OECD Digital Government Studies

Digital Government Review of Romania

TOWARDS A DIGITALLY MATURE GOVERNMENT

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BETTER POLICIES FOR BETTER LIVES

Please cite this publication as:
OECD (2023), *Digital Government Review of Romania: Towards a Digitally Mature Government*, OECD Digital Government Studies, OECD Publishing, Paris, https://doi.org/10.1787/68361e0d-en.

ISBN 978-92-64-45636-5 (print)
ISBN 978-92-64-57884-5 (pdf)
ISBN 978-92-64-42412-8 (HTML)
ISBN 978-92-64-31713-0 (epub)

OECD Digital Government Studies
ISSN 2413-1954 (print)
ISSN 2413-1962 (online)

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Foreword

In the era of digital transformation, a mature digital government is essential for a responsive and inclusive public sector that meets the evolving needs of users, while ensuring equal access and treatment for all. The fast-paced adoption of digital technologies in the public sector demands robust governance arrangements that balance opportunities and risks.

Digital government is a core policy priority for the Government of Romania, as underlined by the recent creation of the Authority for the Digitalization of Romania. Established in 2020, the Authority is responsible for steering the digital transformation, including digital government. Romania needs to ensure that its public sector can use digital tools and data to manage internal operations and processes that result in more coherent, human-centric operations and services.

The *Digital Government Review of Romania* assesses the state of digital government in Romania and provides policy recommendations in four areas:

- Governance of digital transformation
- Digital capabilities and talent
- Data-driven public sector
- Design and delivery of public services in the digital age.

The Review builds on the provisions of the OECD Recommendations on Digital Government Strategies (2014), on Enhancing Access to and Sharing of Data (2021), and on the Governance of Digital identity (2023), as well as on the OECD Digital Government Policy Framework. The completion of the Review involved the participation of the Authority for the Digitalization of Romania, the General Secretariat of the Government and 16 other public sector institutions.

The policy recommendations presented in this Review are based on a thorough analysis of existing strategies, policies, and initiatives on digital government and their implementation. They aim to inform government decisions to improve digital government maturity in Romania and support the achievement of broader policy goals.

OECD Digital Government Reviews help policymakers guide strategic decisions on the use of digital technologies and data to support a sustainable, responsible, and inclusive digital transformation of the public sector.

This Review is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and the arguments employed herein do not necessarily reflect the official views of OECD member countries.

Acknowledgements

The *Digital Government Review of Romania* was prepared by the OECD Directorate for Public Governance (GOV), under the leadership of Elsa Pilichowski.

The Review was produced by the OECD Open and Innovative Government Division in GOV, under the direction of Carlos Santiso, Head of the Open and Innovative Government Division, and supervision of Barbara-Chiara Ubaldi, Head of the Digital Government and Data Unit.

Chapters 1 was written by Seong Ju Park, Chapter 2 was written by Felipe González-Zapata, Chapter 3 was written by Cecilia Emilsson, and Chapter 4 was written by Seong Ju Park and Felipe González-Zapata, Policy Analysts in the Open and Innovative Government Division. All chapters benefitted from the strategic orientation and revisions of Barbara-Chiara Ubaldi. Felipe González-Zapata was the lead co-ordinator of the Review. Lena Bodeit, Junior Policy Analyst in the Global Relations and Co-operation Directorate (GRC) provided comments to this report. Andrea Uhrhammer (GOV) provided editorial assistance for the finalisation of the manuscript.

The OECD Secretariat would like to thank the two peer reviewers that participated in this Review, who shared their extensive country-based knowledge and experience during the process, namely:

- Mr Olivier Joviado, Project Manager, Interministerial Digital Directorate (DINUM), France
- Mr Fabrizio Marchese, Scientific-Technological Officer, Department for Digital Transformation, Italy

This Review would not have been possible without the leadership and invaluable contribution of the Authority for the Digitalization of Romania, in particular its President, Dragoș–Cristian Vlad; Monica Chiffa, Head of International Relations; and Silviu Gorunescu, Advisor; as well as the General Secretariat of the Government, in particular Larisa Barac, Advisor on Open Government. The OECD Secretariat would like to acknowledge the contribution of all public officials from Romania that participated in the OECD survey, joined the fact-finding mission, and contributed to the online workshops. The Secretariat is also grateful for their comments and feedback provided to this report prior its finalisation and publication.

The present Digital Government Review was conducted in the framework of the project “Capacity building in the field of public governance - a co-ordinated approach of the Centre of the Government of Romania” which benefits from a grant in the amount of EUR 3 020 000, offered by Norway within the Programme “Local development, poverty reduction and increasing the inclusion of Roma”, financed by the EEA and Norwegian Grants 2014-2021 and administered by the Romanian Social Development Fund. More information about the project and about the Programme “Local development, poverty reduction and increasing the inclusion of Roma” can be found on the websites: www.frds.ro and www.eeagrants.ro.

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Executive Summary

The rapid advancement of the digital transition offers wide-ranging opportunities for governments to improve public services and connect with citizens. However, the promise of the digital revolution can be undermined if policymakers prioritise technology over users and their needs. Adopting a user-centric approach to the digital transformation of government is important to harness its benefits for all while mitigating associated threats, ensuring inclusive and equitable outcomes. In this context, mature digital governments are needed to address pressing challenges in public governance (such as spending better, mitigating climate change and tackling mis- and disinformation) and meet the needs of citizens and communities. As digital tools become increasingly widespread within public administration, governments should establish a solid governance of digital government, including appropriate structures and competencies, that enables a fair, reliable, and sustainable digital transition of the public sector, grounded on democratic values and the rule of law.

The transition towards digital government in Romania follows a similar path as that of OECD Member countries. After adopting digital tools to enhance transparency and streamline internal operations, Romania is nowadays at a critical juncture in using digital government to make the public sector journey, where only a more coherent, user-centric and cohesive approach for the digitalisation of its public sector will meaningfully improve social and economic development.

Under the leadership of the Authority for the Digitalization of Romania (ADR), a public sector entity within the Ministry of Research, Innovation and Digitalization (MCID), Romania is taking concrete actions to promote the digital transformation of the public sector. This includes establishing a government cloud and national interoperability platform. However, further actions could be undertaken to secure a system-wide and human-centric digitalisation of the public sector.

First, Romania needs to further strengthen the governance of digital government. The organisation steering the digital transformation of government is not yet positioned strategically to gain necessary political support and legitimacy across the public sector. Furthermore, development and implementation of a dedicated digital government strategy is needed to facilitate the successful transition from e-government to digital government. Capabilities and resources, both in terms of talent and tools, are needed for public sector institutions to effectively adhere to and implement digital government policy goals. Romania may need to expand existing methods to manage digital government investments in the context of increasing availability of national and EU funds to support the digital transformation, as well as a clear roadmap and innovative mechanisms to address the structural challenges in attracting, retaining and developing digital talent and skills in the public sector.

Second, Romania should consider establishing clearer leadership and accountability mechanisms for achieving a data-driven public sector, along with a strategic plan to monitor progress. There is a need to transition from focusing on the adoption of legal measures to focusing on implementation, which includes supporting better alignment and allocation of resources (e.g., through the adoption of standards and guidelines), and fostering a culture that encourages innovation and collaboration. Prioritising efforts on open government data is also essential to maximise the value derived from public sector data and achieve social and economic benefits for Romanian society.

Finally, the digital age brings tremendous opportunities for the design and delivery of better public services, that can contribute to improving government reliability and responsiveness and reinforce trust in government. To fulfil this promise, Romania can strive to design and deliver inclusive and proactive services, putting users' needs first, by developing a shared vision and strategic approach to public services for the whole government. Ensuring quality end-to-end service experience for all users is a critical success factor which requires adopting an omnichannel approach in service design to avoid further digital exclusion. Furthermore, despite ongoing advancements such as the government cloud, the National Interoperability Framework and the implementation of digital identity under the EU eIDAS, further investing in shared digital public infrastructure constitutes another priority for Romania. This includes implementing other critical digital public infrastructure systems, for instance on digital notifications and payments. Lastly, developing standards, guidelines and capacities to effectively design and deliver seamless government services is a must for service teams to be equipped with the right tools.

Key policy recommendations

Governance of digital government

- Empower the Authority for Digitalization of Romania (ADR) as the organisation in charge of driving the digital government agenda across the public sector by strategically positioning it within the General Secretariat of the Government (GSG) for greater political support and legitimacy.
- Develop -- through an inclusive and collaborative process -- a dedicated digital government strategy with a strategic vision to facilitate the transition from e-government to digital government.
- Strengthen the co-ordination and collaboration mechanism to secure engagement of all relevant stakeholders and promote knowledge sharing and institutional learning among practitioners.

Public sector digital capabilities

- Establish a comprehensive framework to manage investments in digital government, from planning to execution and monitoring, to maximise the benefits of ICT/digital projects.
- Strengthen the co-ordination for the management of digital talent and skills in the public sector to define and implement a dedicated digital skills strategy.
- Define dedicated training and upskilling activities to support the implementation and operation of flagship digital government initiatives, such as government cloud and data interoperability.

Towards a data-driven public sector

- Define clear leadership for the data-driven public sector agenda and develop a comprehensive data strategy through an open and participatory process.
- Prioritise efforts to improve data management skills in the public sector and establish a data-driven culture that facilitates trust, collaboration, exchange, and experimentation with data.
- Establish clearer links between the country's open government data policy and the broader work on data and interoperability.

