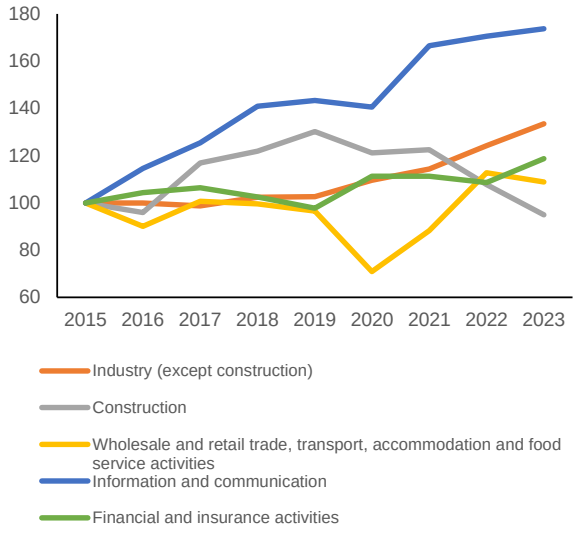
(1) EU average for the last available year or the year with the largest number of country data.
Source: Eurostat, OECD, DG JRC, Science-Metrix (Scopus database and EPO's Patent Statistical Database), Invest EU

the respondents, 87% of employers say that they have trouble recruiting staff for at least one role in their company and over half say that the lack of skilled workforce is preventing them from investing in green business practices; just under half say they are struggling to adopt digital technologies in their business. The availability of human resources for research and innovation is a major concern. The number of new graduates in science and engineering per thousand population aged 25-34 is critically low and continues to decrease, falling to 5.2 in 2021, well below the EU average of 16.9. Moreover, the number of researchers employed both in the public and private sector is very low.

Further efforts are needed to raise the quality of Malta's public science base and to enhance academia-business cooperation. The good degree of internationalisation of Malta's research system is visible in the share of foreign doctoral students, which has significantly increased in recent years, as well as in terms of international co-publications (63.9% in 2022 as a percentage of the total number of publications, higher than the EU average of 55.5%). However, the quality of Malta's scientific output, as measured by the share of the country's publications among the top 10% most-cited worldwide, remains below average. In addition, indicators suggest that Malta's innovation ecosystem is fragmented and that academia-business cooperation, while having improved over time, is still facing significant challenges. Public-private scientific co-publications increased in recent years but settled at 7.6% of the total number of publications. In addition, public expenditure on R&D financed by businesses remains remarkably low and has been stagnant in the past decade (0.003% in 2021 against the EU average of 0.054%). Stronger science-business collaboration is needed to retain talent and foster the valorisation of research outputs. The need to stimulate public-private partnerships is recognised also in the national research and innovation strategic plan 2023-2027 and was already identified as a priority in the smart specialisation strategy 2021-2027. Various measures aimed at strengthening collaboration and knowledge transfer across academia and industry are supported thanks to cohesion funds, including support for the setting up of a business incubation centre.

Labour productivity continues to grow at a similar pace to the EU average, although sectorial differences are considerable. Labour productivity (in terms of GDP per person employed) has been mainly driven by high productivity sectors like manufacturing and services such as real estate, information and communication, gaming, as well as professional, scientific and technical services. Labour productivity growth in industry reached 3.8% in 2023 (see Table A12.1) ([75]).

Graph A12.1: **Real labour productivity (GDP per hour worked), by sector, 2015=100**



Source: European Commission

Due to their size and geographical position, Maltese businesses encounter specific challenges in terms of price and supply chain developments. Malta's industrial production capacity relies largely on machinery, energy and chemical imports from EU Member States and Asia. Price changes on the world market therefore affect Maltese businesses directly. The energy price is currently fixed at 2020 levels, and the government provides subsidies to the energy sector. These untargeted subsidies helped to contain inflation to some extent, but place a heavy burden on the government budget, reduce the incentive to invest in energy efficiency measures, and tend to benefit higher income consumers ([76]). On disruptions to international trade, Maltese firms consider 'Disruptions of logistics and transport' and 'Access to commodities or raw materials' as main obstacles (80% and 74% respectively, vs EU averages of 65% and 62%) ([77]). Although tensions in material shortages eased in 2023, manufacturing firms report shortages in raw materials and components (24% in 2023 vs 17% in the EU) as their main production constraint (see Table A12.2). Moreover, 50% of Malta's international companies interviewed by Ernst and Young cited supply chain concerns as weighing on their financial situation ([78]). These external dependencies may explain Malta's continuously high level for the economic uncertainty indicator (EUI) ([79]) in 2023.

Malta continues to face considerable shortages of skilled workers and skills mismatches across sectors. Availability of skilled staff is the most cited long-term barrier to investment according to the EIB Investment Survey (93% of Maltese firms vs EU average of 81%). Although the problem prevails across sectors, high value-added service sectors such as financial services, information and communication and gaming are particularly affected. According to the Ernst & Young Attractiveness Survey, foreign investors claim that the technical skills of the workforce are one of the most important priorities when choosing an investment country. Reported areas of future technology investments are artificial intelligence, intelligent automation and distributed cloud. While foreign investors are successful in retaining and training their workforce, they increasingly find it difficult to employ local staff ([80]). In addition, according to the Survey on access to finance of enterprises (SAFE), 25% of small and medium-sized enterprises (SMEs) indicate 'availability of skilled staff or experienced managers' as one of their most pressing concerns ([81]). The tight Maltese labour

([75]) Malta The National Productivity Board (2022). Annual Report 2022.

([76]) IMF (2023). Malta, selected issues, IMF Country Report No. 23/79.

([77]) EIB Investment Survey (2023).

([78]) EY Future of manufacturing 2022.

([79]) The EUI is a composite indicator that shows how difficult it is for managers/consumers to predict the future business/financial situation. It is published regularly by the European Commission as part of its business and consumer surveys (https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/business-and-consumer-surveys_en).

([80]) Malta Attractiveness Survey 2023 – EY Malta. https://www.ey.com/en_mt/articles/19th-malta-attractiveness-survey

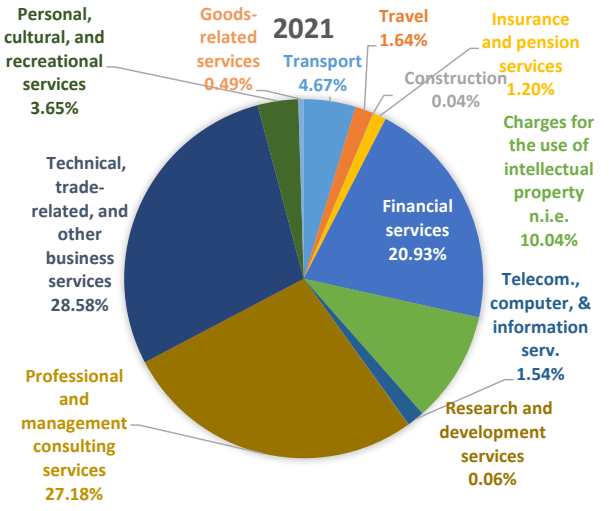
([81]) European Commission (2023). Survey on access to finance of enterprises (SAFE), Analytical Report 2023.

market situation is exacerbated by its geographical position and size. Employing more foreign workers has only partially eased the situation.

Maltese SMEs would benefit from easier access to finance, especially to alternative financing and the use of equity. SMEs form the backbone of the Maltese economy and are the main contributors to economic growth and employment. In 2023, their value added grew by 12.8% (13.1% in 2022) ([82]). According to the EIB Investment Survey, Maltese businesses rely to a large extent on internal finance (74%). This may be due to relatively high financing costs but is also related to difficulties in accessing bank lending due to the small market size. Furthermore, the share of financially restricted firms in 2023, at 11.2%, remained above the EU average of 6.1%. Meanwhile, domestic firms made no use of equity or debt securities ([83]). Other financing channels such as business angels and crowdfunding remain unexploited. Despite some initiatives by the government. Malta's venture capital investment as share of GDP is among the lowest in the EU (see Table A12.2).

Malta is well integrated into the single market for services, while certain restrictions persist. Malta's services trade integration represents 60% of GDP ([84]), the second highest of all Member States and much higher than the EU average (14.9%). Service exports are mainly dominated by 'other business services', financial services and intellectual property charges (see Graph A12.2). However, the weakening of external demand from EU trading partners such as Germany and Italy could restrict service trade performance ([85]). In contrast to service trade integration, Malta's trade integration in the single market for goods (15%) remains below the EU average (28%) according to Eurostat.

Graph A12.2: **Shares of services exports**



(1) Trade in services – share in total world exports (%)
Source: European Commission

In recent years, Malta has considerably improved in some key indicators ([86]) on public procurement. The reported rate of single bids (only one submitted offer), at 15%, is still way below the EU average of 29%. The rate of negotiated procedures without publication, at 1%, is also the lowest in the EU and well below the EU average of 5%. Malta ranks among the best in the EU for the rate of contracts awarded to SMEs (91%; EU average 62%) and the rate of offers from SMEs (92%; EU average 73%).

However, the Maltese public procurement system still faces several challenges. The number of direct awards is among the highest in Malta (13% vs EU average 8%), and it takes a relatively long time (163 days) for the public authorities to reach a decision on a tender (EU average 91 days) ([87]). The rate of contracts awarded based on the lowest price is 87%, well above the EU average rate of 66%. This indicates that more efforts are needed to promote strategic/quality-related procurement. Indeed, Malta has taken some steps to promote green procurement but is still in its early planning, while socially responsible and innovation procurement are still at an early stage. Lastly, further efforts

([82]) Malta SME Factsheet (2023).

([83]) EIB Investment Survey (2023).

([84]) Measured as average value of imports and exports as a share of GDP (https://single-market-scoreboard.ec.europa.eu/competitiveness/integration_en)

([85]) European Commission (2024). European Economic Forecast, Spring 2024.

([86]) The currently available data is preliminary. Due to the technical preparation of a new public procurement platform, only the regular data available in Tenders Electronic Daily (TED) has been taken into account.

([87]) European Commission, Single Market Scoreboard, forthcoming. Country data: Malta | Single Market Scoreboard (europa.eu)

are needed to fight corruption in public procurement markets. A recent Flash Eurobarometer report showed that 31% of companies in Malta think that corruption has prevented them from winning a public tender or a public procurement contract in the last 3 years. This is 5 percentage points above the EU average (26%) ([88]). Business associations have been collecting over 40 recommendations for improving the current process and are calling for public procurement reform to rationalise public spending (value for money), increase transparency, planning capacity and accountability, and ensure better access for firms ([89]). In addition, the OECD has published a number of recommendations to tackle public procurement in the short, medium and long term ([90]).

