

Digital public services in the National Recovery and Resilience Plans

SUMMARY

The Recovery and Resilience Facility (RRF) is the main element of the EU's innovative financing instrument, Next Generation EU (NGEU), established with the aim to drive the EU's post-pandemic economic recovery towards a resilient future. The RRF is a performance-based instrument from which Member States can receive funds once they have met prior commitments (milestones and targets). The funds help the Member States make the reforms and investments they have envisaged under their dedicated national recovery and resilience plans (NRRPs).

Digital transformation is one of the six policy areas around which the RRF is built. Given its high priority for the EU, each national plan has to allocate at least 20 % of its resources to digital targets. The funds are meant to complement financing from the EU budget and national budgets and help achieve the EU's digital objectives by 2030. This briefing focuses on the digital measures that address one of the four cross-cutting strategic EU priorities: the digitalisation of public services (the other three being digital skills, digital infrastructure and digital transformation of businesses).

All NRRPs acknowledge that the digital transformation of government is key to the success of the single market and the most efficient way to provide faster, cheaper and better services. Therefore, they include measures on digital public services – worth roughly €46.5 billion in total (excluding the Netherlands and Hungary) – tailored to each country's context. The COVID-19 crisis highlighted the importance of digitalising public services, but the goal here extends far beyond this crisis. It involves creating a modern, transparent and efficient public administration that applies less costly and time-consuming administrative processes and provides a supportive environment for businesses in the long run. According to the Commission, the relevant measures in the NRRPs can make a lasting impact on the Member States' economies and societies through the structural changes they would bring to their administrations, institutions and policies.

The measures in the plans are aligned with the EU's digital commitments under the eGovernment action plan, the 2017 Tallinn Declaration on eGovernment and the Berlin Declaration on Digital Society and Value-based Digital Government, and with the European flagship 'Modernise' (digitalisation of the public administration), which is included in the 2021 annual sustainable growth strategy.



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Introduction

Digitalising public services is an <u>EU objective</u> dating from before the coronavirus pandemic, whose relevance was accentuated by the challenges it presented. Today, governments' digital transformation remains a <u>top EU priority</u>. Digital interactions save time and cut red tape for the public sector, businesses and citizens, and boost efficiency and productivity. The digital transition is expected to lead to greater interoperability of public services within and between organisations both nationally and across the EU, as well as improve the quality of service and contribute to a faster and smoother recovery.

In 2021, the European Commission <u>declared</u> the period from 2020 to 2030 the EU's '<u>digital decade</u>'; to this end, it set strategic digital objectives in <u>four broad areas for action</u>: digital skills, digital infrastructure, digital transformation of businesses, and the digitalisation of public services. In 2022, the European Parliament and the Council of the EU reached a provisional <u>agreement</u> on the proposed 'Path to the digital decade' policy programme, which established a governance and funding framework to help achieve the 2030 digital decade targets. To meet the relevant <u>targets</u>¹ on digital public services, by 2030 the EU would have to provide all key public services online, ensure that all citizens have access to their medical e-records, and enable 80 % of citizens to use a digital ID solution. The Commission highlights that the EU 'must harness digitalisation to drive a paradigm change in how citizens, public administrations and democratic institutions interact, ensuring interoperability across all levels of government and across public services'. However, it also acknowledges the obstacles on the path to this vision, with services provided online often being basic (e.g. filling in offorms).

The Commission's 2021 proposal on updating the European digital identity framework is a steptowards meeting the above targets. It aims to make a shift from relying on national digital identity solutions only, to providing electronic attestations of attributes valid at the EU level (through a personalised European digital identity wallet²). As Member States are currently not required to develop a national digital ID and make it interoperable with those of other Member States, this situation may lead to discrepancies. The Commission will support the implementation of the European digital identity framework through the 'Digital Europe' programme, but many Member States have incorporated projects for e-government solutions, including the European digital identity, in their NRRPs under the Recovery and Resilience Facility. Thus, the RRF, alongside the EU budget and the national budgets, is among the tools to address this digital challenge.

Digital transformation in the Recovery and Resilience Facility

The <u>RRF</u> is a temporary instrument intended to drive the EU's economic recovery. Its funds have to be committed between 2021 and 2023, and all financed measures have to be completed by the end of 2026. To use RRF resources, all Member States have drafted their individual NRRPs. Each includes a coherent package of investments and reforms, taking into account the 2019 and 2020 country-specific recommendations of the European Semester and addressing issues of EU relevance, with special emphasis on the twin green and digital transition.

Digital transformation is integral to the EU's economic recovery and is one of the six pillars³ of the RRF. Member States have to allocate at least 20% of their RRF resources to digital measures. To calculate the 20% mark, Annex VII of the <u>RRF Regulation</u> sets out the <u>methodology for digital tagging</u>. It includes seven digital policy dimensions based on the Digital Economy and Society Index (<u>DESI</u>): 1) connectivity; 2) digital-related investment in R&D; 3) human capital; 4) e-government, digital public administration, and the local digital ecosystems; 5) digitalisation of businesses; 6) investment in digital capacities and deployment of advanced technologies; and 7) greening the digital sector.

The focus of this briefing is the <u>fourth intervention field</u> covering e-government and digital public services. Based on the Commission's <u>guidance</u> on elaborating the NRRPs, this field broadly includes investments and reforms aimed at: modernising public administrations using key digital enablers; deploying e-ID for public and private use; ensuring cross-border interoperability of services; ensuring legal, organisational and technical interoperability between central, regional and local administrations; and improving decision-making and public services using advanced digital technologies, including

e-ID, high-performance computing, and artificial intelligence (AI). Investment should aim to improve the competitiveness, resilience and security of public bodies, while ensuring inclusiveness. Reforms can include amending legislation to reflect the shift to digital and creating the conditions for implementing the <u>once-only principle</u> in the public administration, where data are presented only once to public bodies and exchanged among them when needed again. Measures aimed at digitalising the health, transport, justice and energy systems also fall under this category and are widespread in the NRRPs, but are not tackled in this briefing.

Supplementing the RRF Regulation, <u>Delegated Regulation (EU) 2021/2106</u> introduces 14 common indicators to measure progress towards specific objectives, to be reflected in the <u>Recovery and</u> <u>Resilience Scoreboard</u>. The <u>7th indicator</u> 'Users of new and upgraded public digital services, products and processes' measures the number of users of the digital public services, products and processes that have been either newly developed or significantly upgraded through RRF-funded measures.

Furthermore, the Commission's <u>annual sustainable growth strategy 2021</u> identifies common EU challenges grouped in seven European flagships, encouraging Member States to address them in the NRRPs. Measures related to digital public services in the NRRPs widely align with the relevant flagship 'Modernise'.⁴ The latter envisages that by 2025, a European e-ID is to be created and public administrations are to provide interoperable, personalised and user-friendly digital public services, accessible to all.