Service design and delivery in the digital age

- Set a shared vision and strategic approach to public service design and delivery across the public sector, highlighting objectives and concrete actions to ensure a coherent approach in the use of digital tools and data.

- Promote an omni-channel approach to ensure an optimal end-to-end public service experience for all users, going beyond a “digital by default” approach.
- Develop a comprehensive service standard and guidelines, including on service design, user research, ICT procurement and agile management, to support service teams in the design and delivery of government services.
- Promote the development of a robust and sustainable ecosystem of digital public infrastructure that includes key building blocks such as digital notification and payment systems.
- Establish adequate governance and co-ordination to implement core systems of digital public infrastructure such as government cloud, data interoperability and digital identity.

1 Assessment and recommendations

This chapter presents the assessment of the state of digital government in Romania, based on the analysis undertaken as part of this review. It includes policy recommendations to support Romania in the digital transformation of the public sector. The assessment and recommendations are structured around four areas: 1) the governance for digital government; 2) public sector capabilities for digital government; 3) data-driven public sector; and 4) service design and delivery in the digital age.

Governance for digital government

Contextual factors

A government's political and administrative cultures play a pivotal role in shaping the governance of digital government and need to be taken into account in the development and implementation of digital government strategies. In addition, understanding the broader socio-economic and technological context is crucial for effectively governing the digital transformation of the public sector. Considering the economic conditions, existing levels of digital maturity across society, demographics and technological advancements enables the alignment of strategic decisions on digital government with a country's unique needs and opportunities.

In recent years, Romania has shown notable economic growth, reaching 4.8% in 2022 driven by robust private consumption and increased investments. However, underlying structural vulnerabilities such as persistent poverty, economic disparities, gender gaps in workforce participation, and institutional constraints have been exacerbated by the COVID-19 pandemic and geopolitical events such as Russia's war of aggression against Ukraine. Additionally, high disparities across the country, particularly between the capital and other regions, have been identified as key vulnerabilities impacting labour productivity, investment, and employment. Demographic shifts in Romania have also presented challenges. The population has declined, mainly due to emigration, with approximately 5.7 million Romanians residing abroad, as well as aging demographics with a notable increase in the proportion of individuals aged 65 and older.

Regarding the technological context, Romania has made important efforts to enhance its telecommunication infrastructure and digital connectivity, ranking among the fastest-growing countries for fixed broadband. Moreover, the country's thriving start-up landscape, fuelled by a growing ICT workforce in the private sector, has positioned it as an emerging innovation hub in central and eastern Europe. Nevertheless, persistent challenges remain in narrowing the digital divide, particularly between urban and rural areas, and attracting and retaining digital talents in the public sector.

Institutional set-up

In recent years, Romania has grappled with maintaining a strategic and consistent approach to the digital transformation of the public sector due to frequent changes in government decisions and practices around the governance arrangements for digital government. The responsibility of leading the digital transformation efforts has shifted among various government organisations. This has impacted continuity of digital government initiatives and undermined the overall digital government agenda.

Established in 2020, the Authority for Digitalization of Romania (ADR), under the Ministry of Research, Innovation and Digitalization (MCID), assumed the role of leading organisation for digital government. The ADR aims to expedite the nation's digital transformation and foster the growth of the information society. Government directives entrusted the ADR with strategical planning, policy development and implementation of digital government initiative across the public sector, closely collaborating with the General Secretariat of the Government (GSG). Its core functions involve coordinating and managing information systems that facilitate eGovernment services, such as the eGovernment Portal and the Electronic System for Public Procurement. The ADR is also tasked with streamlining administrative procedures for service providers and achieving interoperability at both national and European levels.

Despite its mandate outlined in the government directives, the ADR faces challenges in gaining legitimacy and authority with public sector institutions, with limited attention from higher leadership. Its existing objectives and functions fall shy of decision-making and co-ordination responsibilities. They are primarily centred around providing technical support to other government entities in their digital pursuits, rather than driving transformative changes across the public sector. Consequently, this limits the ADR's ability to

achieve horizontal co-ordination with public sector institutions and alignment with subnational governments, which has resulted in fragmented efforts, duplicated initiatives, and a disconnect among national, institutional, and subnational priorities. The ADR's limited mandate have also contributed to weakened oversight and accountability, potentially resulting in resource misallocation and the persistence of underperforming initiatives.

Co-ordination and co-operation

Despite being recognised across the public sector, the co-ordination mechanism for digital transformation requires effectiveness in promoting inter-ministerial communication and collaboration. In Romania, the Committee for e-governance and red tape reduction (CERB) co-ordinates the implementation of the digital transformation of the public sector with the support of the GSG, based on the government decision no.331. The Committee led by the prime minister is composed of high-level representatives from 27 public institutions. The Committee is mandated to ensure coherence in the implementation, co-ordination, monitoring and evaluation of "e-government" policies; to facilitate inter-ministerial co-ordination for implementing, administering, and operating electronic public services; and to provide a compliance framework for common technical standards and regulations in this domain. It is supported by the Technical-Economic Committee for the Information Society (CTE). The CTE is led by the president of the ADR, and serves as a technical committee that offers support in the development and monitoring of the national policy for digital government transformation.

These two prominent committees are widely acknowledged by almost all public sector institutions. Nonetheless, various stakeholders share doubts regarding their actual effectiveness, particularly concerning the inter-ministerial co-ordination mechanism. The CERB has not been effective enough to facilitate communication and collaboration across the public sector, thereby lacking the institutional alignment and coherence necessary for a successful digital transformation across the public sector. The waning influence of the committee has led to the subsequent decline in active engagement from its members. To harness the potential of the existing coordination mechanism, the government can consider implementing concrete measures to strengthen existing processes to ensure a coherent and sustainable digital transformation across the public sector.

Strategy and plan

The absence of a comprehensive digital government strategy hinders the digital transformation of the Romanian public sector. In 2020, the GSG and the ADR jointly published *eRomania – A Public Policy in eGovernment*, officially endorsed by the government in June 2021. The primary objective of this policy is to bolster the quantity and quality of e-government services in Romania by empowering public institutions to advance and implement them. The policy details roadmap to advance e-government services around 36 key life events impacting citizens and businesses and a set of actions to amplify the range of electronic services and enhance the digital competencies of public servants by 2030. Yet, the policy falls short as the digital government strategy that transcends e-government services and can guide digital transformation at the whole of government level.

Proposals for action

In light of the key assessments elaborated above, which draw on the main findings and analysis included in Chapter 2 of this review, the Romanian government could consider implementing the following policy recommendations:

1. **Empower the Authority for Digitalization of Romania (ADR) as the organisation-in-charge of driving the digital government agenda across the public sector.** The following actions can be considered:
    a. Position the ADR within the General Secretariat of the Government (GSG) for a greater political support and legitimacy to set a shared whole-of-government vision.

b. Create an interdisciplinary team with representatives from the ADR and GSG to create synergies on the cross-cutting policy areas, including open government and de-bureaucratisation.

2. **Strengthen the co-ordination and collaboration mechanism to secure engagement of all relevant stakeholders across the public sector.** The following actions can be considered:
   a. Take concrete measures (e.g., enhancing communication channels, setting measurable targets) to strengthen processes under the Committee for e-governance and red tape reduction (CERB) and the Technical-Economic Committee for the Information Society (CTE) to ensure coherence and sustainability of the digital transformation agenda.
   b. Establish a platform to allow practitioners at the technical level from different public sector institutions to promote knowledge sharing, institutional learning and building trust among institutions.
   c. Enhance the ADR's monitoring and impact assessment functions to ensure the effective implementation of the digital government agenda.
   d. Establish organised and regular co-ordination meetings with digital leaders of the subnational governments to extend the impact of digital transformation to the subnational level.
3. **Develop a dedicated digital government strategy proposing a vision to facilitate the transition from e-government to digital government.** The following actions can be considered:
   a. Leverage the CERB and the CTE to set an ambitious vision and clear priorities at the whole-of-government level, taking into consideration specific institutional needs.
   b. Align the digital government strategy with other sectoral and thematic strategies to ensure coherence and gain support from the wider public sector.
   c. Ensure that the digital government strategy is accompanied by a detailed action plan and a long-term investment plan along with responsible actors for each action item.
   d. Engage key stakeholders from public, private sectors and civil society from the formulation stage of the strategy and ensure ongoing co-ordination throughout implementation.
   e. Continue to track and monitor the progress made by all relevant stakeholders to ensure that the strategy remains relevant and on course.

Public sector capacities for the digital transformation of government

Management of digital government investments

In Romania, planning related to digital government is the result of the collaboration between the Committee for e-Governance and Red-Tape (CERB), under the Prime Minister's Office, and the ADR under the co-ordination of the MCID. This governance arrangement presents challenges in terms of clarity of roles and effective co-ordination with other public sector institutions for the implementation of the digital government policy and projects in the country. This impacts the government's capability to cohesively manage investments in digital government. The ADR, primarily focused on the provision of technical assistance, assesses and approves investments through the CTE. However, the CTE often operates under limited co-ordination with the CERB, leading to possible duplicated efforts and reduced inter-institutional collaboration. This is particularly relevant in the context of increased availability of EU funds for the digital transformation of governments which are managed and co-ordinated directly by the Ministry of Investments and European Projects (MIEP).