Indicators in the Single Market Scoreboard point to satisfactory performance in general, with some room for improvement on transposition delays. According to the Single Market Scoreboard, Malta remains among the best-performing Member States in transposing directives (0.6% vs 0.7% EU) and in the correctness of its transpositions (conformity deficit), which is 0.4% vs 1.2% in the EU ([91]). However, transposition delays remain (25.6 months vs 18.3 months in the EU), which hinders the use of single market rules for Maltese businesses. Malta solved 90% of the SOLVIT cases (29) it handled as lead centre, above the EU average of 88.3% ([92]).

Tackling long-term barriers such as administrative burden, transport infrastructure and payment delays would improve the Maltese business environment further. Business regulation and infrastructure are among the main long-term barriers to investment cited by businesses compared to the EU average (76% and 72% respectively, vs 61% and 46% in the EU). Firms encounter several issues and delays when dealing with government services, such as obtaining certificates and licences, setting up/closing businesses or using the interface of government services. Mobility and connectivity issues as well as insufficient traffic management affect businesses and also reduce the attractiveness of the economy for foreign investors ([93]). Malta's road network faced net daily growth of 58 vehicles in Q2-2023, and structural reform seems necessary ([94]). In 2023, late payments were identified by 76% of SMEs ([95]) (up from 61% in 2022) as a pressing problem, compared to the EU average of 49% ([96]). Investment under the recovery and resilience plan focuses on improving digitalisation in public administration, public services, companies and the justice system. This could help address several issues, especially if an integrated approach is applied.

Malta completed the different technical stages by finalising the configuration of the 'once-only' technical system (OOTS) ([97]). As part of the Single Digital Gateway Regulation ([98]), the system will enable the automated cross-border 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.

([88]) Eurobarometer 524 on Businesses' attitudes towards corruption in the EU (2023).

([89]) The Malta Chamber (2022). Recommendations for the 2023 National Budget.

([90]) OECD (2023). Public Procurement in Malta: Building Capacity and Managing Risks.

([91]) European Commission, Single Market Scoreboard, forthcoming. Country data: Malta | Single Market Scoreboard (europa.eu)

([92]) Single Market Scoreboard – SOLVIT

([93]) In the EY Attractiveness Survey 2023, investors cite this as the second priority for the country to remain globally competitive.

([94]) See also Annex 17, Economic and Social Performance at Regional level.

([95]) This is the highest share among all EU countries.

([96]) Survey on access to finance of enterprises (SAFE), 2023.

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

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

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

Malta							
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]	5,6	4,5	5,2	10,3	3,6	**3,8**
	Net Public investment, level of public capital stock, net of depreciation, % GDP[1]	1,4	1,5	2	1,1	1,5	**1,2**
	Real labour productivity per person in industry (% yoy)[2]	6	0,8	5,2	6,1	3,8	**-1,24**
Cost competitiveness	Nominal unit labour cost in industry (% yoy)[2]	-1,4	-2,7	1,7	-1,4	-0,7	**9,83**
SINGLE MARKET							
Single Market integration	EU Trade integration, % (Average intra-EU imports + average intra EU exports)/GDP[2]	0,0	53,3	70,0	75,7	75,0	**42,9**
Compliance	Transposition deficit, % of all directives not transposed[3]	0,3	0,7	1,1	0,4	0,6	**0,7**
	Conformity deficit, % of all directives transposed incorrectly[3]	0,6	0,8	1	0,6	0,4	**1,1**
	SOLVIT, % resolution rate per country[3]	100,0	91,7	93,8	86,7	90,0	**88,3**
	Number of pending infringement proceedings[3]	16	20	24	19	13	**25,9**
Restrictions	EEA Services Trade Restrictiveness Index[4]	-	-	-	-	-	**0,05**
Public procurement	Single bids, % of total contractors[3]	13	15	9	15	15	**28,6**
	Direct Awards, %[3]	1	1	1	9	13	**8,1**
ECONOMIC STRUCTURE							
Shortages	Material Shortage (industry), firms facing constraints, %[5]	3,1	9,0	47,3	41,5	24,0	**17,2**
	Labour Shortage using survey data (industry), firms facing constraints, %[5]	46,1	16,2	27,1	33,1	44,3	**23,3**
	Vacancy rate, % of vacant posts to all available ones (vacant + occupied)[2]	2,8	1,7	2,4	3,0	3,2	**2,5**
Strategic dependencies	Concentration in selected raw materials, Import concentration index based on a basket of critical raw materials[6]	0,17	0,15	0,16	0,19	0,19	**0,22**
	Installed renewables electricity capacity, % of total electricity produced[2]	0,0	0,0	0,0	0,0		**50**
BUSINESS ENVIRONMENT - SMEs							
Investment obstacles	Impact of regulation on long-term investment, % of firms reporting business regulation as major obstacle[7]	10,1	16,2	15,7	14,0	15,0	**22,2**
Business demography	Bankruptcies, Index (2015=100)[2]	150,0	100,0	133,3	100,0	133,3	**105,6**
	Business registrations, Index (2015=100)[2]	101,8	97,1	105,2	91,8	88,4	**120,2**
Late payments	Payment gap - corporates B2B, difference in days between offered and actual payment[8]	-	-	-	-	-	**15**
	Payment gap - public sector, difference in days between offered and actual payment[8]	-	-	-	-	-	**16**
	Share of SMEs experiencing late payments in past 6 months, %[9]	71,5	73,8	64,4	60,9	76,0	**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]	0,74	0,55	0,45	0,77	-	**0,49**
	EIF Access to finance index - Equity, Composite: VC/GDP, IPO/GDP, SMEs using equity, index values between 0 and 1[10]	0,17	0,05	0,05	0,07	-	**0,17**

Source: (1) AMECO, (2) Eurostat, (3) Single Market Scoreboard, (4) OECD, (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

Malta's public administration is essential for providing services and carrying out reforms. The perceived effectiveness of Malta's public administration is still below the EU average (Graph A13.1a). Malta's recovery and resilience plan (RRP) aims to boost the public administration's digital transformation. This complements the 2021-2027 digital strategy, which aims to reduce the digital divide. The updated RRP includes significant reforms to strengthen judicial independence and the institutional framework to help in the fight against corruption and money laundering.

Malta's digital public services have a high level of maturity. However, there has only been some improvement to facilitate access to open data and to make use of it: the country scores the lowest in the EU (Graph A13.1b). Malta adopted a data strategy for public administration in 2023, to make public services more accessible and aligned with the EU Data Governance Act. The share of users of government websites and applications in Malta is above the EU average and quickly rising. Under its RRP, Malta is actively working on, for example, improving administrative registers and implementing a new platform for data sharing. Malta is also looking to better the public administration's IT environment for remote work. Cohesion funds intend to support the development of a Digital Transformation Hub, which is also a testing area for pilot initiatives on digital processes for the public service.

The share of civil servants with higher education in Malta is below EU average (Chart A13.1c). However, participation in adult learning and education is relatively high (Table A13.1). In 2023, Malta launched a new internship policy to modernise and standardise the use of interns across the public service. Guidance is provided to managers, supervisors, and public officers on working with interns. Gender parity in senior civil service positions is increasing (Table A13.1).

Weaknesses in Maltese policymaking remain. There is no formal process for involving stakeholders ([99]), especially in the early stages of the process. Expected impacts and policy outcomes are not evaluated systematically. To increase the use of evidence, some ministries have set up monitoring and evaluation units.

The management of public investment could be improved across the full investment cycle ([100]). Currently, integrated visions outlining long-term country objectives only cover selected sectors or policy areas, such as the environment and decarbonisation. There is no clear monitoring process to ensure that these long-term objectives and subsequent action plans (e.g. the green public procurement national action plan for 2022-2027) or sectoral strategies are aligned and that these objectives are achieved. Investment plans of 5 to 10 years with large sectoral coverage, describing how public investment will contribute to achieving the national and sectoral strategies, can support implementation of the strategies and the effectiveness of how they are planned. Moreover, there is no widespread use of standardised assessment methodologies for projects.

There are serious concerns about the efficiency of the justice system. For instance, although lower than in 2021, the estimated time needed to resolve administrative cases at first instance is 1 081 days, which is the longest in the EU (though it improved compared to 2021, when it totalled 1356 days). The duration of litigious civil and commercial cases at first instance in 2022 is still very long (491 days although it decreased from 529 days in 2021). The clearance rate for civil, commercial, and administrative cases, showing how courts deal with caseloads, continued to deteriorate in 2022, remaining below 100% at around 87% against 89% in 2021. The quality of the justice system is overall good. However, resources for the judiciary are still a concern, in particular the low number of judges per inhabitant (third lowest in the EU, despite progress made), the lack of clerical staff, as well as limited space available in terms of offices and courtrooms. Digitalisation of the justice system needs improvement. In this regard, a new national digital justice strategy for 2022-2027, partly financed by the Recovery and Resilience Facility, was adopted. It aims to increase the use of digital tools by the courts and tackle other digitalisation gaps. On judicial independence, no systemic deficiencies have been reported ([101]).

([99]) 2023, Rule of Law Report. Country Chapter on the rule of law situation in Malta

([100]) Belu Manescu, C. (2022), 'New evidence on the quality of public investment Management in the EU', European Economy Discussion Paper No 177, European Commission.

([101]) For more details, see the 2024 EU Justice Scoreboard and the Commission's 2024 Rule of Law Report (forthcoming).