Digital Economy and Society Index (DESI)

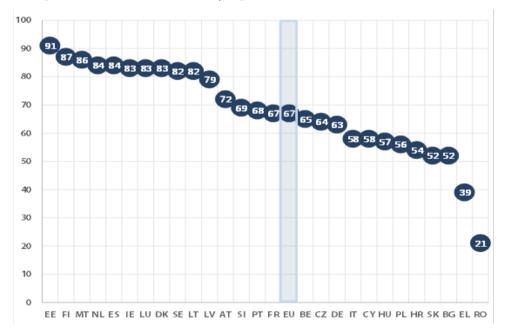


Figure 1 – Digital Public Services Index | e-government

Source: DESI, 2022.

The composite Digital Economy and Society Index (DESI) describes the state of play as regards digital performance in the EU across several dimensions. One key area is digital public services (Figure 1), corresponding to the RRF's <u>fourth intervention field</u>. To measure it, a number of indicators are being considered, such as e-government users; pre-filled forms; digital public services for citizens and businesses; commitment to <u>open data</u>; use of eIDs; and the <u>eGovernment Benchmark</u>.⁵ Some Member States are already close to the digital decade's target of having all key public services fully online by 2030. However, progress is uneven across and within countries. While some are top performers (in 2022, Estonia, Finland, and Malta), others have significant shortcomings to address (Romania, Greece and Bulgaria).

RRF implementation reports and thematic analysis

The NRRPs' implementation is under way and the Commission has already published two reports to track its progress. In its first <u>annual report</u> from March 2022, as well as in the subsequent July 2022 <u>review report</u>, the Commission notes that the estimated cost of planned investments and reforms supporting the digitalisation of public services and e-government (including e-health, e-justice and digitalising the transport and energy systems) accounts for over a third (around 36%) of RRF-funded overall digital expenditure for the 25 adopted NRRPs (by July 2022). As the <u>DESI 2022 report</u> also notes, the largest part of the funds dedicated to this intervention field would benefite-government, electronic identification (eID) and e-justice, followed by e-health.

Apart from its reports, the Commission has also published a thematic analysis on <u>digital public services</u> in the NRRPs. This analysis explains the scope of the category and its different dimensions (e.g. e-government, e-health and e-justice), and lays out the multiple advantages of digital public services. Effective e-government is perceived as bringing benefits such as efficiency, productivity gains for all parties involved, accessibility, transparency and openness. Secure electronic identification has an important role to play in this context, as it can guarantee the unambiguous identification of a person and ensure the right service is delivered to the person entitled to it. The analysis finds that accelerating the digitalisation of public services is crucial for the economic recovery. It acknowledges the transformative impact of digital technologies on healthcare services, justice systems, the transport and the energy sectors. At the same time, it notes that harnessing its full potential poses a key challenge for public authorities.

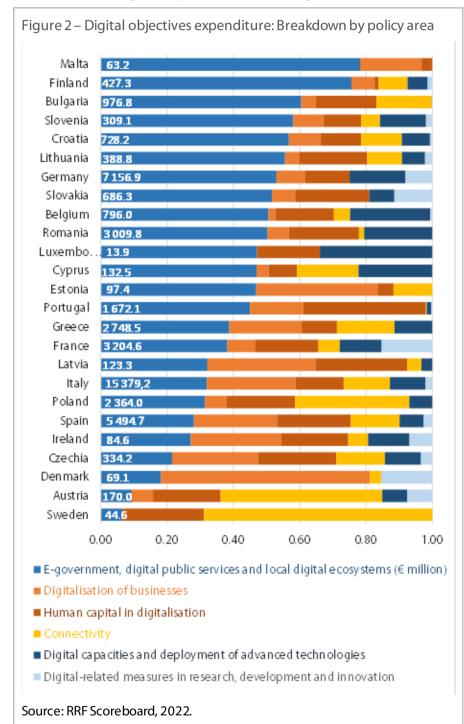
Key deliverables through which the implementation of these measures is to be tracked include, for example, the number of new digital identity cards produced and in circulation, entry in force of interoperability laws aligned with the <u>European Interoperability Framework</u>, and the number of public institutions fully using the Government Cloud.

National Recovery and Resilience Plans: Relevant measures

In its assessments of the NRRPs, the Commission acknowledges that Member States have taken a 'broad, cross-cutting approach' in addressing the digital challenges. Most plans have a component dedicated to digitalising public administration, but some measures also fall under components that address health care, justice and other areas. The wide-ranging efficiency gains resulting from the digitalisation of the public administration are expected to have a lasting impact beyond the lifetime of the RRF. The assessments note that actions put forward in the plans are coherent with the relevant national strategies and plans in the digital domain. Investments in the digital government commitments under the <u>Berlin Declaration</u> on Digital Society and Value-based Digital Government. The measures are also aligned with a number of other EU initiatives relevant to digital policy.⁶ Finally, they are assessed as widely contributing to addressing related country-specific recommendations, for example, on improving the business environment by reducing the administrative and regulatory burden for investments and incentivising entrepreneurs.

While measures on e-government and digital public services figure prominently across the NRRPs, the focus in the individual plans differs based on the countries' specific context, needs and level of digital performance in this area. The low offer of digital public services is a digital challenge for Bulgaria; Belgium performs below its potential as far as the offer of digital services to citizens is concerned; in Estonia, all central government services are accessible online. The NRRPs reflect this diversity through the amount of funds allocated to specific measures. Figure 2 shows the breakdown of the digital resources per digital category. For example, the Commission notes that the digital dimension is <u>somewhat less pronounced</u> in the Danish NRRP, due to its overall top digital performance. Austria, a traditional 'front-runner in federal e-government services', scoring above the EU average in providing digital public services to its population, <u>allocates</u> 52.8% of its RRF funds to digital objectives as a whole. Germany, qualified by the assessment as a 'medium performer' in digitalisation, allocates 52.6% of its

RRF resources to this domain, and half of this amount (or more than one quarter of the plan's total budget) to the digitalisation of public services in particular. Overall, even countries ranked in leading positions, such as Estonia and Malta, include measures designed to further consolidate their performance in the area of digital public services. Annex I of this briefing gives an overview of the top investment measure per Member State in this category, while Annex II gives a snapshot of Member States' efforts to digitalise public services through the RRF resources.



investments of and reforms that aim to modernise administrative processes and improve their efficiency while ensuring better quality accessibility. and wide Based on the digital tagging methodology, their overall worth for all NRRPs, excluding the Netherlands and Hungary, is around €46.5 billion. The broadly investments envisage tackling the fragmentation and lack of interoperability in the public administration by means of digitalising the infrastructure, improving the efficiency in the public use of IT resources, digitalising key workflows in some central government services, introducing advanced data analytics to support data-driven decisionmaking in the public administration, as well as enhancing the cybersecurity of the information critical systems. Some of the NRRPs also include aimed measures at modernising the working environment of the public sector employees and improve their skills. Most

The NRRPs present a mix

reform measures aim to update the national legal frameworks so as to address the remaining gaps in the shift to digital, adopt and implement relevant strategies, including enabling the implementation of the 'once-only' principle (as mentioned above), as well as integrate eID solutions in government processes.