The technical nature of the CTE also impedes a holistic and strategic approach to digital investments, e.g., it limits the government's capacity to leverage evidence to monitor investments from planning through benefits realisation. The current system largely emphasises technical aspects (such as technical requirements and standards for development), does not provide a strategic analysis of the benefits of digital projects, and does not align investment decisions with broader policy frameworks. Similarly, there

is limited clarity on the criteria used to prioritise ICT projects. Almost all projects get approved, but the basis for approval remains unclear for most of the interviewed public sector institutions. Also, collaboration with the National Agency for Public Procurement (NAPP) is limited. This situation impacts the existing culture and capacities to effectively source ICT/digital goods and services from the private sector in sustainable ways. This includes the involvement of govtech start-ups to promote collaboration, innovation, and cost-effective digital solutions.

Despite the legal mandate for the ADR to monitor and evaluate digital policies, there is no comprehensive system to track the implementation of ICT/digital projects and associated investments, e.g., set of key performance indicators or specific monitoring framework for key and cross-organisational investments. The ADR publishes regular updates and reports online, but these do not offer an in-depth look into the progress of digital investments, as they rather focus on communicating key events and milestones of related projects. Monitoring of EU funds is managed by the MIEP, and the ADR is only involved in projects within its immediate scope. Romania could leverage existing platforms such as MySMIS and Fonduri-EU.RO to develop a broader monitoring framework to track progresses achieved in terms of digital transformation, using key performance indicators.

Digital talent and skills in the public sector

The ADR is responsible for fostering digital talent and skills within the Romanian public sector, as per their mandate outlined by law. Upon this remit, the ADR is expected to design and implement a national plan to enhance digital skills across the central government. This responsibility coincides with the mandate of the National Agency for Civil Servants (NACS), which oversees civil service policy, recruitment, and talent development. However, a noticeably limited co-ordination between the ADR and NACS has caused ambiguity about the authoritative body responsible for the development of digital talent in the Romanian public sector.

Despite the development of digital talent and skills being a high priority for numerous institutions, the peer review process evidenced that Romania does not have yet a clear strategy to address the attraction, promotion, and retention of digital talent in the public sector. No authoritative entity is identified for defining and communicating digital skills profiles, leading to inconsistent standards across the Romanian government. Additionally, Romania's public sector confronts structural challenges to attract and retain digital talent, especially compared to the more competitive conditions offered by the IT sector. In this context, Romania is not tapping on complementary and out-of-the-box solutions that would create better conditions for digital talent in the public sector, including flexible working arrangements or teleworking.

In the absence of a common strategy and vision for digital talent in the Romanian government and due to a strongly legalistic and technology-led approach to the digital transformation, public sector organisations still work largely in siloes and do not often collaborate in the implementation of joint digital transformation initiatives. Furthermore, there is no clear baseline to assess the digital talent needs in the public sector in a comprehensive and holistic way. Ongoing initiatives such as the training programme led by NACS with EU funds, or Together in a Digital Romania run by the non-for-profit Romanian sector are contributing to strengthening public sector capacities for government digital transformation in the country. Nevertheless, the efforts require to go beyond technical skills to secure a comprehensive set of digital competencies that includes leadership, strategy, and service design skills at horizontal and vertical levels within the government.

Proposals for action

In light of the key assessments elaborated above, which draw on the main findings and analysis included in Chapter 3 of this review, the Romanian government could consider implementing the following policy recommendations:

4. **Establish a comprehensive and end-to-end framework for managing investments on digital government.** The

following actions can be considered:

a. Set governance mechanisms for strategic decisions on investments which are clear, agreed upon by the Romanian digital government ecosystem and binding (e.g., a high-level committee for investment prioritisation) aligning the mandate of the ADR and CERB as well as integrating key stakeholders such as MIEP and ANAP.
b. Revisit the Technical-Economic Committee's value proposition model and approval process to transform them into a strategic assessment mechanism, securing clear alignment with policy goals and criteria for prioritising and approving investments.
c. Define an IT portfolio system that integrates value proposition (strategic and technical), prioritisation, funding approval and monitoring of investments, in co-ordination with MIEP, GSG and MCID.
d. Leverage existing processes to apply for and monitor EU funds in digital transformation within the recommended government IT portfolio.
e. Create dedicated guidelines for ICT procurement to leverage existing procurement mechanisms for digital transformation beyond regular open tendering processes.
f. Explore options to develop a dedicated digital marketplace to support sourcing of digital goods and services.
g. Consider the implementation of a dedicated GovTech initiative that supports a culture of innovation, experimentation, and collaboration within the public sector through collaborations with the ecosystem of innovators and entrepreneurs.
h. Develop a dedicated monitoring system for investments that provides strategic information for ADR and the public sector about the implementation of investments, leveraging processes and standards for existing systems to obtain EU funding.
i. Advance in the implementation of a user satisfaction system that effectively captures the experience of users with the public sector to inform policymaking and service design and delivery as part of the efforts to monitor impact of investments.

5. **Strengthen government capacities to attract, retain and develop digital talent and skills in the public sector.** The following actions can be considered:
   a. Improve the co-ordination between the ADR and NACS regarding digital talent and skills in the public sector, articulating their roles and mandates into a dedicated governance structure.
   b. Establish a dedicated digital skills framework for the Romanian public sector, including the definition of job families, profiles and a roadmap for talent needs in the short, medium, and long term.
   c. Set a government-wide and comprehensive measurement instrument to assess digital talent and skills needs in the public sector, complementing NACS's existing efforts.
   d. Explore the use of out-of-the-box and flexible solutions to increase incentives to attract and retain digital talent and skills in the public sector, including the use of teleworking arrangements, flexible working hours, promotion schemes and microlearning.
   e. Leverage the experience of more digitally mature public sector institutions to promote digital talent and skills and consider actions to expand their applicability.
   f. Define dedicated training, upskilling methods and communities of practice for flagship digital government initiatives such as the government cloud and interoperability framework that help close existing capacity gap among public sector institutions.

Towards a data-driven public sector

Data governance

Currently, Romania does not have a central focal point driving the Data-Driven Public Sector (DDPS) agenda, with partial responsibilities falling on the ADR and the MCID. Open government data initiatives are overseen by the GSG, which operates the open data platform data.gov.ro, while the Special

Telecommunication Service plays a role in data infrastructure. The absence of clear leadership has negative implications for accountability in promoting a DDPS. Furthermore, as there is also no formal data strategy for the public sector, this is resulting in fragmented efforts and varying levels of data management maturity across institutions.

Recent developments in Romania have focused on compliance with EU directives and frameworks, including the adoption of Law 242/2022, regarding data exchange between IT systems and the creation of the National Interoperability Platform, and the transposition of the EU Open Data Directive with Law 179/2022. While public institutions find the legal framework for data gathering and sharing to be well-suited to their needs, the availability of guidelines and standards to support implementation is perceived as insufficient. Moreover, a shortage of data professionals within the public sector has created a dependency on external contractors and the absence of a data-driven culture and culture of collaboration pose significant challenges to data sharing.

Romania will invest significantly in data infrastructure projects, notably the government cloud initiative. However, concerns have arisen regarding data privacy and trust in the government regarding handling sensitive personal data, as overall public trust in government remains low. Finally, while Romania has made progress towards interoperability including through the national interoperability law, successful implementation will require improved leadership, governance, and support from the central government.

Open government data

In recent years, Romania has made notable progress in open government data (OGD), primarily driven by its open government agenda. The country's 2020-2022 OGP action plan included a dedicated action for open data, which led to advancements in the publication of datasets, fostered engagement between government and civil society institutions, and facilitated the transposition of the EU Open Data Directive. However, the GSG, who is responsible for Romania's open government data policy, has identified several key limitations to data publication, including insufficient dedicated resources at the institutional level, organisational changes within government institutions affecting the sustainability of efforts, the need for a clearer normative framework, and the low priority given to open data publication both politically and technically.

An evident gap is that Romania does not have a formal strategy for OGD, resulting in an uncoordinated approach across public sector institutions. Government awareness and capacity for this policy area are limited and responsibilities within ministries are often unclear, as it can be assigned to civil servants working on very different areas, including IT management or access to information. Consequently, open data efforts are missing elements to bring coherence and alignment across the public sector.

Romania can also progress in making more high-value open data available and accessible to the public. Currently, there are relatively few datasets in high value categories, as defined by the OECD, that are available in open data format (around 20%). While Romania performs well in some high-value data categories, like statistics, in others, including geospatial data, mobility, and government finances, very few datasets are available as open data. The challenge for Romania also lies in maintaining high-quality metadata, timeliness, and access to data through APIs. Promoting data reuse within and outside the government remains underdeveloped, despite new commitments such as workshops and events in the new OGP action plan. Sustainable engagement with stakeholders and monitoring open data's impact are essential steps to drive Romania's open data initiatives forward and ensure their lasting value.