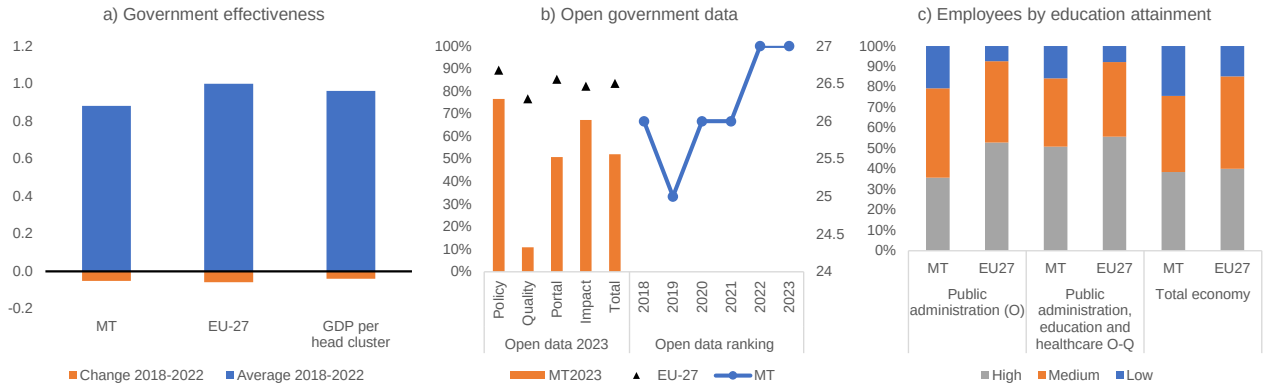
Table A13.1:**Public administration indicators**

MT	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	83.0	88.0	75.0
2	E-government benchmark overall score ([3])	n/a	96.3	95.5	95.7	96.9	75.8
3	Open data and portal maturity index	0.4	0.5	0.5	0.4	0.5	0.8
Educational attainment level, adult learning, gender parity and ageing							
4	Share of public administration employees with higher education (levels 5-8, %)	33.0	33.1	29.0 (b)	31.1	35.6	52.9
5	Participation rate of public administration employees in adult learning (%)	23.6	15.1	22.1 (b)	22.5	20.9	17.9
6	Gender parity in senior civil service positions ([4])	16.4	13.8	10.8	10.0	9.4	9.2
7	Ratio of 25-49 to 50-64 year olds in NACE sector O	2.7	2.9	3.0 (b)	2.9	2.5	1.5
Public financial management							
8	Medium-term budgetary framework index	0.7	0.7	0.7	0.7	n/a	0.7
9	Strength of fiscal rules index	1.3	1.3	1.3	1.3	n/a	1.4
Evidence-based policy making							
10	Regulatory governance	n/a	n/a	1.44	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).

Efforts could be made to strengthen the independent fiscal institution. The Malta Fiscal Advisory Council is a medium-sized institution with a relatively narrow mandate, which in particular does not cover policy costing and sustainability analysis. Since 2015, its budget has been frozen in real terms by law.

Graph A13.1: **a) Government effectiveness, open government data and c) share of employees by education attainment level**



(1) Chart a) 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 Malta (EU countries are ranked in terms of their GDP per head and grouped into three equally sized clusters).
Chart b) 2023 scores (in % of the total maximum score); Right-side chart: low values denote good performance.
Chart c) 2023 data, 26-64 age brackets; High: education levels 5-8; medium (3-4): low (1-2).
Source: a) Worldwide Governance Indicators; b) Open Data Maturity | data.europa.eu; Labour Force Survey (Eurostat).

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 Malta'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 Malta**

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)	39.9
	Early leavers from education and training (% of the population aged 18-24, 2023)	10
	Share of individuals who have basic or above basic overall digital skills (% of the population aged 16-74, 2023)	63.0
	Young people not in employment, education or training (% of the population aged 15-29, 2023)	7.5
	Gender employment gap (percentage points, population aged 20-64, 2023)	14.2
	Income quintile ratio (S80/S20, 2022)	4.8
Dynamic labour markets and fair working conditions	Employment rate (% of the population aged 20-64, 2023)	81.7
	Unemployment rate (% of the active population aged 15-74, 2023)	3.1
	Long term unemployment (% of the active population aged 15-74, 2023)	0.7
	Gross disposable household income (GDHI) per capita growth (index, 2008=100, 2022)	133.4
Social protection and inclusion	At risk of poverty or social exclusion (AROPE) rate (% of the total population, 2022)	20.1
	At risk of poverty or social exclusion (AROPE) rate for children (% of the population aged 0-17, 2022)	23.1
	Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP, 2022)	26.43
	Disability employment gap (percentage points, population aged 20-64, 2022)	30.1
	Housing cost overburden (% of the total population, 2022)	2.9
	Children aged less than 3 years in formal childcare (% of the under 3-years-old population, 2022)	43.1
	Self-reported unmet need for medical care (% of the population aged 16+, 2022)	0.3

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

Update of 23 April 2023. 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

The Maltese labour market is performing well but challenges for women and disadvantaged groups remain. Backed by robust economic growth, the country maintained a high level of employment, 81.7% in 2023 (vs EU 75.3%), with very low numbers of unemployed and people who are not in employment, education or training (NEETs). Nonetheless, some groups face challenges in terms of access, participation, retention of employment and working conditions. Despite a significant drop (-3.3 percentage points (pps)), the gender employment gap remains one of the widest in the EU (14.2 pps vs EU 10.2 pps, in 2023), even if the gender pay gap is narrower (10.2% vs EU 12.7% in 2022). In 2023, the employment rate of women aged 55-64 was particularly low (44.1% vs EU 58.1% in 2023), contributing to a wide gender pension gap (45 pps vs EU 26.1 pps in 2022). The increasing disability employment gap is 8.7 pps above the EU average and only half of the persons with disabilities of working age are active in the labour market. There are high levels of labour shortages and skills mismatches, with the vacancy rate at 2.8% 2023 (vs EU 2.7%), despite the high participation of non-Maltese nationals in the labour market. While Malta struggles to retain EU nationals, workers from non-EU countries often face poor working conditions. Their residence status is strictly linked to their employment contract, which makes them highly dependent on employers, and they also have difficulties in accessing decent accommodation ([102]). The European Social Fund Plus (ESF+) promotes employment and activation measures, especially for young people, women, non-EU nationals, older workers and persons with disabilities. Reforms under the recovery and resilience plan (RRP) target older workers, in particular women, and low-skilled adults. While further efforts are needed, these measures will help reach the 2030 national employment target of at least 84.6% of adults being employed.

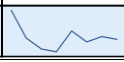
Labour shortages and skills mismatches in many sectors, poor educational outcomes, and a low participation in learning by low-skilled adults pose several interlinked challenges. While the early school leaving rate has steadily decreased (-0.9 pps from 2021 to 10.0% in 2023), it remains slightly above the EU average (9.5%) and feeds a large pool of low-skilled adults (15-64 age group) (33.1% vs EU 24.9%, in 2022). More than 30% of 15-year-olds lack basic skills (see Annex 15). Moreover, despite the continued investments in reskilling and upskilling of the adult population, there are widespread skills shortages in key areas, such as the green, digital, construction and manufacturing sectors (see Annex 8). 62% of businesses in Malta consider that their growth was being held back by

([102])See: Debono, M. (2021). Migrants and the challenge of decent work in Malta. e-Revista Internacional de la Protección Social (e-RIPS), Vol. VI, Nº 2; Housing Authority (2023), The private rental market in Malta. A holistic assessment based on registered contracts; Employment Agencies Regulations (2023).

skills shortages (Eurobarometer on the European Year of Skills, 2023). Although 63% of adults had at least basic digital skills in 2022 (vs EU 55.5%), the differences in skill levels are significant. In addition, the country presents both vertical (level of education) and horizontal mismatches (field of education), and skills sets tend to reflect traditional gender roles. The share of adults (aged 25-64) participating in education and training in the previous 12 months is in line with the EU average (39.9% in 2022). However, only 16.3% of low-skilled adults (vs EU 18.4%) participated in learning activities, against 37.6% of the medium-skilled and 65.9% of the tertiary educated. In addition, the share of learners enrolled in upper secondary vocational education and training (VET) is persistently low (27.0% vs EU 48.7% in 2021). The ESF+ allocates 43% of its budget to quality and inclusive education, training, and lifelong learning, supporting initiatives to prevent early school leaving and provide higher education scholarships in key sectors. The RRP aims to improve basic skills and literacy, track early school leavers, enhance online training, and adapt educational infrastructure for students with disabilities. Nonetheless, considerable efforts are needed to reach the national 2030 skills target of at least 57.6% of adults learning each year.

The risk of poverty or social exclusion remains high for specific vulnerable groups, revealing the presence of pressing social issues. In 2022, the share of people at risk of poverty or social exclusion (AROPE) at 20.1% remained stable, 1.5 pps below the EU average (21.6%). Yet, the rates are much higher for some vulnerable groups: non-EU nationals (30.6%), low-skilled adults (30.9%), over 65 (33.3%, a 3 pps increase from 2021) and, especially, persons with disabilities (36%). The income of the richest 20% of the population was 4.79 times higher than that of the poorest 20% (almost in line with the EU average). Nevertheless, in 2022, social transfers reduce poverty, as measured by the at-risk-of-poverty rate, only by 26.4% (vs EU 35.0%), despite recent improvements ([103]). The overall AROPE rate for children is 23.1%, below the EU average of 24.7% in 2022. However, some children are at a greater risk of poverty, including those with low-skilled parents (50.2%). Free childcare is available to children with parents in employment or education: the share of children under 3 years of age in formal childcare increased significantly from 24% in 2021 to 43.1% in 2022 (vs EU 35.9%). Implementation of the European Child Guarantee is ongoing, even though some measures lack target values.

Table A14.2:**Situation of Malta on 2030 employment, adult learning and poverty reduction targets**

Indicators	Latest data	Trend (2016-2022)	2030 target	EU target
Employment (%)	81.7 (2023)		84.6	78
Adult learning[1] (%)	39.9 (2022)		57.6	60
Poverty reduction[2, 3] (thousands)	-0.6 pps (2022)		-3.1 pps	-15,000

(1) Adult Education Survey, adults in learning in the past 12 months, special extraction excl. guided on-the-job training
(2) EU headline target set as a reduction in the number of persons at risk of poverty or social exclusion (AROPE), reference year 2019.
(3) Malta expresses its national target as a reduction of the share of persons at risk of poverty or social exclusion (AROPE) of 3.1 percentage points, reference year 2019.
Source: Eurostat, DG EMPL.