While developing new e-services is considered necessary and has been planned for, the (s)low uptake of existing ones is a challenge for many Member States, including those scoring above the EU average in terms of digitalised public services. One way to address this is by facilitating trusted **electronic** identification, which ensures secure access to digital services and enables electronic transactions in a safe way not only nationally but also across the EU. Currently, 14 Member States use 19 digital identification systems. Portugal, for example, is among the 14EU countries with national eID schemes recognised by the other Member States. Croatia's notification of its eID scheme in 2018 (a pre-condition for the cross-border recognition of national eIDs) allows personal identity card holders to access a range of cross-border public services. In addition, Croatia's NRRP envisages an investment to enable users of e-IDs to sign documents on mobile platforms. Cyprus is developing its national eID scheme but has not vet notified it to the Commission, whereas eID and electronic signatures are facing delays in Bulgaria. The Commission notes that France performs below the EU average on cross-border eID services. Its NRRP aims to support e-identity deployment and deliver up to 12.5 million national digital identity cards in 2023, as well as develop an application for online authentication (through electronic title chips) for the holder. In its NRRP, Italy plans to scale up the adoption of the National Digital Identity platforms (SPID, CIE) and the national registry, targeting an increase both in the number of citizens with valid digital identities on the national digital identity platform and in the number of public administrations adopting eID. Romania's NRRP includes an investment aiming to support the transition to and adoption of the e-ID card by the Romanian citizens, with a quantitative target of delivering 8.5 million e-ID cards during the NRRP's implementation (by the end of June 2026). In Germany, the Commission notes that the low usability of Germany's elD solution (national identity card) is one of the main obstacles for citizens, which hampers the use of public services.

Another set of measures present in many of the NRRPs relate to the objective of developing and stepping up **cloud adoption in the public sector**. Government clouds to be set up in some Member States are expected to simplify and speed up interaction with public authorities while ensuring more security for sensitive data. Italy's plan includes a €1.9 billion investment in building a secure national cloud infrastructure for the public administration (called 'Polo Strategico Nazionale') and the migration of the local and central public administration's IT systems to a cloud-based system. A key investment in Latvia's NRRP envisages the establishment of the 'National Federal Cloud', thus providing shared computing and data management infrastructure and its services for the public administration. One of Romania's key investments is in building a government cloud. Croatia plans a significant investment to expand the capacity of the State cloud (Shared Services Centre, 'CDU') to enable a large increase in the number of users and upgrade it with the development of new functionalities. Malta envisages investing in a cloud-based infrastructure for the merchant shipping sector; Cyprus envisages developing a government cloud.

A number of measures in the NRRPs target the **fragmentation** and the **lack of** <u>interoperability</u> within the public administration. In Austria, the federal administration's departments often use different data centres, software, hardware and service providers. This heterogeneity leads to burdensome processes and unnecessary costs as well as failing to ensure comparable quality. One of Austria's top three digital investments addresses it through a number of projects. Croatia will set up a central interoperable register for public administrations to overcome the fragmentation caused by the use of multiple registers. Czechia plans to develop the back-end infrastructure to link multiple public administration IT systems and the core registers, thus facilitating data exchange. Slovakia's investment entitled 'Better services for citizens and businesses' aims to deploy integrated user-friendly e-government solutions for 16 priority life situations, which currently involve interactions with multiple public entities, are digitalised to a varying degree and use different IT systems. Priority life situations are to be selected from the corresponding list monitored by the <u>eGovernment benchmark</u> and taking into account the life situations included in AnnexII of the Single Digital Gateway <u>Regulation</u>.

All NRRPs include a number of measures aimed at **digitalising key central government services**. The Netherlands, for example, envisages a large-scale programme to renew the IT infrastructure of the

Ministry of Defence. Cyprus targets <u>certain police services</u> through a new 'Digipol' platform, as well as digitalising key processes carried out in the Cyprus Ports Authority. Belgium also targets digitalisation of several federal public administrations, including the justice system, the Federal Employment Agency, the Ministry of Foreign Affairs, and asylum and immigration processes. A key investment in Luxembourg will be for digitalising the Agency for the Development of Employment.

Expanding e-procurement is an objective included in a number of NRRPs, such as those of Belgium, Romania, Slovakia and Spain. Digitalisation of **paper registries** projects are envisaged by Bulgaria and Greece. Many NRRPs specifically target **modernising the public sector work environment**, including processes, skills and equipment. Belgium plans to create a hybrid workplace of the future for Flemish officials, whereas French civil servants will benefit from a Public Agent Digital Backpack Fund that would modernise their workstations. Portugal envisages implementing new working models for civil servants, such as teleworking. Latvia and Slovenia plan to improve the digital skills of public sector employees, while Finland envisages cybersecurity-related training for public officials in particular. As regards **cybersecurity**, it is a highlight in a number of plans, given that disruption of public services could be very detrimental. France will aim to strengthening cybersecurity of state services; Greece plans to develop a new cybersecurity strategy; and Italy envisages the creation of a National Cyber Security Agency.

Maximising **access to online services**, especially in rural and remote areas, also features in a number of NRRPs. The Portuguese NRRP includes measures for the digitalisation of public services in Madeira and Azores, providing the autonomous regions' public administration with the necessary infrastructure, tools, interoperability of services and knowhow. Bulgaria's NRRP envisages modernising the Bulgarian Post to ensure the provision of administrative and e-government services with manned assistance in all 2 100 postal offices in remote and rural areas where the public administration is not present.