Proposals for action

In light of the key assessments elaborated above, which draw on the main findings and analysis included in Chapter 4 of this review, the Romanian government could consider implementing the following policy recommendations:

6. **Enhance data governance in the public sector.** The following actions can be considered:
    a. Define clear leadership for the data-driven public sector agenda.
    b. Develop a data strategy for the public sector through an open and participatory process.
    c. Ensure access to guidelines to support data management and compliance with new rules across the public sector.
    d. Invest in the recruitment, training, and career development for data professionals within the public sector to reduce dependence on external contractors and enhance internal capacity.
    e. Prioritise trainings on data literacy and foster collaboration among agencies to create a culture where data is valued for improving public services and policymaking.
    f. Facilitate the practical implementation of the new law on interoperability and data exchange, especially concerning governance and co-ordination of base registry data.
7. **Improve the approach to open government data.** The following actions can be considered:
    a. Develop an action-oriented open government data strategy as a sub-set of a broader data strategy to better link the two policy areas.
    b. Continue to raise awareness about open government data at both political and technical levels. Make sure these efforts are integrated into broader data literacy trainings.
    c. Promote better resource management for OGD policies and consider establishing specific roles responsible for overseeing data management and open data within individual organisations – such as data stewards.
    d. Develop user-friendly guidelines for public officials on how to publish open data while complying with existing rules.
    e. Focus on advancing the availability of open government data in high-value data categories defined by the OECD, in particular education, crime and justice, but also earth observation and environment, government finances and accountability, and geospatial and mobility data.
    f. Work to improve metadata quality and timeliness of data publication and invest in the provision of APIs as part of an upgrade of Romania's data infrastructure.
    g. Establish engagement mechanisms with potential data re-users in the ecosystem through formal partnerships with civil society organisations or industry associations.
    h. Monitor the use and impact of the publication of open government data taking into consideration costs and benefits in different categories (e.g., social benefits, economic benefits, public sector performance) that are both tangible and intangible, direct and indirect, short-term and long-term. Prioritise targeted assessments of high-value data categories as a first step.

Service design and delivery in the digital age

Philosophy of service design and delivery

The philosophy and culture of service design and delivery are key to creating a sustainable environment where inclusive digital transformation and quality services thrive. Effective user experiences are those that are straightforward, date-driven to anticipate and proactively manage processes that previously required additional steps. This begins with designing services that consider the needs of all users of society, especially those in vulnerable groups requiring additional support. Achieving this involves having the right leadership and vision that facilitates collaboration across the public sector and stakeholders to fully comprehend challenges and create end-to-end user experiences.

Currently, Romania lacks centralised leadership capable of articulating a shared vision and strategic approach to designing and delivering user-driven, proactive and inclusive public services suitable for the digital age. While the ADR under co-ordination of the MCID spearheads digital transformation of the public

sector, its mandate primarily focuses on managing information systems facilitating online service provision. This leadership gap presents a hurdle in designing and delivering public services tailored to diverse user needs.

A central challenge in transforming the design and delivery of public services stems from the wide array of institutions within the Romanian public sector, each at varying levels of digital maturity. Without a shared vision and strategic oversight, this disparity among the public sector institutions can further cause inconsistencies in how services are designed, delivered and experienced by users. In this fragmented service landscape, establishing a standardised and intuitive user journey becomes even more challenging. Moreover, varying digital maturity levels often indicate a lack of data governance, impeding efforts to adopt a cohesive and integrated approach to service design and delivery across the public sector.

In the absence of leadership and a shared vision, in Romania, like in all parts of the world, the COVID-19 pandemic expedited the shift from in-person service provision to remote basis, favouring a “digital by default” approach. Nevertheless, face-to-face interactions at government offices remain to be the most used service channel, followed by the institutional or sector-specific websites and phone communications. Additionally, more traditional forms of written communication such as letters and printed forms are still preferred by users.

Setting an enabling environment for the digital transformation of public services

Uniform guidelines and standards as well as digital public infrastructure are vital for ensuring a consistent approach to the digitalisation of government services, helping design and provide services that enable a cohesive experience for users. In Romania, the ADR is responsible for supporting service providers in their digitalisation journey through the implementation of a Government as a Platform approach, however this role is not fully leveraged for the issuance of supporting guidelines and standards to enable a coherent digital transformation of the government.

The absence of a common vision and strategy for service design and delivery results in a limited availability of common guidelines and standards for the public sector. Given the dominant legalistic culture in the Romanian public sector, regulatory frameworks play a significant role in shaping policy operationalisation and are not often complemented by actionable guidelines and standards that equip service teams to implement them. In the context of the implementation of EU funds and ambitions to design a new digital government strategy, the existing remit of the ADR do not fully acknowledge this entity's role in issuing supporting guidance to service teams.

The limited availability of guidelines and standards on agile management, ICT procurement, service design and user research may deepen the digital gap within the Romanian public sector where disparities exist in terms of digital government maturity (e.g., challenges to attract and retain digital talent, to use EU funds for the digital transformation).

Similar challenges are observed in the development of common digital tools for the digitalisation of government services. Romania is advancing with the implementation of core digital government infrastructure, notably the Government Cloud initiative, the National Interoperability Framework, and the national digital identity system in line with EU eIDAS, all under the responsibility of the ADR. Altogether, these initiatives aim to establish an ecosystem of common tools to equip service teams to transform government services and deliver results that are more proactive and driven by user needs. However, more robust governance models and supporting guidance are needed to make sure that technology developments realise their benefits and contribute to a human-centric and coherent digital transformation in the whole government. Additionally, Romania is giving less attention to other key pieces of digital public infrastructure that are critical for a seamless and convenient experience of users with service delivery, including digital notifications and payments.

Proposals for action

In light of the key assessments elaborated above, which draw on the main findings and analysis included in Chapter 5 of this review, the Romanian government could consider implementing the following policy recommendations:

8. **Establish a shared vision and strategic approach to public service design and delivery across the public sector.** The following actions can be considered:
    a. Strengthen the mandate of the ADR and the MCID together with the GSG to ensure coherent and sustainable public service design and delivery in Romania.
    b. Develop a comprehensive strategic document on service design and delivery, emphasising shared vision, objectives and concrete actions to ensure a coherent approach across the public sector in line with the dedicated digital government strategy.
    c. Involve diverse stakeholders, including public and private sectors, as well as civil society representatives, in the development and implementation process to ensure the approach is inclusive and representative of a wide array of perspectives.
    d. Conduct capacity-building programmes and awareness campaigns to enhance the importance of coherent service design and delivery.
    e. Facilitate collaboration across the public sector through inter-ministerial co-ordination carried out by the GSG to align efforts and synchronise actions towards the common goal of coherent and sustainable service design and delivery.
    f. Create a community of practices to encourage knowledge sharing, peer learning and re-use of best practices.
9. **Promote an omnichannel approach to ensure a seamless public service experience for service users.** The following priorities can be considered:
    a. Embed an inclusive "digital by design" approach to service design and delivery in a future digital government strategy to resist the exclusive adoption of a "digital by default" approach.
    b. Engage users through surveys, public consultations and feedback mechanisms to understand their preferences for service channels and incorporate their feedback into the policymaking cycle.
    c. Organise design thinking workshops involving relevant stakeholders to co-develop a service design approach that streamlines the entire service cycle, by eliminating barriers and encouraging a data-driven approach.
10. **Secure the development and use of common guidelines and standards to support service design and delivery.** The following actions can be considered:
    a. Expand the mandate of the ADR including provisions to secure the quality, convenience and user-centricity of government services, such as issuance of practical guidance and standard setting.
    b. Develop an ecosystem of guidelines and standards to equip public service providers in the implementation of digital government regulatory frameworks such as those related to government cloud, interoperability and digital identity.
    c. Co-develop a dedicated service standard to establish common principles and procedures across the public sector and actively promote its adoption and use by public sector institutions.
    d. Leverage the expertise and experience of more mature public sector institutions to develop supporting guidance instruments in key areas such as user research, service design, ICT procurement and agile management.
    e. Implement a communication plan with activities aimed to secure that enabling guidelines and supporting guidance for service transformation are well communicated across the Romanian public sector.
11. **Promote the development of a robust and sustainable ecosystem of digital government infrastructure.** The following actions can be considered:
    a. Intensify ongoing efforts for the implementation of core digital government infrastructure, including government cloud, interoperability framework and digital identity.
    b. Secure a robust and collaborative governance framework for the government cloud initiative, including binding co-ordination mechanisms across policy sectors.

c. Articulate the implementation of the government cloud initiative with broader policy goals in Romania to secure internal buy-in and legitimacy among public and private stakeholders.
d. Leverage the policy window of the implementation of the government cloud and the interoperability framework to introduce reforms to other digital government enablers such as ICT procurement.
e. Strengthen the co-ordination for and governance of digital identity between the ADR and the Ministry of Internal Affairs to secure that digital identity solutions are consistent, human-centric, and interoperable.
f. Consider the development of other critical digital government infrastructure such as a digital notification system for the Romanian public sector, tapping on international collaboration and existing global digital public goods.

2 Governance for digital government

In line with Pillar 2 and 3 of the OECD Recommendation on Digital Government Strategies (OECD, 2014[1]), Chapter 2 analyses the governance of digital government in Romania, examining the contextual factors and institutional models that support the digital transformation of the public sector. The chapter is divided into six sections: the first section reviews the country's overall political and administrative culture, the second section examines the socio-economic factors and technological context, the third section analyses the macro-structure and leading organisation of the public sector, and the fourth section focuses on existing co-ordination and compliance arrangements to ensure the sustainability of the digital transformation. Additionally, the chapter also discusses Romania's digital government strategy and its relevance across the public sector.