Access to social protection is an issue, especially for people in non-standard forms of work. While all employed and self-employed people are formally covered by social protection in Malta, some of them find it difficult to get the benefits to which they are entitled. The maximum duration of the unemployment benefit is among the shortest in the EU and the share of unemployed people receiving it is low. Moreover, the recipient rate for those in non-standard forms of work is low and the poverty rate among quasi-jobless households (with a very low work intensity) is high at 72.7% (vs EU 59.9% in 2022). People in Malta self-report low levels of unmet need for medical care (0.3% vs EU 2.2%) but the share of people who are obese (26.1% vs EU 14.8%) or overweight (62.5% vs EU 51.3%) is worryingly high. The ESF+ and the RRF promotes measures to boost social protection systems and support vulnerable groups, while also planning reforms and investments in healthcare and long-term care. Significant additional efforts are needed to reach the 2030 poverty reduction target of reducing the share of people at risk of poverty or social exclusion by 3.1 pps compared to the 2019 value.

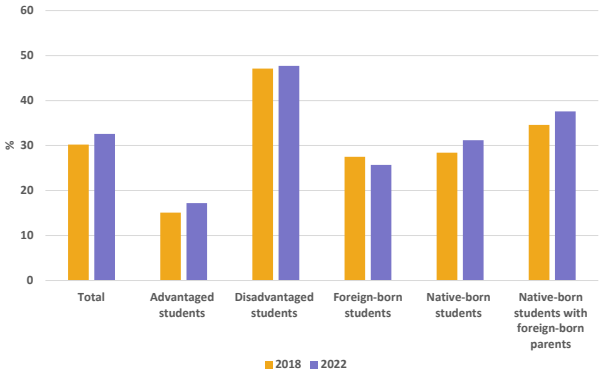
([103])Results of the Joint Research Centre, based on the EUROMOD model.

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

Lack of basic skills among young people represents a risk for skills development, labour productivity and competitiveness. The latest results of PISA 2022 show that more than 30% of 15-year-olds fail to achieve a minimum proficiency level of basic skills, which are the foundation for lifelong learning and future employability. In all three fields tested, the proportion of underachieving students is above the EU average (Table A15.1) and far from the EU-level target set for 2030 (<15%). The rate has not changed in mathematics and reading since 2015 ([104]). Science shows a decreasing trend: the share has decreased by 2.2 pps since then, but it is still 6.1 pps higher than the EU average (30.3% vs 24.2%). These are in line with the negative results recorded by the 2021 Progress in International Reading Literacy Study (PIRLS). The national curriculum framework is currently under revision. A new national education strategy (2024-2030) is in preparation which also includes a proposal for a mathematical literacy strategy.

Underachievement is widespread across the entire socio-economic distribution and the socio-economic gap has not improved since 2015. Around 47.7% of students from the bottom socio-economic quartile lacked basic skills in mathematics (EU 47.5%) in 2022 and the rate for the top quartile was also high (17.2% vs 11% at EU level). This shows that underachievement does not only concern disadvantaged students; it suggests that the Maltese school system does not adequately support the competence development of all students. However, results are significantly better for students attending Independent schools: the underachievement rate in mathematics is 16.7%, 23.9 pps and 15.1 pps lower than that of students attending public and Church schools ([105]), respectively. In the past decade, Malta has mainly focused its attention on reducing early school leaving by strengthening vocational education. The lack of basic skills represents a risk in the context of challenges linked to skills shortages (see Annex 14).

Graph A15.1: **Underachievement in mathematics in Malta by country of birth, PISA 2022**



Source: OECD (2023).

Low shares of top-performing students may hinder innovation capacity. The share of top performers in mathematics was 7.2% (EU 7.9%) in 2022 but it has decreased by 4.6 pps since 2015. With a decrease of 3.1 pps in the same period, the rate in science stood at 4.6% in 2022 against 6.9% at EU level. Only 4.5% of students had advanced skills in reading in 2022 (EU 6.5%).

Foreign-born students are less likely to underachieve. The proportion of low-achieving students is higher among native-born students without migrant background (31.2%) than among foreign-born students (25.7%) who represent 8.9% of the student population according to PISA. This share has increased by 5.4 pps since 2015. Results are worse among native-born students with foreign-born parents (37.6%).

Teacher shortages have been addressed by employing retired teachers, teachers on reduced hours, and substitute teachers. Typically, substitute teachers have a level of qualification different or lower than required for fully qualified teachers; this can have a potential impact on the quality of teaching. They can obtain the teacher's permanent warrant only if they improve their qualification. In 2022, they represented 12% of the total teaching staff at primary and secondary level ([106]).

([104])Malta did not participate in PISA 2012.

([105])Data provided by the Ministry for Education, Sport, Youth and Research.

([106])Data provided by the Ministry for Education, Sport, Youth and Research.

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

				2012		2018		2023	
Indicator			Target	Malta	EU-27	Malta	EU-27	Malta	EU-27
[1]Participation in early childhood education (age 3+)			96%	99.4% 2013	91.8% 2013	93.8%	92.2%	86.2% 2021	92.5% 2021,d
[2]Low-achieving 15-year-olds in:		Reading	< 15%	35.6% 2015	18.0%	35.9%	22.5%	36.3% 2022	26.2% 2022
		Mathematics	< 15%	29.1% 2015	22.1%	30.2%	22.9%	32.6% 2022	29.5% 2022
		Science	< 15%	32.5% 2015	16.8%	33.5%	22.3%	30.3% 2022	24.2% 2022
Early leavers from education and training (age 18-24)	[3]Total		< 9 %	18.1%	12.6%	14.0%	10.5%	10.0%	9.5%
	[3] By gender	Men		22.6%	14.5%	14.1%	12.1%	12.1% u	11.3%
		Women		13.4%	10.6%	13.8%	8.7%	7.6% u	7.7%
	[4] By degree of urbanisation	Cities		20.3% b	11.2%	17.7%	9.4%	9.6% u	8.6%
		Rural areas		19.0% bu	14.0%	: u	11.0%	: u	9.9%
	[5] By country of birth	Native		18.0%	11.3%	13.6%	9.2%	5.4% u	8.2%
		EU-born		: u	26.2%	: u	22.4%	: u	21.0%
		Non EU-born		: u	30.1%	26.1% u	23.0%	23.7% u	21.6%
[6]Socio-economic gap (percentage points)				:	:	31.9	29.5	30.6 2022	37.2 2022
[7]Exposure of VET graduates to work-based learning			≥ 60% (2025)	:	:	:	:	55.4%	64.5%
Tertiary educational attainment (age 25-34)	[8]Total		45%	28.3%	34.1%	40.2%	38.7%	46.3%	43.1%
	[8] By gender	Men		24.7%	29.1%	36.0%	33.3%	40.6%	37.6%
		Women		32.1%	39.2%	44.8%	44.2%	53.7%	48.8%
	[9] By degree of urbanisation	Cities		26.8% b	43.5%	41.0%	49.0%	45.3%	53.3%
		Rural areas		32.0% b	24.8%	54.3%	27.7%	: u	31.7%
	[10] By country of birth	Native		27.2%	35.4%	37.5%	39.7%	47.2%	44.2%
		EU-born		: u	29.3%	43.9%	36.7%	49.9%	40.2%
		Non EU-born		45.0%	24.2%	49.5%	31.0%	43.8%	37.1%
[11]Participation in adult learning (age 25-64)			≥ 47% (2025)	:	:	32.8% 2016	37.4% 2016	39.9% 2022	39.5% 2022
[12]Share of school teachers (ISCED 1-3) who are 55 years or over				8.8% 2013	22.7% 2013	7.7%	23.8%	9.0% 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.

Participation in early childhood education and care by children above the age of 3 is continuing to fall. The rate stood at 86.2% in 2021, compared with an EU average of 92.5%. The rate has further decreased by 2.9 pps since 2020. Conversely, the participation of children under 3 in formal childcare returned to its pre-pandemic levels (see Annex 14).

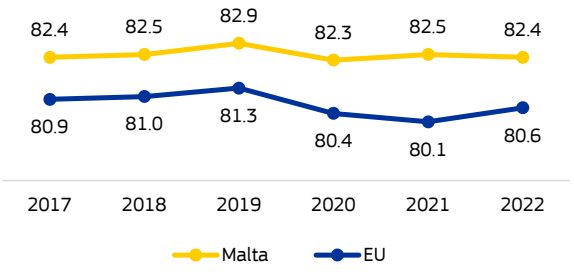
Although still slightly above the EU average, the rate of early leaving from education and training (ELET) is on a declining trend. It stood at 10.0% (EU 9.5%) in 2023 and it has decreased by 8.1 pps since 2012. This may be due to a series of measures undertaken in recent years. Efforts to curb the rate continue: in 2023, a new strategy on ELET that focused on prevention, intervention and compensation mechanisms was published. The data warehouse project envisaged in the national recovery and resilience plan may also help in designing better targeted actions providing data about students in public schools. It represents a step towards more evidence-based policy making.

Tertiary educational attainment increased in 2023. The tertiary educational attainment rate of people aged 25-34 stood at 46.3% in 2023 (EU 43.1%), 3.8 pps higher than in 2022. It has increased by 18 pps since 2012, mainly driven by the increasing proportion (20 pps) of native-born people attaining a tertiary qualification in the past decade. The gap with EU nationals (49.9%) stood at 2.7 pps in 2023, while the rate for native-born individuals (47.2%) was 2.5 pps higher than that of non-EU-born individuals. For the latter, the rate decreased between 2021 and 2022 (from 45.5% to 36.2%), then increased again to 43.8% in 2023. It is expected that more native-born people will achieve tertiary education in the years to come. The number of enrolments in tertiary education continued to increase between 2020 and 2021 (+7.5 pps). However, the results at school level call for measures to ensure that entrants to tertiary education have higher competences and that tertiary graduates can effectively respond to labour market needs (Annex 14).

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 Malta.

Life expectancy in Malta has been higher than the EU average both before and during the COVID-19 pandemic. Life expectancy slightly decreased in 2022, probably due to an increase in the reported number of COVID-19 deaths between 2021 and 2022 ([107]). Malta's mortality rate from treatable causes was lower than the EU average in 2021. At the same time, mortality in economically active age groups, as a share of total mortality and relative to the workforce size, is among the lowest in the EU. In 2021, diseases of the circulatory system ('cardiovascular diseases') and cancer were the leading causes of mortality. Malta has comparatively high mortality rates from diabetes and ischaemic heart disease, which correspond with the high prevalence of overweight and obesity. Malta has the highest obesity rates in the EU, among both adults and children; the topic is high on the public health agenda.