European Parliament

The European Parliament has continuously focused on digital matters, and advocated modernising EU policies to maximise the digitalisation of the EU services sectors. In its 2021 resolution on shaping Europe's digital future, it calls for removing barriers to the functioning of the digital single market, and for wider coordination of NGEU investment to reflect the EU's ambition of becoming a global technological leader. In its 2022 resolution on the RRF's implementation, Parliament welcomed the NRRPs' strong focus on supporting the digitalisation of public services. In 2021, a Parliament pilot project on fostering the digitalisation of the public sector was agreed upon; it was launched with the aim of supporting public administrations in adopting cost-effective and flexible digital solutions. Parliament's Committee on the Internal Market and Consumer Protection (IMCO) organised a public hearing and requested a study that explored insights into the digitalisation of the public sector. Currently, the IMCO committee is working on a topical own-initiative report on eGovernment, expected to be adopted in the spring of 2023. The draft report calls for creation of a European digital identity and urges Member States to redouble efforts to further digitalise public services so as to ensure that the modern public administration is fit for the digital age and to protect personal data. The Committee on Industry, Research and Energy (ITRE) has drafted a report on the Commission proposal for a regulation establishing a framework for a European Digital Identity. The draft report proposes significant changes to the proposed regulation, particularly regarding the European digital identity wallet. The main changes concern expanding its use, reinforcing privacy and security, as well as reinforcing the implementation of the 'once-only' principle and cross border user identification. The ITRE committee also drafted a report on the Commission proposal for establishing the 'Path to the Digital Decade' programme 2030; the report puts emphasis on strengthening fundamental rights, transparency and security, and on promoting digital skills. Among other things, during negotiations with the Council, Parliament ensured that it would play a strong scrutiny role in the process of achieving the digital targets by 2030. Parliament discussed the ITRE report in the November II 2022 plenary session and adopted the Digital decade 2030 roadmap with a resolution.

Parliament's <u>involvement</u> is key for ensuring transparency and scrutiny of the RRF's implementation. Based on the RRF Regulation and the Interinstitutional Agreement on cooperation on budgetary matters, Parliament <u>scrutinises</u> the Commission's work, relying on its regular reporting. Its scrutiny role over NGEU spending stems from its competences as one arm of the budgetary authority, and from its involvement in the dialogue on the European Semester. Parliament takes part in interinstitutional meetings on the implementation of NGEU and a recovery and resilience dialogue with the Commission. The main committees in charge are the Committees on Budgets and on Economic and Monetary Affairs, but others are involved on various aspects of NGEU implementation. The Committee on Budgetary Control is scrutinising the NGEU expenditure through the <u>discharge procedure</u>. The EP also has a <u>Standing Working Group</u> on scrutiny of the RRF.

MAIN REFERENCES

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ENDNOTES

- ¹ The Commission sets a number of targets and milestones in its <u>communication</u> on the '2030 Digital Compass: the European way for the Digital Decade', which builds on the 2020 <u>strategy</u> on shaping Europe's digital future.
- ² Under the <u>proposal</u>, Member States would offer citizens and businesses digital wallets that would be able to link their national digital identities with proof of other personal attributes (e.g. driving licences, diplomas, bank accounts). These wallets may be provided by public authorities or by private entities, provided they are recognised by a Member State.
- ³ The six pillars are: 1) green transition; 2) digital transformation; 3) economic cohesion, productivity and competitiveness; 4) social and territorial cohesion; 5) health, economic, social and institutional resilience; 6) policies for the next generation.
- ⁴ The <u>seven flagships</u> are 1) Power up; 2) Renovate; 3) Recharge and refuel; 4) Connect; 5) Modernise; 6) Scale-up and 7) Reskill and upskill.
- ⁵ This internationally recognised study compares how governments across Europe deliver digital public services. It looks at how government websites and portals for citizens and businesses continue to improve across Europe.
- ⁶ For example, the <u>European digital strategy</u>, the <u>European skills agenda</u>, the <u>European Pillar of Social Rights</u>, the <u>European</u> <u>Single Digital Gateway</u>, and the <u>European Education Area</u>.

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Annexes

ANNEXI

Climate and Digital Tagging Annexes – Top investment measure per Member State in the fourth digital policy dimension 'e-government, digital public administration, and the local digital ecosystem' (100 % digital coefficient as per the <u>methodology for digital tagging</u>)

Member State	Measure / Sub- Measure ID	Measure/Sub-MeasureName	Amount (€ million)	Intervention field(s)
Austria	2.C.2	Digitalisation Fund Public Administration	160	011
Belgium	I-2.05	Digitalisation Federal administration services	217.7	011 / 012 / 011quater / 027bis
Bulgaria	38	Construction, development and optimisation of the digital TETRA system and radio network	63.7	011
Croatia	C2.3. R3-I13	Digital transformation of the Tax Administration	56.6	011
Cyprus	C3.5R9	Reform 9: Improving tax collection and effectiveness of the Tax Department – Digital	16.4	011
Czechia	1.2.2	Building and development of core registers and facilities for eGovernment	101.5	011
Denmark	6.1	Digital strategy	67	011
Estonia	3.5	Reconfiguration of basic digital services and safe transition to cloud infrastructure	42.8	011
Finland	P3C2I1	Digitalisation programme for continuous learning	46	011
France	C7.l2	Digital upgrade of the State and territories	500	011
Germany	6.1.2	Digitalisation of the administration – implementation of the Online Access Act	2521	011
Greece	16778	Digitisation of archives and related services	598	011
Ireland	2.4	Investment: 2.4 Provision of an online response option for the census of population	10	011
Italy	M1C1-I1.2-2	Cloud enablement for local public administration	1000	011
Latvia	2.1.2.1i.	Centralised governance platforms and systems	70.2	011
Lithuania	75	6 – Smart tax administration to reduce the VAT gap faster	7.8	011
Luxembourg	3B.I5	'eADEM' (digitalising the national employment agency)	6.4	011
Malta	C3.I.3	Further digitalisation and modernisation of the public administration, including public and intra-facing services, through several solutions to improve the front- end customer experience, data sharing and reuse, virtual desktops, property transfer processes, National Single Window for customs and digital tools for remote- working solutions	17.7	011
Netherlands	P2.3I1	Groundbreaking IT (GrIT)	94	011

Poland	C2.1.1	Public e-services, IT solutions improving the functioning of administrations and economic sectors, and breakthrough technologies in the public sector, the economy and society	420	011
Portugal	TD-C18-i01	Economic justice and business environment (digital transition and resilience of the Portuguese justice IT systems)	267	011quater
Romania	C7.I.1	Deployment of the Government Cloud Infrastructure	374.7	011bis
Slovakia	C17.l1a	Better services for citizens and businesses	177.5	011
Slovenia	C2K2.I.G	Modernising the digital environment of public administration	60.8	011
Spain	C11.l2	Projects for the digitalisation of the General State Administration	1205	011
Sweden	4.1	Joint public administration digital infrastructure	21	011

Data source: European Commission assessments of the NRRPs. The allocations are based on the pillar tagging methodology and correspond to the measures allocated as primary or secondary policy areas to the 'E-Government, Digital Public Services and Local Digital Ecosystems' policy area.