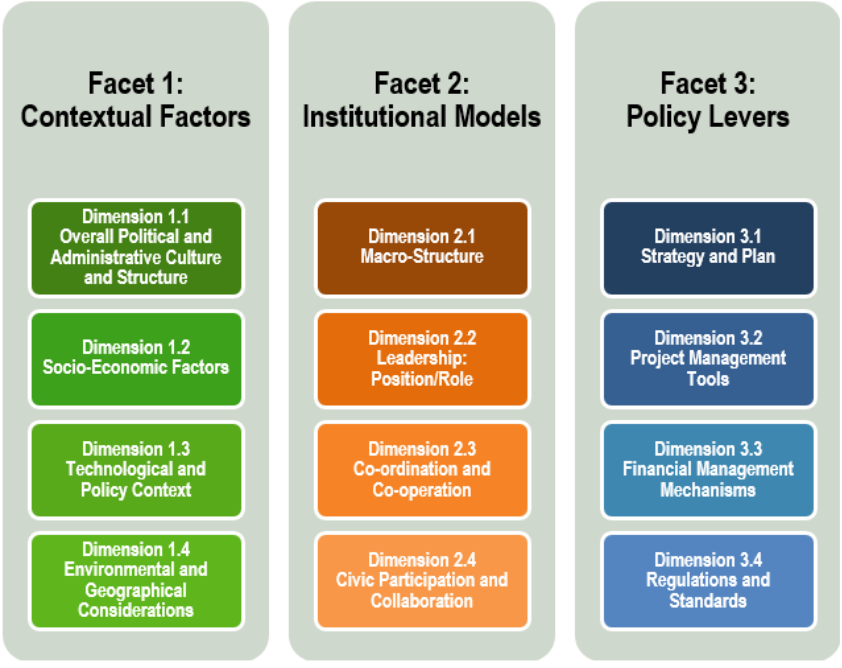
Introduction

In the face of unforeseeable risks, the importance of resilience, responsiveness and agility in government cannot be overstated in today's world. Governments around the world have recognised the need to prioritise the strategic use of digital technologies and data to mitigate potential risks and turn challenges into opportunities. The digital transformation of the public sector has been a key driver of innovation and socio-economic growth in many countries around the world. Nevertheless, to ensure that this digital transformation is effective and sustainable, it is essential to have robust governance for digital government in place.

Effective governance is a critical factor in driving coherent and sustainable change across the public sector. It promotes an inclusive and collaborative digital ecosystem that involves all relevant stakeholders, while also driving a cultural shift from siloed thinking to a strategic systems approach. Such governance is necessary for the design and delivery of citizen-driven policies and services. Additionally, robust governance helps governments address risks and challenges associated with digital government, such as ensuring ethical use of digital technologies and data, building a digitally competent workforce, and mitigating cybersecurity threats.

According to the OECD Digital Government Index 2019 (OECD, 2020[2]), strong governance is crucial for the development of digital government. This governance framework supports the necessary cultural shift from a siloed mindset to a strategic, systems-thinking approach, and it establishes the institutional foundations required for designing and delivering citizen-centric policies and services. The E-Leaders Handbook on the Governance of Digital Government (OECD, 2021[3]), which is based on the OECD Recommendation of the Council on Digital Government Strategies (OECD, 2014[1]), provides a framework that enables governments to improve their digital governance by asking key policy questions. The handbook draws on the experiences of OECD member and non-member countries to assist policymakers in developing and implementing digital government strategies, resulting in a mature and digitally enabled state (Figure 2.1).

Figure 2.1. The OECD Framework on the Governance of Digital Government



Source: OECD, (2021[3]), *The E-Leaders Handbook on the Governance of Digital Government*, https://doi.org/10.1787/ac7f2531-en

The *OECD Framework on the Governance of Digital Government* consists of three crucial components (applied to the Romanian context and analysed in Chapter 2 and 3):

- *Contextual Factors* which refer to country-specific characteristics such as political, administrative, socio-economic, technological, policy and geographical factors that should be considered when designing policies for an inclusive and sustainable digital transformation of the public sector.
- *Institutional Models* which consist of various institutional structures, approaches, and mechanisms in the public sector and digital ecosystem that help guide the design and implementation of digital government policies in a sustainable manner.
- *Policy Levers* which enable governments to ensure a coherent and effective digital transformation of the public sector.

This chapter will examine the governance of Romania's digital government in five main sections, according to the three facets of the Governance Framework (see Figure 2.2, Figure 2.3 and Figure 2.4). The initial part analyses the overall political and administrative culture, encompassing aspects like the country's power structure, political stability, and support for the digital transformation agenda. The subsequent section delves into socio-economic factors and the technological landscape of the country, encompassing elements such as digitalisation levels among the population and the overall maturity of digital government. The third section evaluates the macro-structure and the leading organisation within Romania's public sector. Following that, the fourth section concentrates on existing co-ordination and collaboration mechanisms that ensure coherence and sustainability in the digital transformation of the public sector. The final part examines Romania's digital government strategy and its significance throughout the public sector.

Figure 2.2. The OECD Framework on the Governance of Digital Government - Contextual Factors

Source: OECD, (2021[3]), *The E-Leaders Handbook on the Governance of Digital Government*, https://doi.org/10.1787/ac7f2531-en

Figure 2.3. The OECD Framework on the Governance of Digital Government - Institutional Models

Source: (OECD, 2021[3]), *The E-Leaders Handbook on the Governance of Digital Government*, https://doi.org/10.1787/ac7f2531-en

Figure 2.4. The OECD Framework on the Governance of Digital Government – Policy levers

Source: OECD, (2021[3]), *E-Leaders Handbook on the Governance of Digital Government*, https://doi.org/10.1787/ac7f2531-en

Overall political and administrative culture

The political and administrative culture of a country plays a significant role in shaping how digital government is governed. Governments need to consider these unique characteristics when developing a governance framework that aligns with their specific national context. These characteristics bring both opportunities and challenges for governments when formulating and executing national strategies for digital government.

Romania is a constitutional republic with a democratic, multiparty parliamentary system with a resident population of approximately 19 million (National Institute of Statistics, 2022[4]). Romania follows a semi-presidential model where power is shared between the President, who serves as the head of state, and

the Prime Minister, who is the head of government. The legislative branch consists of the Parliament, which is a bicameral institution comprising the Senate and the Chamber of Deputies.

According to the Constitution, Romania is a unitary state with a two-tier system of subnational governments. It is administratively divided into communes, towns and counties. With the enactment of the 2006 decentralisation law, Romania has taken significant actions towards administrative and fiscal decentralisation. Nevertheless, the government remains centralised in terms of fiscal control, and the central ministries and agencies still hold de facto power over subnational governments, despite them having responsibilities based on the decentralisation principles. As the extent of local decision-making autonomy is contingent upon the financial and human resource capabilities, many smaller administrative-territorial units face financial constraints due to ongoing expenses and staffing costs. The lack of unified co-ordination has created barriers in fully realising this long-standing process of decentralisation (European Commission, 2021[5]).

In addition to the decentralisation effort, wide administrative reforms have been implemented to increase the effectiveness of the country's public administration. Nevertheless, the progress has been slow. According to the Worldwide Governance Indicators, Romania's public administration is substantially below the average effectiveness of its 27 European peers ((World Bank, 2021[6]). The frequent changes in the organisational structure and leadership positions have impeded institutional stability, the development of administrative capabilities, and sustainability of government initiatives, thus the expected outcome of the long-term reform agenda. In Romania, since the introduction of "emergency ordinances" in 2005, the government has frequently relied on them for policy- and decision-making to bypass the formalities and delays. This practice contributed to the culture of implementing policies without a solid analytical foundation, inclusive consultations and impact assessments. In addition, the excessive fragmentation of responsibilities and resources remains a significant obstacle to the effective design and delivery of government services (European Commission, 2022[7]). During the review process for the Digital Government Review of Romania, a few interviewees have echoed this assessment based on their ongoing challenges.

In general, Romania's current political and administrative culture poses some significant challenges for the government to drive the digital transformation of the public sector in a coherent and sustainable manner. The slow administrative reform including the administrative and fiscal decentralisation of the subnational governments has created barriers for the government to create consensus, alignment and co-ordination to develop digital government maturity across the public sector. Frequent changes in organisational structure have weakened the digital leadership in the government to co-ordinate and align policies and actions on digital government across the country. In addition, high reliance on emergency ordinances have led to policies and decisions with minimal impact. The Romanian recovery and resilience plan (RRP) includes ambitious plans and investments to address these challenges. It is recommended to assess and monitor the implementation of the wider public administration reform agenda to better address its potential impacts on building the governance needed to drive the digital transformation across the public sector.

Socio-economic factors and technological context

When governing the digital transformation of the public sector, a comprehensive understanding of the socio-economic and technological context would result in further contribution to economic and social development. Effective governance should consider factors such as the general economic conditions, the existing level of digital advancement within society, the demographic makeup of the population, and the country's historical, current, and future technological advancements. By taking these factors into account, governments can better align digital transformation efforts with the specific needs and opportunities of the country.

Over the past two decades, Romania has made remarkable progress in enhancing its economic performance and prosperity. In 2022, Romania experienced robust economic growth of 4.8 percent, driven by strong private consumption and increased investment. However, the COVID-19 pandemic and Russia's war of aggression against Ukraine have further exposed its structural vulnerabilities such as persistent poverty and disparities in economic opportunities, substantial gender gaps in workforce participation and employment, and significant institutional constraints that hinder the efficient use of resources (World Bank, 2023[8]). The 2022 Country Report of Romania of the European Commission also highlights high regional disparities as a key vulnerability for its society and economy. Gaps between the capital and the rest of regions on labour productivity, investment and employment have caused regional disparities to rise (European Commission, 2022[7]).