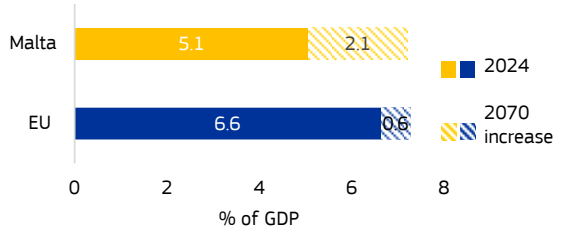
Graph A16.1: **Life expectancy at birth, years**



Source: Eurostat

Health spending relative to GDP significantly increased from 2019 to 2021 and is now near the EU average. Public spending on health as a proportion of total health spending is historically low but increased in 2020 and 2021 to reach 67.4%, still below the EU average of 81.1%. Household out-of-pocket payments, at 29.7% share of total health expenditure in 2021, are among the highest in the EU (especially for private primary and outpatient care and for medicines). Nevertheless, Malta reports one of the lowest levels of self-reported unmet needs for medical care in the EU, at 0.3% of the population in 2022 (see Annex 14). The largest share of total current health expenditure goes on outpatient care, followed by pharmaceuticals and inpatient care. Strengthening primary care in general and shifting treatment of chronic diseases from cost-intensive care in hospitals to primary care and community-care settings are ongoing challenges. Some of Malta's European Structural and Investment Funds programmes contribute to address these challenges. Malta is facing the highest increase in public spending on health in the EU due to the ageing of the population. This is projected to increase by 2.1 percentage points (pps) of GDP by 2070 (compared to 0.6 pps for the EU overall), raising long-term fiscal sustainability concerns (see Graph 16.2 and Annex 21).

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



Baseline scenario
Source: European Commission / EPC (2024)

Spending on prevention in Malta remains among the lowest in the EU. Between 2019 and 2021, spending on prevention in Malta, as a share of total health expenditure decreased from 1.5% to 1.2%, contrary to the trend across the EU. Malta was among the few EU countries where less than 3% of total healthcare spending went on prevention in 2021, against an EU average of 6.0%. Proportionally, budget shares for prevention across the EU increased most for emergency response, disease detection and immunisation programmes. Low spending levels for prevention in Malta raise questions about the preparedness of the health system for possible public health crises in the future. Another measure to safeguard public health is the ongoing rationalisation of the use of antimicrobials, as part of broader efforts to foster the rational use of medicines. The situation in Malta had improved significantly, with daily

([107]) Based on data provided directly by Member States to the European Centre for Disease Prevention and Control, under the European Surveillance System.

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)	91.8	85.0	89.3	81.8	NA	93.3 (2021)
Cancer mortality per 100 000 population	237.3	203.5	212.5	198.3	NA	235.4 (2021)
Current expenditure on health, % GDP	8.5	9.1	10.6	10.4	NA	10.9 (2021)
Public share of health expenditure, % of current health expenditure	63.5	62.5	66.7	67.4	NA	81.1 (2021)
Spending on prevention, % of current health expenditure	1.3	1.5	1.5	1.2	NA	6.0 (2021)
Available hospital beds per 100 000 population	431	410	438	414	NA	525 (2021)
Doctors per 1 000 population	4.0	4.0	4.2	4.3	NA	4.1 (2021)*
Nurses per 1 000 population	7.8	7.7	8.0	8.0	NA	7.9 (2021)
Total consumption of antibacterials for systemic use, daily defined dose per 1 000 inhabitants per day ***	20.2	20.7	16.6	15.8	24.0	19.4 (2022)

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.

consumption in 2021 falling to 76% of the 2019 level (20.7 daily defined doses (DDDs) per 1 000 population). However, in 2022 daily consumption shot up to the highest level it has ever been (24.0 DDDs). According to the Council Recommendation on stepping up EU actions to combat antimicrobial resistance in a One Health approach, Malta is supposed, by 2030, to reduce total consumption of antibiotics in community and hospital settings combined by 18% from the 2019 level.

Malta has implemented several reforms to tackle shortages of health workers. The numbers of doctors and nurses per 1 000 population are near the EU average and have been rising over the last few years. However, Malta relies on foreign nurses, especially in hospitals. In the past, shortages had been exacerbated by an increasing number of nurses leaving Malta to work in other (English-speaking) countries that have offered more attractive working conditions ([108]). In addition, demographic change is estimated to be more severe in Malta than in most other EU countries ([109]). Therefore, having an appropriate number of health workers is even more important to ensure that the health system is accessible and resilient in the long run.

EU funds support substantial investments in healthcare in Malta. Through its national recovery and resilience plan (RRP), Malta plans to invest EUR 48.9 million in healthcare. Investments under the RRP focus mainly on setting up a Blood, Tissue and Cell Centre, digitalisation and new technologies. But there are also measures to tackle some of the above-mentioned challenges, such as workforce-related issues (including a bespoke workforce-planning tool and better integration of foreign health workers) and the prevalence of obesity among children. Complementary investments in healthcare are planned under the cohesion policy funds in 2021-2027. Malta will invest EUR 139 million from the European Regional Development Fund in health equipment, health infrastructure, and e-health services and applications. Malta will also deploy EUR 16 million from the European Social Fund Plus to improve the accessibility, effectiveness and resilience of the health system ([110]).

([108])Malta is facing exodus of nurses to the UK (timesofmalta.com)

([109])Source: https://economy-finance.ec.europa.eu/system/files/2021-10/ip148_en.pdf.

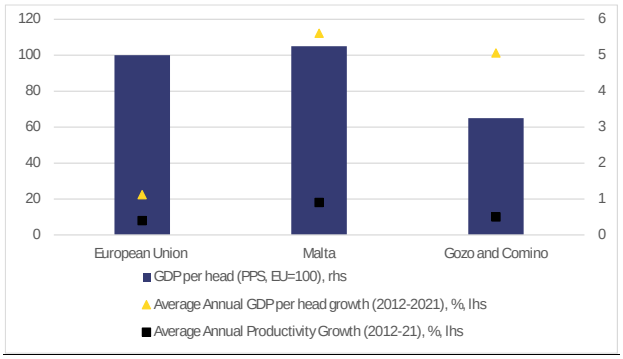
([110])The EU cohesion policy data reflect the status as of 13 May 2024.

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

Overview of economic and social performance at regional level

GDP in Malta continues its path of robust growth, with territorial disparities reducing slightly. Between 2013 and 2022, Malta's GDP average growth climbed to 6.3% (EU 1.6%), compared to 5.0% in 2011-2020 (EU 0.8%). Significant disparities between Malta mainland and Gozo and Comino remained in terms of GDP per capita (in PPS) being respectively 108% and 57% of the EU average in 2022.

Graph A17.1: **Malta, NUTS3: GDP per capita, Average Annual GDP per capita growth, Average Annual Productivity Growth**



Source: Eurostat

Labour productivity in Malta lags behind the rest of the EU, with significant gaps reflecting existing disparities within Malta. In 2022, labour productivity measured in gross value added (in PPS) per person employed was 95.5% of the EU average, varying extensively between the mainland and Gozo and Comino, measuring respectively 97% and 68.4% of the EU average.

Research and innovation systems in Malta continue to suffer from underinvestment. In 2021, R&D expenditure accounted for 0.65% of GDP and only 0.42% in the business sector, with no variation when compared to 2020 levels. This remains significantly below the EU average, respectively 2.24% and 1.48%. Similarly, patent applications to the European Patent Office in 2018-2019 were 93.4 per million inhabitants, which was well below the EU average of 125.6, including a high share of environment-related patents' application.

Investment and subnational reform needs ahead

Stepping up investments in renewable energy remains a high priority. Malta has one of the lowest shares of renewables in gross final energy consumption in the EU. More investments are needed to accelerate the roll-out of renewables in order to meet climate neutrality commitments and in view of the expected rise in electricity demand linked to multiple factors, including rising economic activity, population growth, the gradual transition to electric mobility and shore-to-ship supply. Together with the planned ERDF support for the development of a second electricity interconnector linking Italy and Malta and the deployment of energy storage solutions, those investments will further contribute to securing the supply of electricity and improving Malta's energy mix. In addition, Malta shows a significant wind energy potential with 3 219 full load hours per year as compared to the EU average of 1 153 in 2000-2005, and further investments in wind energy, including in floating offshore wind projects, would be warranted.

Traffic congestion and high emissions from road transport persist in Malta. Increasing sustainable multimodal solutions and active transport is therefore crucial. There is a need to boost investments in safe and interconnected soft mobility infrastructure, such as cycling lanes, pedestrian pathways, improved service quality in public transport and reserved bus lanes. Investments in maritime transport solutions using clean energy is also key. They would create the conditions to move towards green alternative modes of transport while contributing to curbing emissions from the transport sector. This would help Malta in its path towards a better living environment with improved air quality and reduced noise pollution.

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

NUTS region name	GDP per head (PPS)	Productivity (GVA (PPS) per person employed)	GDP growth	GDP per head growth	Employment rate, ages 20-64	Unemployment rate	R&D expenditure	R&D expenditure in the business enterprise sector (BERD)	Patent applications to the EPO	Wind energy potential
	Index, EU27 = 100 (2022)	Index, EU27 = 100 (2022)	Average % change on the preceding year (2013-2022)	Average % change on the preceding year (2013-2022)	% of population aged 20-64 (2022)	% of labour force (2022)	% of GDP (2021)	% of GDP (2021)	per million inhabitants (2018-2019)	full load hours per year (2000-2005)
European Union (27 MS)	100.0	100.0	1.6	1.4	74.6	6.2	2.3	1.5	125.6	1153.0
Malta	104.0	95.5	6.3	3.8	81.1	2.9	0.7	0.4	93.4	3219.0
Malta	108.0	97.0	6.3	3.8					100.2	3291.0
Gozo and Comino/Għawdex u Kemmuna	57.0	68.4	5.6	3.8					0.0	2998.0

Source: Eurostat, EDGAR database

More broadly, it is essential for Malta to progress in its green transition. Scaling-up investments in energy efficiency measures, improving biodiversity protection and boosting waste recycling and the preparation of waste for re-use while reducing landfill rates, are of high importance to address some of the current challenges. Malta could also benefit from the opportunities of the Strategic Technologies for Europe Platform (STEP) to support industry transformation.

For a more effective green transition and a pronounced shift towards green alternative modes of transport, a reform is to be envisaged for a comprehensive and improved transport planning which considers the environmental fragility and space limitations in Malta. Both cohesion policy programmes and the RRP include investments contributing to clean mobility. The reform needs to embrace measures aimed at disincentivising car use and creating space for alternative modes of transports' infrastructure, while making the use of sustainable alternative transport solutions more attractive and efficient.