ANNEX II

A snapshot of EU countries' efforts to digitalise public services through RRF measures and relevant components in their NRRPs

Austr

Component 2 'Digital recovery'

Austria is a front-runner in federal e-government services, scoring above the EU average in terms of digital public services provision to citizens. Its NRRP aims to further boost this trend, <u>allocating</u> 52.8% of its RRF funds to digital objectives. The measures are aligned with the <u>Digital Austria in 2050</u> strategic action plan. The NRRP's component 2 'Digital recovery' includes significant investments in e-government, digital public services and IT consolidation. The 'Digitalisation fund – public administration' investment, one of Austria's top three digital measures, aims to speed up digitalisation in the federal administration through projects with a cross-departmental impact. The administration's departments use different data centres, software, hardware and service providers; this heterogeneity needs to be consolidated to cut costs and ensure comparable quality. Examples of possible projects include using e-ID, introduction of a <u>Single Digital Gateway</u>, and development of the <u>Business Service Portal</u>. In addition, a reform would be carried out to implement the once-only principle when dealing with public authorities, which includes amending the Business Service Portal Act

Belgium

Component 2.2 'Public administration'

Belgium is on par with other Member States in terms of digital public services for businesses, but its offer to citizens is <u>below its potential</u>. The <u>NRRP</u>'s digital transition axis and its component 2.2 'Public administration' seek to accelerate the public services' digitalisation at all levels of government by modernising processes, including through novel technologies such as AI. The 'Digitalisation of Federal administration services' is one of the top measures, consisting of a <u>package of 12 investments</u> for the digitalisation of several federal public administrations, including the justice system, the Federal Employment Agency, the Ministry of Foreign Affairs, and asylum and immigration processes, to name a few. The 'Digitalisation of the Flemish Government Region' is another top investment, consisting of 18 projects that aim to ensure low-cost public service for everyone; quick and effective decisions with the help of data; a reliable basic infrastructure by strengthening common information and ICT building blocks; and a hybrid workplace of the future for Flemish officials. Other measures include digitalising services offered by the social security institutions, as well as making them more accessible in the EU context, by improving the exchange of data with the other Member States' institutions. Some measures aim to digitalise regional and local public services in Wallonia, Brussels or Flanders, such as those provided by the Office of Birth and Childhood of the Wallonia-Brussels Federation, or the urban and environmental permit procedures in the Brussels region and Wallonia. The investments are accompanied by

e-government reforms to simplify administrative procedures (e.g. fully digitalising the procedure for setting up a legal person) and to improve and expand e-procurement. The <u>Single Digital Gateway</u> intends to apply the 'once-only' principle also to businesses and citizens from other Member States.

Bulgaria Componen

Component 7 'Digital Connectivity' Component 10 'Business Environment'

Bulgaria's low offer and slow uptake of digital public services in the public and private sector is among its digital challenges, whereas the outdated legal framework remains a major obstacle to digitalisation. The share of internet users that also use e-government is 36 %, the EU average being 64%. e-Identity and electronic signatures are facing delays, although there are other means of identification in place. The NRRP aims to address the fragmentation and lack of interoperability within the public administration and improve the provision of digital public services in areas such as justice, postal services, health, employment and social protection. The most significant measures fall under components 7 'Digital Connectivity' and 10 'Business Environment'. The digitalisation of the Bulgarian Posts is a major project that aims to provide comprehensive administrative and e-government services, including intermediation for basic telemedicine diagnostics services and capturing biometric data for ID documents (with biometric chips) in modernised postal offices located in remote and rural areas. The NRRP supports digitalising the national emergency communication 112 system. It also supports measures aimed at extending the national coverage of and optimising the digital TETRA system and radio relay network with a view to improving the capabilities for coordination and management of crisis prevention and other national security issues. Another investment aims to digitalise paper registries (e.g. those of the Registry Agency and the Agency for Geodesy, Cartography and Cadastre), and the civil status records held by municipal administrations.

Croatia

Component 'Public administration, judiciary and state assets'

<u>Croatia's</u> public administration ranks below the EU average in terms of efficiency, but the Commission acknowledges recent initiatives to step it up, such as the redesigned <u>e-Citizens system</u>, and Croatia's notification of its eID scheme in 2018, which allows personal identity card holders to access a range of crossborder public services. The Croatian NRRP, in particular its component 'Public administration, judiciary and state assets', focuses explicitly on <u>measures</u> to improve digital public services. The NRRP envisages the creation of a central interoperable register for public administrations to tackle the fragmentation stemming from the use of multiple registers and enable the online provision of the 21 administrative procedures listed in Annex II of the <u>Single Digital Gateway Regulation</u>. The introduction of advanced data analytics will also support data-driven decision-making at all levels of the administration. Another key measure envisages creating a mobile e-service platform to allow easy access to online public services via smartphones. In a similar vein, a planned investment would enable users of e-IDs to sign documents on mobile platforms. The plan includes a major investment to expand the State cloud ('CDU') capacity to enable a large increase in the number of users and upgrade it with new functionalities. The CDU platform will be integrated into the Common European Data Spaces to enable secure hosting, access and modification of data and services at EU level. A reform <u>envisages</u> embedding these efforts in '<u>Croatia's 2030 Digital Strategy</u>'.

Cyprus

Component 3.4 'Modernising public and local authorities, making justice more efficient and fighting corruption' <u>Component 4.2 'Promoting e-government'</u>

Cyprus performs well in providing digital services for businesses and open data. However, online interaction between public authorities and citizens <u>could be improved</u>. The NRRP's Component 4.2 is dedicated to promoting e-government, and the relevant measures envisage secure and quality digital services for the public, a government cloud, a modernised registry for companies (beneficial owners), and digitalising key workflows in some central government services. They include <u>certain police services</u> through a new 'Digipol' platform, as well as key processes that would be carried out in the Cyprus Ports Authority. Component 3.4 'Modernising public and local authorities, making justice more efficient and fighting corruption' focuses on digitalising the tax and customs departments and creating a cloud-based IT system for the Cypriot Securities and Exchange Commission. In addition, the plan envisages modernising central and local administrative

functions, digitalising features of the justice and health systems, and enhancing the e-system for issuing building permits. A reform of the insolvency framework will seek to enhance the IT system used by the Department of insolvency and facilitate the use of insolvency tools. The Cypriot government is developing the national eID scheme but has not yet <u>notified</u> it to the Commission (which is a pre-condition for the cross-border recognition of national eIDs).