Romania's population has declined over the recent decade, from 21.6 million in 2002 to 19.0 million in 2022. The second biggest cause, following the high mortality rate, of the population decline is the phenomenon of emigration. In 2021, the balance of international migration was negative with marking 16,000 migrants more than the number of immigrants. Romania has a large population who resides abroad. In the recent data published by the Romanian government, as of 2021, approximately 5.7 million Romanians reside abroad (The Government of Romania, 2022[9]). The population has also aged, with the population aged 0-14 remained unchanged at 15.8%, whereas the proportion of individuals aged 65 and older rose to 19.5% (National Institute of Statistics, 2022[4]).

The Romanian government has taken several steps to strengthen its telecommunication infrastructure. The country is the sixth in the fastest-growing countries for fixed broadband. Since 2019, Romania's National Authority for Management and Regulation in Communications (ANCOM) has operated a mobile unit to increase the internet connectivity across the nation. Nevertheless, Romania still faces a challenge of narrowing the digital gap between the capital and rural areas (International Telecommunication Union, 2022[10]).

At the European level, Romania is still lagging in many aspects compared to its peers. According to the European Commission's Digital Economy and Society Index (DESI) 2022, Romania ranked 27th of the 27 EU member states, with its relative annual growth rate lower than the other 26 countries. Romania underperformed in all four dimensions: Human Capital, Connectivity, Integration of Digital Technology and Digital Public Services. Specially, the government faces considerable difficulties in delivering digital services. The DESI indicators show that both the availability of digital public services for citizens and businesses are quite low compared to the EU average. Moreover, the level of digital interaction between public authorities and the general public remains very low, with only 17% of internet users accessing services digitally (see Table 2.1) (European Commission, 2022[11]). The findings of the UN e-Government Survey 2022 align with the DESI results. Romania ranked 57th among 193 countries, scoring under the regional average on all indices. While the country scored above the sub-regional average on the Telecommunication Infrastructure Index, it was placed well under sub-regional average on the Online Services Index and Human Capital Index (see Table 2.2) (United Nations, 2022[12]).

Table 2.1. Digital Economy and Society Index (DESI) 2022: Romania's performance

	Human Capital (Digital Skills)	Connectivity	Integration of Digital Technology	Digital Public Services
Avg. of 27 EU countries	45.7	59.9	36.1	67.3
Romania	**30.9 (27)**	**55.2 (15)**	**15.2 (27)**	**21 (27)**

Source: European Commission, (2022[11]), Digital Economy and Society Index 2022 Romania country profile, https://ec.europa.eu/newsroom/dae/redirection/document/88717

Table 2.2. UN E-Government Survey 2022: Romania's performance

	Rank	E-Government Development Index (EGDI)	Telecommunication Infrastructure Index (TII)	Online Services Index (OSI)	Human Capital Index (HCI)	E-Participation Index (EPI)
Romania	57	0.76190	0.79540	0.68140	0.80900	0.62500

Source: United Nations, (2022[12]) UN E-Government Survey 2022, https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

The prospect seems brighter for the private sector, especially the start-up community in the country. Romania's start-up landscape is gaining recognition as one of the most dynamic innovation hubs in Central and Eastern Europe. Fuelled by a rapidly growing IT workforce, the country shows great potential for start-up success. The COVID-19 pandemic has acted as a catalyst, driving a heightened focus on digital technologies among business leaders and investors, creating a favourable environment for the Romanian start-ups in the international arena.

Romania faces several challenges in its socio-economic context for effective digital transformation of the public sector, such as regional disparities, gender gaps, declining population and digital divide. Addressing these challenges would provide Romania a solid foundation for the governance for the digital government. The government can consider developing a whole-of-government strategical initiative to support raising awareness on digital inclusion, upskilling of digital competences and targeted training programmes for certain demographics. It is highly recommended that the government gives a special attention on rural areas to close the gap with the capital. The consolidated approach would help the government better leverage the investments in the RRP allocated to "Increasing digital competence for public service and digital education throughout like for citizens". In regard to the technological context, although Romania has made good progress on the telecommunication infrastructure and connectivity, several challenges remain in transforming towards a mature digital government. Especially, the government needs to concentrate its efforts in building digital competencies of the public sector, embedding a digital mindset across the public sector. This would enable the public sector to appreciate the value of designing and delivering services that put users' needs at the core. There is also an opportunity to tap into the potential of the private sector, including the local start-ups, to design and deliver innovative and agile services to users through fostering a healthy govtech ecosystem.

Macro-structure and leading public sector organisation

A sustainable and effective digital transformation in the public sector relies on a well-defined institutional model. This enables governments to adopt a comprehensive and co-ordinated approach to digital transformation. The formal and informal institutional arrangements play a crucial role in establishing a strategic vision, providing necessary leadership, and fostering co-ordination and collaboration within the digital government ecosystem. Additionally, these arrangements help governments clarify and systematise institutional and personal leadership roles (e.g. Chief Information Officer, Chief Data Officer) (OECD, 2021[3]).

To fully advance towards digital government maturity, it is essential to have a designated "organisation-in-charge" responsible for leading and co-ordinating the digital transformation agenda across the public sector. This organisation should have clearly defined roles and responsibilities that are recognized and agreed upon by all key stakeholders of the public sector. Considering the different contextual factors, including the country's political and institutional culture, this leading organisation needs to be strategically positioned within the government and equipped with adequate financial and human resources. It should have the authority to garner political support, integrate a digital government strategy into a broader national reform agenda, and gain legitimacy within the public sector (OECD, 2021[3]).

The organisation-in-charge should have decision-making, co-ordination, and advisory responsibilities. It needs to be entrusted to make critical decisions and be accountable for them across the government. Furthermore, it should co-ordinate with other public sector institutions, ensuring alignment between sectoral digital government projects and the national digital government strategy. Lastly, it should provide guidance and advice to other public sector institutions on the development, implementation, and monitoring of digital government strategies (see Box 2.1) (OECD, 2021[3]).

Box 2.1. Roles and Responsibilities of the Organisation-in-Charge

Coordination responsibilities include the horizontal and vertical co-ordination of the development of the national digital government strategy, with other public sector organisations on its implementation and with local governments to align the development of digital government projects with the objectives of the national digital government strategy.

Advisory responsibilities include the provision of counsel and guidance on the development of the national digital government strategy; the monitoring of its implementation; the support of the development and implementation of digital government strategies at an organisational level; the development of technical guidelines for ICT/digital architecture; and horizontal co-ordination among public sector organisations.

Decision-making responsibilities include the powers and duties to make important decisions with considerable accountability across the government, including the prioritisation and approval of ICT/digital government project investments; ex-ante revisions, evaluation and external reviews of ICT/digital government projects; provision of financial support for the development and implementation of ICT/digital government projects.

Source: (OECD, 2021[3]), The E-Leaders Handbook on the Governance of Digital Government, https://doi.org/10.1787/ac7f2531-en

According to the OECD Digital Government Index (DGI) 2019, all 33 participating countries have designated a central-level organisation to lead and co-ordinate decisions regarding digital government. However, the specific institutional structures vary from country to country. Some position this leading organisation within the Centre of Government (CoG) (e.g., Chile, France, and the United Kingdom), while others place it within a specific line ministry (e.g., Estonia, Greece, and Luxembourg) or under a co-ordinating ministry such as finance or public administration (e.g., Denmark, Korea, Portugal, and Sweden) (see Box 2.2).

Box 2.2. Digital Government leadership – Examples from the OECD Member countries

La direction interministérielle du numérique (DINUM) of France

Created in October 2019, DINUM is the inter-ministerial digital directorate that in charge of the digital transformation of the French public sector. It is placed under the authority of the Minister of Transformation and the Public Service under the Prime Minister's Office. The directorate supports the line ministries in their digital transformation and develops shared services and resources such as the national inter-ministerial network (RIE), *FranceConnect* (digital identity service), data.gouv.fr or api.gouv.fr. DINUM also leads the TECH.GOUV program to accelerate digital transformation of the public services in coordination with all line ministries.

Note: This information has been translated from French to English.
Source: (La direction interministérielle du numérique (DINUM), 2023[13]), https://www.numerique.gouv.fr/dinum/

The Ministry for Digitalisation of Luxembourg

The Ministry for Digitalisation was established in December 2018 with a strong political mandate under the government led by Prime Minister Xavier Bettel. It is currently headed by the prime minister. As a line ministry, the MDIGI's role encompasses promoting and implementing ICT and digital strategies within the public sector and at the national level. This is done through collaboration and consultation with other ministries and government agencies. For instance, the MDIGI works closely with the Ministry of the Economy and the Department of Media, Connectivity and Digital Policy (SMC) of the Ministry of State (ME) on various initiatives such as Digital Luxembourg. Together, they oversee activities related to monitoring and promoting the ICT sector, developing digital infrastructure, and formulating strategies for emerging technologies like AI and 5G.

In addition to these shared responsibilities, the MDIGI has exclusive jurisdiction over strategic tasks specifically related to the digital advancement of the public sector. This includes areas such as administrative procedures, digital inclusion, information exchange, high-level coordination, and the Government IT Centre (CTIE).

Source: (OECD, 2022[14]), Digital Government Review of Luxembourg, https://doi.org/10.1787/b623803d-en

The Administrative Modernisation Agency of Portugal

Portugal's digital transformation agency, the Administrative Modernisation Agency (AMA), was created in 2007 and sits within the Presidency of the Council of Ministers. It exercises the powers of the Ministry of State Modernisation and Public Administration in modernisation, administrative simplification and digital government, and is under the supervision of the Secretary of State for Innovation and Administrative Modernisation. The agency has a top role in the development, promotion and support of the public administration in several technological fields and is in continuous contact with focal points at institutions relevant for the implementation of digital government projects. It is responsible for the approval of ICT and digital projects over EUR 10,000 and chairs the Council for ICT in the public administration.