ANNEX 18: KEY FINANCIAL SECTOR DEVELOPMENTS

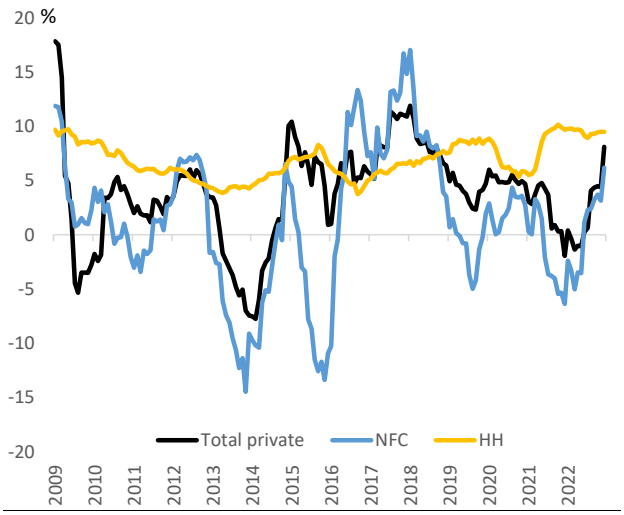
Malta has a predominantly bank-based financial sector, with a high concentration rate. One of Malta's specificities is its role as an international banking centre, as a large share of its banking sector is composed of foreign institutions with no exposure to the domestic economy. However, the share of domestic credit institutions has been increasing over the last decade, and these institutions accounted for an estimated 64.3% of total banking-sector assets in Q3-2023, compared to 33.5% in 2015. The concentration of the banking sector is significant, as the five largest banks held 75.7% of the sector's total assets at the end of 2022. Four Maltese banks are identified as systemically important (O-SII). Total banking-sector assets expressed as a percentage of the country's GDP has continued to decline and stood at 228.4% in Q3-2023, firmly below the EU average.

Banks' performance improved further in the first half of 2023, supported by a favourable economic climate, i.e. a strong rise in GDP and employment. Core domestic banks significantly improved their profitability, supported by 28.9% year-on-year growth in net interest income by June 2023. In addition, the base effect of one-off litigation costs incurred in the first half of 2022 played an important role. As a result, return on equity of the total sector more than doubled to reach 11.2% in Q3-2023, better than the EU average of 9.9%. This marks a significant change, as Maltese banks' return on equity was significantly lagging their EU peers over the previous 5 years.

Maltese banks have maintained their capital levels well above regulatory requirements. The liquidity position of core domestic banks stood at 394.8% in June 2023, an increase of almost 15 pps in 6 months. The capital adequacy ratio stood at 23.8% in Q3-2023 (EU average: 19.6%), 0.1 pps less than in December 2022. Asset quality also improved, as the ratio of non-performing loans (NPLs) declined to 2.2% in Q3-2023, slightly above the EU average of 1.8%. The NPL ratio for core domestic banks stood at 2.6% in June 2023, slightly higher than that of the total banking sector. The highest level of NPLs (around 6.5%) was recorded in loans to domestic non-financial corporations, which is the only segment where NPL ratios have worsened since December 2022. The overall level of Stage 2 loans for core domestic banks dropped in one year by 1.2 pps to 7.8% of total loans in June 2023.

Growth in lending activity was lower than in previous years, and was mainly driven by mortgages. For the domestic core banks, mortgages to residents grew by 3.4% in the 6 months to June 2023 and consumer credit rose by 2.0%. Lending to corporations grew by 3.3%, a slowdown compared to the first 6 months of 2022. Mortgage activity has been the main driver of lending activity in recent years, and mortgages account for just over 55% of total loans to residents, implying some concentration risk. House prices continued to rise in 2023, but started to show some signs of a temporary slowdown. Annual house price growth remained at close to 4.5% in the second quarter of 2023, with a small moderation in the rate of increase starting at the end of 2022. The future path of credit growth depends heavily on economic growth in Malta and the level of interest rates, which might affect credit demand. In order to strengthen banks' resilience to a possible housing-sector shock, the authorities introduced a sectoral systemic risk buffer targeting residential mortgage exposures. This buffer was initially set at 1% from the end of September 2023, and will increase to 1.5% from the end of March 2024.

Graph A18.1: **Evolution of credit activity by sector**



Source: ECB.

The Maltese financial sector appears resilient overall. The European Systemic Risk Board (ESRB) identified in its 2021 report Malta's key vulnerabilities as being high rates of growth in housing credit and high household indebtedness.

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

	2017	2018	2019	2020	2021	2022	2023	EU	Median
Total assets of the banking sector (% of GDP)	402.5	340.5	289.9	302.3	278.5	243.8	230.8	257.9	185.8
Share (total assets) of the five largest banks (%)	80.9	77.5	75.1	74.8	75.6	75.7	-	-	69.6
Share (total assets) of domestic credit institutions (%)[1]	42.1	47.8	53.5	58.7	61.7	64.5	64.3	-	62.9
NFC credit growth (year-on-year % change)	14.8	3.5	2.0	2.7	-6.4	6.1	6.5	-	5.4
HH credit growth (year-on-year % change)	6.5	7.5	8.7	5.8	9.7	9.6	9.1	-	2.5
Financial soundness indicators:[1]									
- non-performing loans (% of total loans)	3.1	3.1	3.2	3.6	3.0	2.3	2.1	1.8	1.7
- capital adequacy ratio (%)	21.1	22.3	23.4	25.1	24.5	23.9	24.3	19.6	20.5
- return on equity (%)[2]	7.2	5.2	6.0	0.3	3.5	4.3	10.2	10.2	13.3
Cost-to-income ratio (%)[1]	40.6	40.5	50.3	49.3	63.8	57.2	46.0	53.2	45.8
Loan-to-deposit ratio (%)[1]	61.4	75.2	57.4	59.6	56.1	58.5	56.7	93.0	79.9
Central bank liquidity as % of liabilities	0.5	0.2	0.1	0.6	2.3	0.7	0.7	-	1.1
Private sector debt (% of GDP)	124.3	120.6	129.3	142.7	132.7	121.8	-	133.0	118.4
Long-term interest rate spread versus Bund (basis points)	96.3	98.9	92.5	99.2	87.3	126.6	128.3	107.9	104.4
Market funding ratio (%)	32.8	32.9	35.7	34.4	37.7	35.4	-	51.8	39.8
Green bonds outstanding to all bonds (%)[3]	-	-	-	-	-	-	-	3.7	2.5

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.

The ESRB's updated report from February 2024 confirmed that the current policy measures (limits on loan-to-value ratios, debt-to-income ratios, and loan maturities, together with the measures allowed by Article 124 of the Capital Requirements Regulation) are appropriate and sufficient.

On anti-money laundering and countering the financing of terrorism, Malta has implemented key reforms in the area of beneficial ownership information and financial intelligence units. These reforms are also part of Malta's commitments under its recovery and resilience plan. Furthermore, Malta updated and published its national risk assessment in December 2023. This 212-page document includes sectoral risk assessments for: (i) the financial services sector; (ii) designated non-financial businesses and professions; and (iii) virtual financial asset service providers.

Sustainable finance is not yet developed in Malta but the first steps to developing it have now been made. Malta's first green bond, issued in August 2023 by the Water Services Corporation, was listed on the Malta Stock Exchange in October 2023. Malta has not yet issued any sovereign green bonds.

Ten domestically relevant insurers continue to operate on healthy capital and liquidity levels. The Central Bank of Malta published in 2023 Interim Financial Stability Report the updated methodology for identifying domestically relevant insurance companies. With these updated results, 10 insurance companies out of 68 licensed in June 2023 were classified as domestically relevant: 4 in the life sector and 6 in the non-life sector (one more compared to the previous methodology)., In the first half of 2023, the assets of these 10 insurers increased by 2.8% y-o-y to EUR 3.7 billion, equivalent to 20.5% of GDP. Total assets held by all insurers in Malta amounted to 74.2% of GDP in Q2-2023, well above the EU average of 54.3%. Insurers in the life segment have strongly increased their capital buffers. Solvency Capital Requirement (SCR) coverage ratio of 226.1%, a recovery of 46 pps since December 2022. The SCR coverage ratio in the non-life segment remains solid at 230.9%. Gross written premiums for life insurers dropped 21.8% y-o-y in December 2023, likely due to competition from other financial products with higher yields.

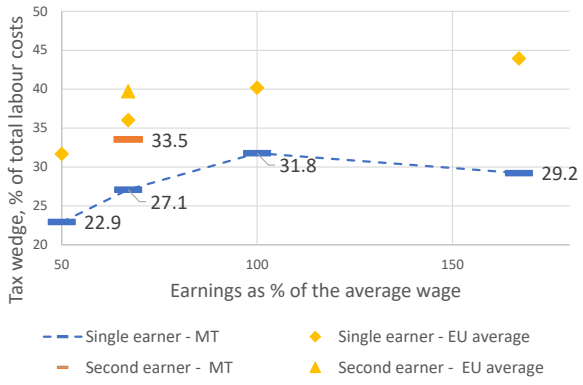
The assets held by 37 investment funds classified as domestically relevant increased by half a per cent in first half of 2023, after an 18-month decline. These assets stood at EUR 1.5 billion, or 8.4% of GDP in June 2023. Equity funds booked the highest rate of increase year-on-year (10.2%), while bond funds shrank 2.2% in the same period, mainly due to redemptions. The level of cash and deposits in June 2023 (at 4% of assets) held by domestically relevant investment funds reached their lowest level since 2016 and was 4 pps below the 5-year average, which may pose some risk in the event of a sudden increase in redemptions. Bonds continue to account for almost two thirds of funds' total assets and their average maturity decreased.

This annex provides an indicator-based overview of Malta's tax system. It includes information on the tax structure (the types of tax that Malta 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.