Czechia

1.2 Digital public administration systems

<u>Czechia</u> faces the <u>challenge</u> of low uptake of e-government services despite the rolling out of fixed highcapacity networks and the offer of new services. Its NRRP <u>focuses</u> on measures targeting better quality and more accessible and interoperable e-government solutions, improving the efficiency in the public use of IT resources, fostering the 'once-only' principle through seamless data exchange and enhanced cybersecurity of the critical information systems. Concretely, the plan envisages the development of the back-end infrastructure to link multiple public administration IT systems and the core registers, thus facilitating data exchange. It plans to invest in a wider offer of eGovernment services through a bigger volume of open data or greater interoperability between user-oriented portals. Single login interfaces and more pre-filled forms are expected to increase the number of e-government users. Through reforms, Czechia aims to address the remaining gaps to enable the shift to digital, including as regards the construction permission procedure and access to e-justice.

Denmark

Component 6: Digitalisation

Denmark ranks well above the EU average in digital public services, with 92 % of its citizens interacting with public authorities online. It is also a leader in digital public services for businesses. As the Commission notes, the digital dimension is somewhat less pronounced in the country's NRRP due to its overall progress. Nevertheless, it <u>supports</u> relevant investments with the main goal of ensuring interoperability between central, regional and local administrations, acceleration of administrative processes and improvement of the digital interaction between administrations, citizens and businesses. A modernised national digital infrastructure will also facilitate the development and implementation of cross-border and interoperable digital services, such as e-ID and the single digital gateway. The NRRP's main reform envisages the adoption in 2022 of a <u>new digital strategy</u> building on the previous one, aiming to create the digital public sector of the future.

Estonia

Component 3 'Digital state'

Estonia is a front-runner in eGovernment, with all central government services being accessible online via the X-road system, a digital information infrastructure that securely connects hundreds of organisations and provides over 3 000 e-services. Despite its leading position, Estonia aims to keep modernising public services; almost half of the NRRP's digital measures address this objective. Component 3 'Digital state' includes measures to help businesses and the public make use of the opportunities offered by the latest technologies, in line with the once-only principle and the goal of implementing the Single Digital Gateway. Key measures include a reform that envisages developing an excellence centre for data management and open data. The reform further envisages developing event services for citizens (enabling their automatic and proactive delivery based on citizens' life or business events such as marriage, birth of a child or creation of an enterprise); putting in place a digital gateway for entrepreneurs; making investments in the deployment of secured cloud solutions in the public sector; and introducing a speech and text-based Al virtual assistance platform ('Bürokratt') enabling access to online public services. Furthermore, a reform will be carried out and an investment made to combat money laundering; this involves setting up a strategic analysis centre within the Financial Intelligence Unit and deploying a dedicated IT system that allows exploiting data from different authorities and identifying possible money-laundering schemes and channels in real time.

Finland

Pillar 2: Digitalisation and the data economy

<u>Finland</u> is yet another digital leader, with relevant <u>measures</u> in its NRRP ranging from data-driven innovation and cybersecurity to investments in digital rail transport and smart energy grids. Digital innovations are envisaged in employment services (e.g. a digital information system that supports inter alia customer relations management, appointment booking, self-reporting by job seekers and online guidance) as well as in healthcare. The NRRP further envisages improvements to the exchange of digital information and use of public sector data, e.g., by providing an electronic solution for the prevention of money laundering, ensuring real-time structured exchange of digital financial data, such as e-invoices or procurement documents, and developing a residential and commercial property information system. A special project aimed at improving cybersecurity envisages providing relevant training to 2 000 public officials until 2025.

France

Component 7 'Digitalisation of the State and territories'

<u>France</u> performs well in terms of digital public services overall, but remains below the EU average, for example, as regards cross-border eID services (based on the 2020 eGovernment Benchmark report). Its NRRP envisages <u>several investments</u> under Component 7 'Digitalisation of the State and territories' aimed at improving digital public services. Civil servants will benefit from a 'Public Agent Digital Backpack' Fund for projects that would modernise their workstations; an 'Innovation and Digital Transformation Fund' is to support high-impact digital initiatives within the central and local authorities, with projects funded under eight themes. There will be support for e-identity deployment, with the aim to deliver up to 12.5 million national digital ID cards in 2023. An application for online authentication (through electronic title chips) for the holder is also to be developed. In addition, strengthening the cybersecurity of government services, especially of those whose disruption would be very detrimental, is also envisaged.

Germany

Component 6.1 'Modern public administration'

For Germany, digitalisation is a <u>relative weakness</u>, and the Commission reminds that it is underperforming in the digitalisation of its government services and in enabling the public authorities' online interaction with citizens. One related impediment is the low usability of Germany's eID solution (national identity card), as well as low level of cloud adoption in the public sector. As many of the services have to be implemented by Germany's 16 federal states, the main challenge is to organise an effective legal and organisational framework and strengthen the federal IT coordination body. More than a fourth of the NRRP's budget goes to digitalising public services, mostly under Component 6.1 'Modern public administration'. Key measures include the country's largest NRRP investment, allocated to digitalising by 2022 more than 115 federal and 100 regional public services, in line with the <u>Online Access Act</u>. The measure 'European Identity Ecosystem' is designed to enable citizens to securely and easily use proof of identity. Further investments in a Europe-wide initiative on next generation cloud infrastructures and services are envisaged, as are funds for modernising and interconnecting different authorities' registers using a unique identification number, expected to help Germany introduce the once-only principle. An example for a reform measure is the creation of a Digital Pension Overview portal to simplify the citizens' access to information on their pension rights.

Greece

Component 2.2 'Modernise'

<u>Greece's low level</u> of digital public services is among its main digital <u>challenges</u>. The pandemic accelerated the use of digital public services, and currently a <u>Ministry for Digital Governance</u> oversees the work on the Greek new strategy ('<u>Digital Bible</u>'), attempting to implement the 'digital by default' mode by 2023. The NRRP <u>dedicates</u> Component 2.2 'Modernise' to the goal of introducing new technologies, tools and infrastructure in the public sector, and improving the offer of e-government and digital public services to citizens and businesses. It seeks to boost interoperability between systems and data, adopt cybersecurity and data governance strategies and policies, and expand the use of cloud computing, Al and big data. The digitisation of archives in key services (justice, urban planning agencies, cadastre, immigration and asylum) and their integration in the relevant IT systems, together with system interoperability initiatives that allow the application of the 'once-only' principle, is expected to be a solid foundation for the digital transformation of public-sector entities. As regards reforms, the development of a new cybersecurity strategy is expected to

improve the security of the public sector's infrastructure and information systems. The planned reform of the tax system would bring about the digital transformation of the Independent Authority for Public Revenue.

Ireland

Component 2 'Accelerating and expanding digital reforms and transformation'

<u>Ireland</u> performs well in terms of open data and provision of digital public services, particularly as regards their user-centricity. However, the cross-border electronic identification accessible for citizens and businesses could be improved. The Irish NRRP <u>envisages</u> the further digitalisation of the public sector by building an energy-efficient government data centre, digitalising the population census to improve the efficiency of data collection and analysis, and implementing a host of eHealth projects. Its Component 2 'Accelerating and expanding digital reforms and transformation' is <u>fully dedicated</u> to the digital transition.