Source: OECD, (2021[3]) *The E-Leaders Handbook on the Governance of Digital Government*, https://doi.org/10.1787/ac7f2531-en

Authority for Digitisation of Romania

In recent years, Romania has experienced challenges in maintaining a consistent and sustainable approach to the digital transformation within the public sector due to frequent changes in government decisions and practices. The responsibility for leading the digital transformation efforts has shifted among various government organisations, leading to a lack of continuity and weakening the overall agenda for digital government. This fluidity in decision-making has hindered the progress and effectiveness of digital initiatives.

Currently, the Authority for Digitisation of Romania (ADR) under the Ministry of Research, Innovation and Digitisation (MCID) has taken up the role of the organisation-in-charge for digital government. Pursuant to the government decision, the ADR has a mandate to strategically plan and ensure the development and implementation of policies of digital transformation across the public sector (Box 2.3) in close collaboration with the General Secretariat of the Government (GSG).

Box 2.3. Objectives and functions of the Authority for Digitisation of Romania

Objectives

1. Contribution to the digital transformation of the Romanian economy and society.
2. Achievement of electronic government in public administration through standardization, technical and semantic interoperability of information systems, and adherence to the principles of the Tallinn Ministerial Declaration on electronic government.
3. Support for the fulfillment of Romania's objectives under the financial assistance programs of the European Union in its area of competence.

Functions

1. Strategy: the ADR strategically plans and ensures the development and implementation of policies related to digital transformation and the information society.
2. Regulatory: the ADR regulates and participates in the development of the normative and institutional framework for digital transformation, including ensuring interoperability of IT systems in public institutions.
3. Approval: the ADR has an approval function within its jurisdiction.
4. Representation: the ADR represents the government in national, regional, European, and international bodies and organizations, acting as a state authority in its field of activity.
5. State authority: the ADR monitors and ensures compliance with regulations within its area of competence.
6. Administration and management: the ADR handles administrative and managerial tasks.
7. Promotion, coordination, monitoring, control, and evaluation: the ADR promotes, coordinates, monitors, controls, and evaluates the implementation of policies in its field, including the national interoperability framework.
8. Communication: the ADR facilitates communication between public sector structures, private sector, and civil society.
9. Implementation and management of projects: the ADR implements and manages projects funded from European and national sources.
10. Intermediate body: the ADR acts as an intermediate body for the implementation of measures under specific programs, such as the Sectoral Operational Program for "Increasing Economic Competitiveness" and the Operational Program "Competitiveness."

Source: (Authority for Digitisation of Romania, 2023[15]), *Decision regarding the organisation and operation of the Authority for Digitisation of Romania*

The ADR was created in 2020 with the aim to accelerate the country's digital transformation and promote the development of the information society. Its primary role has been co-ordinating and managing information systems that facilitate the provision of e-government services such as the eGovernment Portal and the Electronic System for Public Procurement. Another significant task of the ADR is streamlining administrative procedures for service providers and achieving interoperability at both national and European levels.

As a relatively new organisation, the ADR struggles to gain legitimacy and authority from public sector institutions with little interest from the highest leadership. Despite its mandate set in the government decision, its current roles and responsibilities are primarily focused on providing technical support to other

government entities with their digital initiatives, rather than being seen as the leading organisation driving transformative changes across the public sector. Consequently, during the fact-finding interviews for this review, many institutions perceived the ADR as more of a supporting institution rather than a central driving force for digital government.

The OECD peer review team also found that the ADR lacks many aspects of the decision-making and co-ordination roles and responsibilities. The ADR has insufficient power to create horizontal co-ordination with the public sector institutions and alignment with the subnational governments. This has resulted in fragmented efforts and duplication of initiatives, as well as a disconnect among the national, institutional and subnational priorities. In addition, the ADR's limited decision-making power across the government has contributed to weakened oversight and accountability, potentially leading to the misallocation of resources and the persistence of underperforming initiatives.

Romania needs to establish robust governance for digital government to drive the digital transformation across the public sector and to converge towards its European peers. The foremost challenge would be empowering the organisation-in-charge to have the strategic leadership and co-ordination of the digital government agenda. In this regard, it is highly recommended that the government consider positioning the ADR within the GSG where it can receive stronger political support and gain legitimacy to set a shared whole-of-government vision. In addition, this would create more synergies on the cross-cutting policy areas such as open government and de-bureaucratisation, which are under the responsibilities of the GSG.

Additionally, as the ADR takes the lead on the National Interoperability Law, there is a valuable opportunity for it to become a digital leader and strategic partner to the Romanian public sector institutions. Collaborating with the GSG, the ADR needs to establish the holistic vision for digital government supported by public institutions. This vision can be accompanied by a central digital government strategy that defines clear objectives, roles, and responsibilities for key stakeholders.

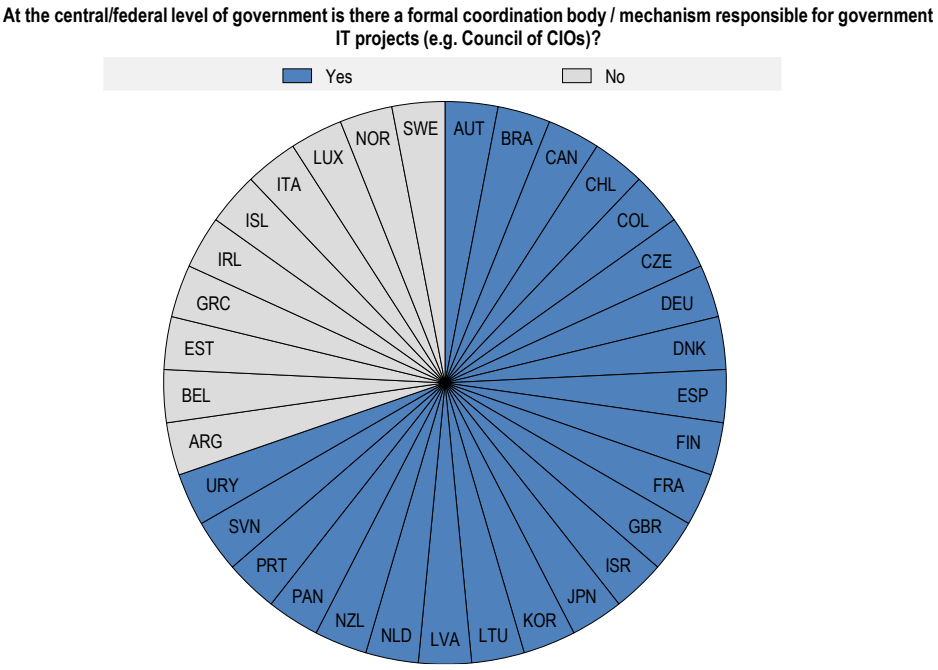
Co-ordination and co-operation

Effective co-ordination and collaboration are vital for achieving coherency, consistency, and effectiveness in the digital transformation of the public sector. By adopting a holistic approach and moving away from siloed thinking within individual institutions, governments can ensure sustainable impact on society. All stakeholders must work together, setting and agreeing on common objectives and action plans, in order to fully harness the benefits of digital transformation. A collaborative and cooperative culture across the public sector promotes coherent policy design, development, implementation, and monitoring, while preventing potential policy gaps and fostering an inclusive policy ecosystem. Furthermore, it facilitates the exchange of knowledge, experience, and lessons learned, thereby encouraging innovative practices in the public sector.

The *OECD Framework on the governance of digital government*, aligned with the second pillar of *the OECD Recommendation of the Council on Digital Government Strategies*, identifies co-ordination and co-operation as key dimensions in building sound governance for digital government (OECD, 2014[1]) (OECD, 2021[3]). The framework examines further into two layers of co-ordination: *High-Level Co-ordination*, which emphasizes institutional co-ordination at a high political and administrative level, and *Organisational and Technical Co-operation*, which focuses on co-operation at a more technical level.

The *OECD Digital Government Index 2019* (DGI) emphasises the significance of establishing a digital government co-ordination unit within institutional models. Such a unit ensures leadership, co-ordination, necessary resources, and legitimacy to translate policies into actionable and tangible public services (OECD, 2020[2]). According to the DGI 2019, the majority of top-performing countries, accounting for nearly 70%, reported having a formal co-ordinating body or mechanism responsible for government IT projects, such as a Council of CIOs (Chief Information Officers) (see Figure 2.5).

Figure 2.5. Existence of a public sector organisation leading and co-ordinating digital government in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Türkiye and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index.
Source: OECD, (2020[2]), Digital Government Index: 2019 results, Question 59 "Is there a public sector organisation (e.g. Division, Unit, Agency) responsible for leading and co-ordinating decisions on digital government at the central /federal level of government?", http://dx.doi.org/10.1787/4de9f5bb-en.

In Romania, the Committee for e-governance and red tape reduction (CERB) co-ordinates the implementation of digital transformation of the public sector with the support from the GSG. The Committee led by the prime minister is composed of high-level representatives from 27 public institutions. The Committee is mandated to ensure coherence in the implementation, co-ordination, monitoring and evaluation of "e-government" policies; to facilitate inter-ministerial co-ordination for implementing, administering and operating electronic public services; and to provide a compliance framework for common technical standards and regulations in this domain. The Committee meets every six months to discuss the agenda items prepared by the GSG based on proposals from the members. The Committee is expected to report periodically to the prime minister on its activities and progress.