The taxation system in Malta is rather distinct from the EU average both in terms of the level of taxation and its composition. In particular, tax revenues as a share of Malta's GDP, particularly in relation to labour taxation, are low compared with the EU average. Total tax revenue constituted 29% of Malta's GDP in 2022, a slight decline from 2021 and well below the EU aggregate of 40.2% (see Table A19.1). Labour tax revenues as a share of GDP gradually increased to 12.2% in 2022, but remained substantially below the 20.3% EU average. By contrast, Malta's reliance on corporate taxation has been consistently above the EU average, reflecting the high importance of the corporate sector (measured as the share of gross operating surplus over gross value added) for the Maltese economy. Both consumption tax revenues and environmental taxes as a percentage of GDP remained slightly below the EU aggregate. Pollution and resources taxes as a share of environmental taxes are above the EU average. However, there may be potential to strengthen the application of the polluter pays principle. Malta has implemented three of the six main types of resource and pollution taxes (i.e. taxes on waste landfilling, waste water pollution and plastic products). There remains scope to expand waste disposal taxes (including incineration) and implement the three other types, (i.e. taxes on NOx emissions, fertilisers and pesticides).

The labour tax wedge in Malta is low compared with the EU average across all income levels. The redistributive effect of the tax-benefit system is limited. Graph A19.1 shows that the labour tax wedge for Malta in 2023 was much lower than the EU average for single people at various income levels. Second earners at 67% of the average wage, whose spouses earn the average wage, also face a tax wedge that is below the EU average. Labour income taxation is less progressive in Malta than in the EU average. In fact, at 167% of average income, the tax wedge is lower than for those earning an average wage, which even suggests regressive taxation. The limited progressivity of the labour tax system is also reflected in the fact that the tax and benefit system reduce income inequality (as expressed by the Gini coefficient) to less than the EU average in 2022 (Table A19.1).

Graph A19.1: **Tax wedge for single and second earners as a % 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

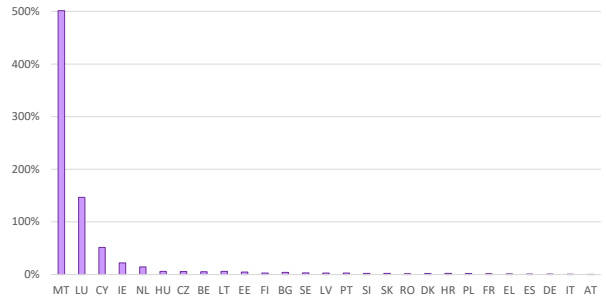
In terms of tax collection, the large VAT gap stands out. Despite levying one of the lowest standard VAT rates in the EU, Malta had the second-highest VAT gap (the gap between revenues actually collected and the theoretical tax liability) in the EU in 2021 at 25.7% – this is over five times more than the EU average and is forecast to decrease only slightly in 2022. It is also remarkable that Malta has not witnessed the steady reduction in the VAT gap that has been a hallmark of the last few years in most Member States. According to a recent study, the cost of tax compliance in Malta is the lowest in the EU ([111]).

The Maltese tax system was recently updated to fulfil the commitments made under the Recovery and Resilience Plan (RRP). The Maltese RRP contains a number of tax-related measures, which are especially aimed at addressing the aggressive tax planning practices identified within the context of the European Semester. Recent reforms adopted within the framework of the RRP implementation include the entry into force of: (i) specific transfer-pricing rules; (ii) a spontaneous exchange of information,

([111])See Figure 18 in *Tax compliance costs for SMEs: An update and a complement*, p. 31, available at Tax compliance costs for SMEs - Publications Office of the EU (europa.eu).

whereby Malta's tax authorities exchange information with the original jurisdictions of tax residence of successful applicants in the citizenship scheme; and (iii) a revised corporate tax return to collect information on dividends derived from bodies of persons resident in non-cooperative jurisdictions. In addition, a dedicated study concerning measures relating to inbound and outbound payments, analysing the state of play and providing recommendations, is expected to be followed up by implementing legislation in 2024.

Graph A19.2: **Total outgoing dividends by Member States in % of GDP, 2022**



Source: European Commission

Despite recent progress, tackling aggressive tax planning remains a priority. Graph A19.2 shows that outgoing dividends flows as a share of GDP are among the highest in the EU. FDI flows as a proportion of GDP as well as their stock held through SPEs are also well above the EU average, which suggests that Malta's tax structure may be being used for aggressive tax planning purposes. The recent reforms linked to the RRP implementation constitute important progress in limiting aggressive tax planning. However, until further action is taken non-domiciled company rules and the absence of withholding taxes (or equivalent defensive measure) continue to pose aggressive tax planning risks. The citizenship and residence scheme also raises serious concerns regarding security, money laundering, tax evasion, and corruption. Since January 2022, Malta has allowed the spontaneous exchange of information on successful applicants of the citizenship scheme with the authorities of the applicants' original jurisdiction of tax residence, in line with its RRP commitment, but this is limited to new applicants.

Table A19.1:**Taxation indicators**

		Malta					EU-27				
		2010	2020	2021	2022	2023	2010	2020	2021	2022	2023
Tax structure	Total taxes (including compulsory actual social contributions) (% of GDP)	30.9	29.0	29.4	29.0		37.9	40.0	40.4	40.2	
	Labour taxes (as % of GDP)	9.9	12.0	12.0	12.2		20.0	21.3	20.7	20.3	
	Consumption taxes (as % of GDP)	11.9	10.1	9.8	9.9		10.8	10.7	11.2	11.0	
	Capital taxes (as % of GDP)	9.1	6.9	7.5	6.6		7.1	8.0	8.6	8.9	
	Of which, on income of corporations (as % of GDP)	5.6	4.6	5.1	4.3		2.4	2.5	3.0	3.4	
	Total property taxes (as % of GDP)	1.0	0.7	0.8	0.8		1.9	2.3	2.2	2.1	
	Recurrent taxes on immovable property (as % of GDP)	0.0	0.0	0.0	0.0		1.1	1.2	1.1	1.0	
	Environmental taxes as % of GDP	2.8	2.2	1.8	1.6		2.4	2.2	2.3	2.0	
Progressivity & fairness	Tax wedge at 50% of average wage (Single person) (*)	18.9	22.4	21.7	22.6	22.9	33.9	31.7	32.1	31.8	31.7
	Tax wedge at 100% of average wage (Single person) (*)	26.4	31.0	30.8	31.5	31.8	41.0	40.1	39.9	40.0	40.2
	Corporate income tax - effective average tax rates (1) (*)		28.8	28.8	28.8			19.5	19.0	19.0	
	Difference in Gini coefficient before and after taxes and cash social transfers (pensions excluded from social transfers) (2) (*)	7.2	6.3	6.2	6.3		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 %) (*)		174.9	140.0				40.9	35.5		
	VAT Gap (% of VAT total tax liability, VTTL)(**)	30.9	27.5	25.7	24.6			9.7	5.4		

(1) (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

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)	2.7	2.5	5.2	12.5	8.1	5.6	4.6	4.3
Potential growth (y-o-y)	.	3.2	6.6	3.9	6.7	5.1	4.9	4.9
Private consumption (y-o-y)	2.8	1.3	2.2	8.2	10.9	7.7	4.3	4.0
Public consumption (y-o-y)	1.0	3.3	6.5	6.8	1.9	3.3	3.0	2.7
Gross fixed capital formation (y-o-y)	6.2	-1.3	8.9	14.2	31.4	-22.2	4.5	4.5
Exports of goods and services (y-o-y)	7.7	7.4	7.4	7.6	8.6	8.7	4.3	3.8
Imports of goods and services (y-o-y)	7.7	6.3	7.4	5.1	11.7	4.6	4.0	3.4
Contribution to GDP growth:								
Domestic demand (y-o-y)	3.3	1.2	3.9	7.7	11.3	-1.7	3.2	3.0
Inventories (y-o-y)	-0.3	-0.2	0.3	-0.3	-0.1	0.0	0.1	0.0
Net exports (y-o-y)	-0.5	1.5	1.0	5.1	-3.1	7.3	1.3	1.3
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	.	0.7	3.2	0.7	2.4	2.4	2.3	2.3
Capital accumulation (y-o-y)	.	1.0	1.7	1.5	2.6	1.1	1.1	1.2
Total factor productivity (y-o-y)	.	1.5	1.7	1.7	1.7	1.6	1.5	1.4
Output gap	-0.1	-1.2	0.8	-1.8	-0.5	0.0	-0.3	-0.9
Unemployment rate	6.9	6.5	4.7	3.8	3.5	3.1	3.0	2.9
GDP deflator (y-o-y)	2.1	2.3	2.3	2.0	5.3	5.3	3.6	2.5
Harmonised index of consumer prices (HICP, y-o-y)	2.1	2.9	1.2	0.7	6.1	5.6	2.8	2.3
HICP excluding energy and unprocessed food (y-o-y)	1.8	2.1	1.3	0.7	6.2	5.8	2.9	2.5
Nominal compensation per employee (y-o-y)	2.9	3.3	3.4	4.1	3.1	1.5	2.7	3.2
Labour productivity (real, hours worked, y-o-y)	1.6	1.8	0.6	9.2	4.1	1.4	-0.6	-0.5
Unit labour costs (ULC, whole economy, y-o-y)	1.6	2.7	3.4	-4.8	1.1	2.4	2.2	2.9
Real unit labour costs (y-o-y)	-0.5	0.4	1.0	-6.7	-3.9	-2.7	-1.4	0.3
Real effective exchange rate (ULC, y-o-y)	0.3	0.7	1.8	-4.9	-2.5	-4.2	-2.2	0.4
Real effective exchange rate (HICP, y-o-y)	1.4	-0.2	0.1	-0.8	-2.7	1.9	.	.
Net savings rate of households (net saving as percentage of net disposable income)	.	.	.	.	.	.	.	.
Private credit flow, consolidated (% of GDP)	12.2	9.8	8.0	8.8	6.3	.	.	.
Private sector debt, consolidated (% of GDP)	140.0	163.7	131.8	132.5	120.3	.	.	.
of which household debt, consolidated (% of GDP)	46.8	57.7	52.2	58.4	55.0	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	93.2	106.0	79.6	74.1	65.3	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (1)	1.7	1.6	2.5	2.3	1.7	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	.	.	.	.	.	.	.	.
Corporations, gross operating surplus (% of GDP)	29.4	31.3	36.7	40.3	41.4	.	.	.
Households, net lending (+) or net borrowing (-) (% of GDP)	.	.	.	.	.	.	.	.
Deflated house price index (y-o-y)	13.5	-0.9	3.7	3.8	1.2	-0.4	.	.
Residential investment (% of GDP)	7.4	4.1	3.7	4.4	4.1	3.8	.	.
Current account balance (% of GDP), balance of payments	-5.3	-3.8	4.0	5.9	-3.9	0.9	0.0	0.2
Trade balance (% of GDP), balance of payments	-1.6	1.4	14.5	19.9	11.4	16.1	.	.
Terms of trade of goods and services (y-o-y)	-0.1	0.0	0.5	0.1	-0.1	0.3	0.3	0.0
Capital account balance (% of GDP)	2.3	1.3	1.2	1.5	1.5	1.5	.	.
Net international investment position (% of GDP)	30.6	10.7	67.2	98.4	83.3	71.6	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (2)	86.8	168.7	184.5	173.8	165.6	160.6	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (2)	452.3	698.9	504.4	513.5	434.7	427.8	.	.
Export performance vs. advanced countries (% change over 5 years)	.	.	15.6	15.3	6.8	20.1	.	.
Export market share, goods and services (y-o-y)	-0.7	2.3	6.1	-10.2	-6.1	7.5	0.7	0.1
Net FDI flows (% of GDP)	-154.7	-77.5	-63.5	-74.5	-0.4	-12.3	.	.
General government balance (% of GDP)	-2.9	-3.2	-0.7	-7.6	-5.5	-4.9	-4.3	-3.9
Structural budget balance (% of GDP)	.	.	-1.1	-6.7	-5.3	-4.9	-4.2	-3.5
General government gross debt (% of GDP)	66.8	66.1	50.9	53.9	51.6	50.4	52.0	52.6