Italy

Component M1C1 'Digitalisation, innovation and security in the public administration'

In 2020, <u>Italy mandated</u> that all public administrations adopt the main eGovernment platforms (including the <u>eIDAS</u>-compliant <u>eID system</u> as the only access method to eGovernment services); as a result, the uptake of digital public services increased. In addition, the country adopted a <u>Three-Year Plan</u> on the digital evolution of the public administration. The Italian NRRP supplements these efforts with a number of <u>digital measures</u>. Its <u>Component M1C1</u> 'Digitalisation, innovation and security in the public administration' includes a €1.9 billion investment in building a secure <u>national cloud infrastructure</u> for the public administration and the migration of the local and central public administrations' IT systems to a cloud-based system. A further €2 billion is envisaged for improving online public services 'fruibility' (that is, interoperability, accessibility and mobile options) and completing key digital platforms like SPID (eID) and ANPR (population registry). The plan envisages the creation of a <u>National Digital Data Platform</u> and the development of a Single Digital Gateway to help central and public administrations restructure prioritised processes and enable the 'once-only' principle. Funds are also allocated for cybersecurity, including for setting up a National Cyber Security Agency, and reinforcing the digital back and front offices of some main central public administrations.

Latvia

Component 2 'Digital transformation'

In Latvia, the digital provision of public services is strong, and the number of e-government users is on the rise. <u>Component 2</u> 'Digital transformation' of its NRRP targets public sector digitisation. Latvia intends to modernise 11 e-government solutions, develop 15 centralised platforms/systems, place 10 systems on the national federated cloud, and improve the digital skills of 62 900 public sector employees, as part of the measures. The modernisation of the national administration and the digitalisation of services are to be carried out with the help of innovative technologies and approaches, including AI and machine learning solutions, and by introducing a data-based foresight and decision-making approach to service and process management and ensure the full implementation of the 'once-only' principle. The Latvian Federal Cloud – to be created through a key investment under the NRRP, will provide the public administration with a shared computing and data management infrastructure and its relevant services.

Lithuania

Component 3 'Digital transformation'

Lithuania's NRRP includes substantial measures – the largest part of the 'Digital transformation' component <u>3</u> – to digitalise the public sector, promote digital skills for civil servants, and develop innovative tools allowing universal access to digital resources, including for citizens with disabilities. The NRRP includes investments that would spur the development of science and businesses and the deployment of advanced digital technologies tailored to the Lithuanian language. The reform 'Customer-oriented services' aims at full transformation of national and local government processes, full digitalisation, system integration, re-use of data, and the highest quality of service provided. Another reform on data management and open data is to ensure the availability of reliable public sector data, the possibility to share it, re-use it and create the conditions for data-driven public policy. Further measures include launching a digital employment platform, rolling out genome sequencing infrastructure as part of the <u>Genome of Europe</u> multi-country project, and deploying new digital public ICT solutions that should enable the use of e-invoices and e-consignments.

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Component 3A 'Promoting a data-based economy' Component 3B 'Modernisation of public administration'

Luxembourg commits in its Electronic Governance 2021-2025 strategy to provide a digital alternative for all public services. The Commission has <u>assessed</u> that despite its digitally mature public sector (providing prefilled online forms and using big data), and its place among the EU leaders in other digital areas, Luxembourg's use of digital public services <u>remains</u> below the EU average. The NRRP's component 3A 'Promoting a data-based economy' is aimed at the development of ultra-secure, quantum technology-based communication infrastructure (LuxQCI lab) helping the public and the private sectors to enhance the security of communication of sensitive data. Component 3B 'Modernisation of public administration' includes a measure aimed at the expansion of digital public services through <u>'MyGuichet.lu</u>', a set of three projects. The first one involves enabling public administrations to offer citizens virtual appointments and access to different functionalities via video conference; the second one aims to introduce 12 new online services (aligned with the Single Digital Gateway Regulation); and the third one aims to transfer the functionalities of MyGuichetlu to a mobile application. Another key investment envisages digitalising the Agency for the Development of Employment.

Malta

Component 3: Fostering a digital, smart and resilient economy

In 2022, <u>Malta</u> topped the eGovernment ranking (a <u>score of 96 %</u>) and ranked third in DESI. It has an advanced offer of digital public services and re-uses information across administrations to reduce compliance costs (by making pre-filled forms available). In spite of this, there is room for increasing user take-up of online services. The NRRP <u>includes</u> investments to that end in its <u>digital component3</u>. Investing in the government's digital backbone, e.g. in digital services and infrastructure, such as data centres and cloud services, is expected to boost interoperability across public administrations and enable the application of the 'once-only principle'. This measure further envisages developing tools and infrastructure for cybersecurity and offering digital training to civil servants. Investments in the 'Further digitalisation and modernisation of the public administration' will increase the uptake of e-government services by improving internal services within the public administration, optimising front-end customer experience, setting up registers for data sharing and reuse purposes (e.g. property transfers), and creating a national single window for customs. Investment in digital services and a cloud-based infrastructure for the merchant shipping sector is another relevant measure.

Netherlands

Component 2 'Accelerating the digital transformation'

The Netherlands is among the <u>top performers</u> in the digital domain, and its citizens have generally high levels of digital skills; nevertheless, ensuring the accessibility of digital services for all citizens requires <u>continued</u> <u>attention</u>. In the Dutch NRRP, Component 2 'Accelerating the digital transformation' aims, among other things, to accelerate the digitalisation of the Dutch central government. The 'Groundbreaking IT (GrIT)' investment is part of a large-scale programme to renew the IT infrastructure of the Ministry of Defence, allowing the use of reliable, secure, future-proof and flexible systems. As part of the NRRP, 14 projects (including information security, call centres and information desks, and secure communication with third parties) not directly related to operations with military or defence implications are to be implemented. A reform of the 'Public information management (Open Government Act)' aims to revamp the way the public administration manages information to make it more transparent and open, and to ease citizens' digital access.

Poland

Component C: Digital transformation

In <u>Poland</u>, efforts to support the use of ICT and e-government are <u>needed</u>, including for improving the digital capacity at local and regional level (only 28.6 % of the municipalities have digitalised studies, plans and maps).

The NRRP presents a mix of projects and legislative changes aimed at contributing to the digitalisation of the infrastructure, enhancing the digital skills of public sector employees, and improving the efficiency of administrative processes and the analytical capacity of decision-making. The measures include the development of a digital identity for citizens and businesses, digital signatures, structured electronic invoices, and public data-sharing platforms and IT systems. Through investment earmarked for 'Public e-services, IT solutions improving the functioning of administrations and economic sectors, and breakthrough technologies in the public sector, the economy and society' Poland will be launching multiple and wide-ranging projects, aimed, for example, at developing new e-services and a national e-invoice system, and digitalising the invoicing and administrative procedures related to construction and spatial planning. A reform and an investment also envisage strengthening the government's cybersecurity capacity.

Portugal

Component 19 'Digital public administration'

Portugal is one of the 14 Member States with national eID schemes recognised by the other countries. One of the pillars of its 2020 action plan 'Portugal Digital' is the digitalisation of the public administration. Portugal's efforts to invest in a digital public sector, addressing in particular the fragmentation and duplication of requirements, continue through the ePortugal portal. The NRRP's Component 19 'Digital Public Administration' is centred on the need to provide more, better, and simpler digital public services, and implement the 'digital by definition' and 'once only' principles in the public administration. A reform is dedicated to ensuring that the needed legal framework is in place to implement these goals. Two other reforms aim to promote a modern and more efficient public administration, and upskill civil servants while also implementing new working models (teleworking). The investments include measures to: overhaul the front office of public and consular services and modernise them via an omni-channel response capacity (Single Digital Gateway, call centre and in-person services); introduce novel technologies, e.g. cloud; strengthen interoperability and data sharing, as well as the interoperability with external entities and crossborder (connection with the European Single data portal); enhance cyber- and information security; increase the resilience of critical digital infrastructures (emergency and security communications networks) and the government computer network (RING). Two investments aim to boost the provision of digital public services in the regions of Madeira and Azores with infrastructure, tools, and know how.

Romania

Component 7 'Digital transformation'

In 2022, <u>Romania</u> ranked last in DESI. According to the <u>Commission</u>, some of the country's barriers to having functional digital public services include the lack of coordination between public institutions; the IT specialists' migration towards the private sector and the overall lack of digital skills. Romania needs to expand its digital offer and focus on interoperability and on finalising the actions on eIDAS (electronic identification, authentication and trust services). Component 7 'Digital transformation' of Romania's NRRP is fully dedicated to transforming the public administration's processes, which are currently fragmented, dated, vulnerable to cyberattacks and non-interoperable. Two key investments include building a government cloud infrastructure and deploying the eID card for citizens. The first covers at least 30 public institutions, which are to be connected to the cloud. The second one would be a key enabler for adopting digital services and gaining access to various electronic services (banking, tax, social, financial). The <u>target</u> is 8.5 million eIDs by June 2026. Other measures include digitalising the pension, employment and social protection systems, implementing eForms in public procurement, as well as increasing digital access to spatial and urban planning documents.

Slovakia

Component 17 'Digital Slovakia'

<u>Slovakia's</u> digital performance <u>remains</u> weak, and the uptake of digital technologies is slow. As the Commission <u>notes</u>, the NRRP puts a strong emphasis on digitalisation of the public sector, both through sectoral reforms (justice, police, healthcare) and horizontal measures aimed at increasing the quality and accessibility of eGovernment solutions, improving the efficiency of publicly used IT resources and strengthening cybersecurity. Component 17 includes the most relevant measures. Through an investment earmarked for 'Better services for citizens and businesses' the country plans to deploy integrated user-friendly e-government solutions for 16 priority life situations, which currently involve interactions with multiple public

entities, digitalised to a varying degree and using different IT systems. An investment for 'Digital transformation of public service delivery' aims to optimise and automate processes to enable faster services. As a result, 42 public administration sections will be transformed and will have a fully functional digitalised version by June 2026. To increase trust in e-services, Slovakia intends to step up cybersecurity across all public administration sectors. Investments in information systems will improve the efficiency of the judiciary, police, firefighting and rescue processes. Electronic handling of insolvency procedures and an e-marketplace for public procurement are also envisaged, as is a reform of the governance model for the digital economy.

Slovenia

Component 'Digital transformation of the public sector and public administration'

Slovenia offers a wide range of basic online services for businesses. To accelerate their uptake, however, it needs to rollout solutions such as e-identifiers or e-signatures, increase trust in online transactions and ensure mobile and cross-border access to public services as well as interoperability across big systems (tax authority, land cadastre, company register, etc.). The <u>NRRP component</u> 'Digital transformation of the public sector and public administration' envisages introducing an e-ID that would enable the uniform development of e-services at national and international level, and facilitate access to interoperable e-services. Through an investment earmarked for 'Modernising the digital environment of public administration', Slovenia will develop user-centric e-services and upgrade the IT infrastructure in the public administration. A sub-investment envisages digital skills training for around 40 000 civil servants. Another measure targeting digitalisation of internal security intends to upgrade the technology of the police to optimise its work processes. A strong focus is placed on e-health and e-justice, as well as on digital public services strategy, the re-establishment of the Informatics Development Council as a 'one-stop shop' for coordination of all IT investments in the state administration, and the creation of a Competence Centre to improve human resources management.

SpainFourth policy area 'An administration for the XXI century',
Component 11 'Public administration'

Spain enjoys high levels of online interaction between public authorities, citizens and businesses. However, its NRRP's fourth policy area 'An administration for the XXI century', and <u>Component 11'Public administration</u>' aim to reinforce the good performance by digitalising all levels of government and enhancing access to digital services in rural areas. This is part of the wider efforts to digitalise the general public administration, including the health, justice and public procurement systems, but also the school, vocational education and training systems and universities, and the sports federation. The NRRP envisages actions to enhance the public sector's cybersecurity capacities, key to detecting and responding to cyberattacks. Another investment targets the digital transformation of the administration of the Autonomous Communities and local authorities. A dedicated investment earmarked for Transformation of the administration for the implementation of the Spanish NRRP' will be used to modernise the information system and channels of communication to share information across levels government and with citizens, companies and potential beneficiaries, while also providing targeted trainings to the general public administration during the NRRP's implementation. Reforms include the implementation of the <u>Digital Spain Agenda 2025</u>, the 5G cybersecurity law and the <u>artificial intelligence strategy</u>.

Sweden

Component 4 'Broadband expansion and digitalisation of public administration'

Sweden is a top-performer, with widespread e-government services and prevalent e-identification. While its public sector is <u>admittedly</u> digitally mature, there is room for improvement on open data and reuse of public data. Many initiatives in the country's <u>2017 digitalisation strategy</u> aim at harnessing the availability of open data and increasing the innovative use of digital technologies to create value-adding services both to the public and to businesses. Sweden's <u>Agency for Digital Government</u>, established in 2018, has been mandated to coordinate and support digitalisation across the public sector, with a focus on these two aspects. In the Swedish NRRP, digital component 4 addresses, among other things, the further digitalisation of the Swedish public administration.