(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 Malta 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. The Commission's early-detection indicator (S0) does not point to short-term fiscal risks (Table A21.2) ([112]). Government gross financing needs are expected to increase around 11% of GDP on average over 2024--2025 (Table A21.1, Table 1). Financial markets' perceptions of sovereign risk remain positive, as confirmed by the CDS spread and the medium-grade 'A2/A-/A+' rating that the three major rating agencies assigned to Maltese government debt.

2 – Medium-term fiscal sustainability risks appear medium.

The DSA baseline shows that the government debt ratio is expected to increase slightly but remain below 60% of GDP in the medium term (at around 56% of GDP in 2034) (Graph 1, Table 1) ([113]). The assumed structural primary deficit (excluding changes in cost of ageing) of 2.9% of GDP as of 2024 appears plausible compared to past fiscal performance (Table A21.2) ([114]).The debt decline also benefits from a still favourable but declining snowball effect, notably thanks to the impact of Next Generation EU. Finally, government gross financing needs are expected to stabilise by the end of the projection period in 2034, reaching around 11% of GDP, i.e. close to the average over 2024-2025.

The baseline projections are stress-tested against four alternative deterministic scenarios to assess the impact of changes in key assumptions relative to the baseline (Graph 1). For Malta, the debt ratio would be lower than under the baseline only under the *historical structural primary balance (SPB) scenario* (i.e. the SPB returns to its historical 15-year average of -0.2% of GDP). Under this scenario, the debt ratio is about 19 pps. of GDP higher than the baseline in 2034. Otherwise, all the other stress test scenarios would lead to higher debt compared to the baseline, with similar adverse developments under the *lower structural primary balance scenario* (i.e. the projected cumulative improvement in the SPB over 2023-2024 is halved) and under the *adverse interest-growth rate differential scenario* (i.e. the *interest-growth rate* deteriorates by 1 pp. compared with the baseline). Under both scenarios, the debt ratio that would be higher than under the baseline by around 4 pps. of GDP in 2034. The smallest adverse impact is projected under the *financial stress scenario* (i.e. interest rates temporarily increase by 1 pp. compared with the baseline), where the debt ratio would only be marginally higher than under the baseline.

The stochastic projections indicate medium risk, pointing to the low sensitivity of these projections to plausible unforeseen events ([115]). These stochastic simulations indicate about 59% probability that the debt ratio will be higher in 2028 than in 2023, implying low risks given the current low debt level. In addition, the uncertainty surrounding the baseline debt projections is moderate, as measured by the difference between the 10th and 90th debt distribution percentiles in five years' time (Graph 2).

([112])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.

([113])The assumptions underlying the Commission's 'no-fiscal policy change' baseline include in particular: (i) a structural primary surplus, before changes in ageing costs, of 2.9% 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 4.5%); (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).

([114])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 2022.

([115])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 appear overall high. This assessment is based on the combination of two fiscal gap indicators, capturing the required fiscal effort to stabilise debt (S2 indicator) and bring to 60% of GDP (S1 indicator) over the long term ([116]). This assessment is driven mostly by the projected increase in ageing costs and the unfavourable initial budgetary position. These results are conditional on the country maintaining a sizeable SPB over the long term.

The S2 indicator points to high fiscal sustainability risks. The indicator shows that, relative to the baseline, the SPB could relax its fiscal position by 1.5 pps. of GDP in 2025 and still ensure debt stabilisation over the long term. This result is driven by the projected increase in ageing-related costs (contribution of 6.3 pps. of GDP) and the unfavourable initial budgetary position (3.2 pps.). Ageing costs' developments are primarily driven by the projected increase in pensions (3.1 pps.) as well as health care and long-term care spending (together 3.3 pps.) (Table A21.1, Table 2). While a number of measures to improve the efficiency of the health care system are being implemented, additional measures may be required to improve the efficiency of the Maltese long-term care system and its fiscal sustainability.

The S1 indicator points to medium fiscal sustainability risks. The indicator shows that the country would need to improve its fiscal position by 4.6 pps. of GDP to bring debt to 60% of GDP by 2070. This result is mainly driven by the unfavourable initial budgetary position (contribution of 2.7 pps. of GDP) and the increase in the ageing-related public expenditure (contribution of 2.1 pps.) (Table A21.1, Table 2).

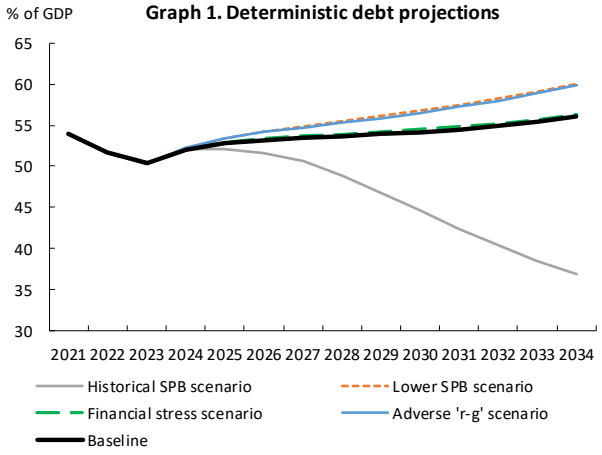
4 – Finally, several additional risk factors need to be considered in the assessment. On the one hand, risk-increasing factors are related to the large share of short-term debt. On the other hand, risk-mitigating factors include, Malta's positive international investment position, a high share of domestically-held debt, and a sharp decrease in both gross and net debt ratios between 2010 and 2022. In addition, the structural reforms under the NextGenerationEU (NGEU)/Recovery and Resilience Facility (RRF), if fully implemented, could have a further positive impact on GDP growth in the coming years, and therefore help to mitigate debt sustainability challenges.

([116])The S2 fiscal sustainability indicator measures the permanent SPB adjustment in 2025 that would be required to stabilise public debt in the long term. It is complemented by the S1 indicator, which measures the permanent SPB adjustment in 2025 to bring the debt ratio to 60% by 2070. 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 - Malta**

Table 1. Baseline debt projections	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gross debt ratio (% of GDP)	**53.9**	**51.6**	**50.4**	**52.0**	**52.8**	**53.2**	**53.4**	**53.7**	**53.9**	**54.2**	**54.5**	**54.9**	**55.4**	**56.0**
Changes in the ratio	1.7	-2.3	-1.2	1.6	0.8	0.4	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.6
of which														
Primary deficit	6.5	4.6	3.8	3.1	3.0	2.7	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2
Snowball effect	-5.6	-5.6	-4.1	-2.6	-2.3	-2.3	-2.3	-2.2	-2.1	-2.0	-1.9	-1.8	-1.7	-1.5
Stock-flow adjustments	0.8	-1.3	-0.9	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs (% of GDP)	15.2	8.6	9.7	11.2	10.3	10.1	10.1	10.1	10.2	10.2	10.3	10.4	10.6	10.7

Graph 1. Deterministic debt projections



Graph 2. Stochastic debt projections 2024-2028

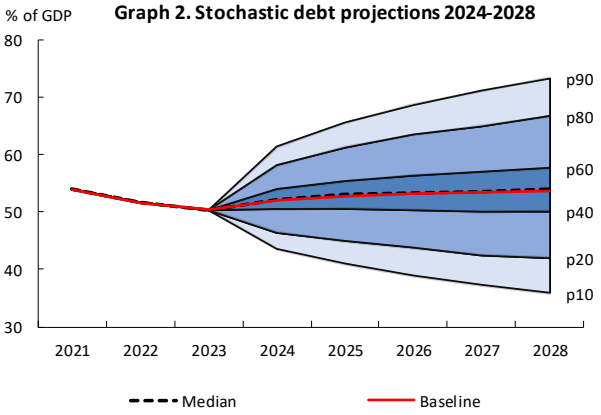


Table 2. Breakdown of the S1 and S2 sustainability gap indicators

		S1	S2
Overall index (pps. of GDP)		**4.6**	**9.6**
of which			
Initial budgetary position		2.7	3.2
Debt requirement		-0.2	
Ageing costs		2.1	6.3
of which	*Pensions*	0.8	3.1
	Health care	0.8	1.6
	Long-term care	0.8	1.7
	Education	-0.3	-0.1

Source: Commission services.

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

Short term	Medium term - Debt sustainability analysis (DSA)								Long term		
Overall (S0)	Overall		Deterministic scenarios					Stochastic projections	S2	S1	Overall (S1+S2)
			Baseline	Historical SPB	Lower SPB	Adverse 'r-g'	Financial stress				
LOW	MEDIUM	Overall	LOW	LOW	MEDIUM	LOW	LOW	MEDIUM	HIGH	MEDIUM	HIGH
		Debt level (2034), % GDP	56.0	36.9	60.0	59.9	56.3				
		Debt peak year	2034	2025	2034	2034	2034				
		Fiscal consolidation space	72%	54%	78%	72%	72%				
		Probability of debt ratio exceeding in 2028 its 2023 level						59%			
		Difference between 90th and 10th percentiles (pps. GDP)						37.4			

(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

Source: Commission services.