The CTE, led by the president of the ADR, serves as a technical committee that offers support in the development and monitoring of the national policy for digital government transformation. Established in 2002, the primary objective of the CTE is to ensure information system interoperability and eliminate duplication of funding and functional overlaps across projects. This technical committee reviews the technical aspects of ICT/digital project proposals submitted by central government institutions, providing recommendations for approval to the higher committee.

Based on the interviews conducted by the OECD peer review team, it is evident that the two committees, namely the Committee for e-governance and red tape reduction and the CTE are widely acknowledged by almost all public sector institutions. Nevertheless, despite their high visibility, doubts regarding their effectiveness persist among many institutions, especially for the Committee for e-governance and red tape reduction. Multiple interviewees expressed concerns that the inter-ministerial co-ordination mechanism has not been effective in facilitating communication and co-ordination among various stakeholders. This

has led to a lack of alignment and coherency which are crucial for the successful digital transformation of the public sector. Consequently, the diminished influence of the committee has resulted in disengaged participation from their members.

Overall, Romania has laid a good foundation for co-ordination and co-operation in digital transformation through establishing the high-level inter-ministerial committee and the technical committee. To fully leverage the potential of this co-ordination mechanism, it would be valuable for the government to take concrete measures that solidify co-ordination processes, ensuring coherence and sustainability of the digital transformation agenda across the public sector. It would be vital for fostering a more inclusive and impactful digital government agenda.

The Romanian government should prioritise fostering a collaborative mindset among stakeholders by facilitating collaboration and communication among practitioners at a technical level. This approach can promote knowledge sharing, institutional learning, and build trust among organisations. By breaking down silos and encouraging information exchange, barriers to achieving a coherent and sustainable implementation of the digital government agenda can be overcome. To support this, it is recommended to establish platforms that enable effective collaboration and sharing of best practices across the public sector (Box 2.4). In addition, the ADR can consider strengthening its monitoring and impact assessment functions to ensure the effective implementation of the digital government strategy. By actively tracking and measuring the outcomes and impact of digital initiatives, the ADR can provide valuable insights and adjustments to enhance their effectiveness.

Box 2.4. Communities of practice of the OECD countries

Digital.gov Communities of Practice of the United States of America

The U.S. General Services Administration operates communities of practice across government for practitioners to collaborate and share resources to build better digital experience for users. There are seven official and 21 unofficial communities on thematic areas from user experience, the use of plain language to artificial intelligence.

Source: The U.S. General Services Administration, (The U.S. General Services Administration, 2023[16]), Communities of practice

Communities of practice in the Australian government

Organised by the Digital Transformation Agency, communities of practices bring together practitioners working in the same field to share ideas, share experiences and solve problems. Currently, there are ten communities active.

Source: The Australian Government (Digital Transformation Agency of Australia, 2023[17]), Communities of practice

During the review process, the OECD peer review team found limited evidence of effective co-ordination and collaboration between the central and subnational government institutions, resulting in missed opportunities for collaboration (OECD, 2022[18]). To address this, the government can enhance its co-ordination efforts by implementing structured and regular co-ordination meetings with subnational digital leaders. This can be achieved through collaboration between the ADR and the Ministry of Internal Affairs, which provides shared services, tools for the subnational governments, and leads the county council meetings. The regular meetings would enable Romania to steer a more cohesive and inclusive digital transformation agenda, extending its impact to the subnational level. These meetings would also provide a platform to identify the specific needs of subnational governments and foster collaboration among them. For instance, taking inspiration from Korea's Framework Act on Intelligent Informatization, which

established a co-ordination council composed of central administrative bodies and local governments, Romania can establish a similar mechanism for effective co-ordination and collaboration (see Box 2.5).

Box 2.5. Korea's Consultative Council of Intelligent Informatization Officers

Framework Act on Intelligent Informatization

Article 9 (Consultative Council of Intelligent Informatization Officers)

(1) The heads of central administrative agencies and the heads of local governments (referring to the Special Metropolitan City Mayor, Metropolitan City Mayors, Special Self-Governing City Mayors, Do Governors, Special Self-Governing Province Governor) shall establish and operate the Consultative Council of Intelligent Informatization Officers (hereafter in this Article referred to as the "Consultative Council") comprised of the Minister of Science and ICT, the Minister of the Interior and Safety and intelligent informatization officers for such purposes as efficiently promoting policy measures for the intelligent information society and intelligent informatization projects, exchanging necessary information, and consulting on relevant policy measures.

(2) The Consultative Council shall be co-chaired by the Minister of Science and ICT and the Minister of the Interior and Safety.

(3) Matters necessary concerning consultation and operation of the Consultative Council shall be prescribed by Presidential Decree.

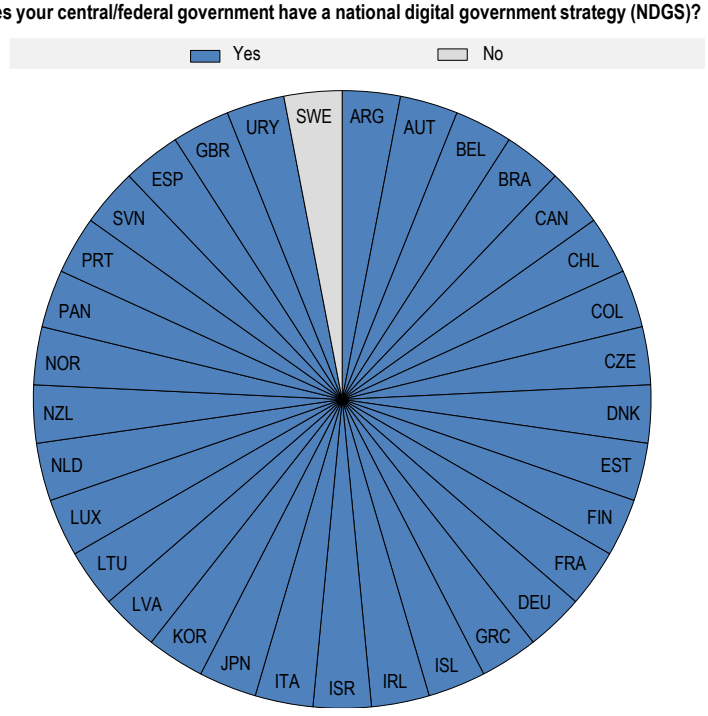
Source: Government of the Republic of Korea, (2020[19]), *Framework Act on Intelligent Informatization* – Chapter II

Strategy and plan

To achieve a comprehensive and sustainable digital government transformation across all levels of government, it is crucial to establish a well-defined digital government strategy. This strategy should encompass a strategic vision, clear objectives, and priorities, accompanied by a structured framework and detailed action plans for implementation and monitoring. Furthermore, the strategy should align with broader national agendas or policy priorities (e.g. administrative reform, sustainable development, climate change and environment, education, science and technology). It should also reflect the specific needs and priorities of different sectors of the government.

The OECD Digital Government Index 2019 revealed that nearly all OECD member countries have recognised the significance of a digital government strategy in driving public sector digital transformation (Figure 2.6). While the specific names and formats of these strategies may vary among governments, they serve as guiding documents that outline policy objectives for digital government initiatives. Some governments choose to present their strategies as stand-alone documents, while others integrate them into broader national agendas. The key takeaway is that OECD countries acknowledge the importance of having a well-defined strategy to facilitate progress towards achieving digital government maturity.

Figure 2.6. Existence of a national digital government strategy in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Türkiye and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index.
Source: OECD, (2020[2]), *Digital Government Index: 2019 results*, Question 1 "Does your central/federal government have a national digital government strategy?", http://dx.doi.org/10.1787/4de9f5bb-en.

In 2020, the GSG and the ADR developed a public policy proposal in the field of e-government, the *Public Policy in the field of eGovernment*. Adopted by the government in June 2021, the purpose of the policy is to increase the number of e-government services and enhance the capacity of Romanian public institutions in developing and implementing e-government services. The main issue addressed by this public policy is the limited availability of electronic services that go beyond basic interactions with citizens. This policy centres around 36 key life events that encompass significant public services affecting the lives of citizens and businesses. The document identifies the challenges that Romania faces in the provision of e-government services and lists specific actions to increase the number of electronic services and strengthen the general digital skills of public servants by 2030. It is also complemented by a plan to monitor the implementation of the public policy (Government of Romania, 2020[20]).

Funded by the European Union, the Romanian government is obliged to develop the indicators and monitor the progress on the specific activities under the *Public Policy in the field of eGovernment*. During the meeting of the Committee for e-governance and red tape in April 2022, the ADR presented the findings of initial monitoring of the level of digitisation of life events services outlined in the document. The organisation also shared the plan to conduct this exercise on yearly basis to track the progress of each institution (Authority for Digitization of Romania, 2022[21]).

Although the policy provides a detailed roadmap for Romania to advance towards building more e-government services for users, there are significant gaps for this strategic document to be a digital government strategy that can steer the digital transformation across the public sector. The development of a comprehensive digital government strategy requires a shared vision among all stakeholders. This vision needs to be established through an inclusive process, ensuring the participation of diverse actors and

perspectives. Once the shared whole-of-government vision is set, the future digital government strategy should align with other sectoral and thematic strategies to ensure coherence and support from the wider public sector. Additionally, it is crucial to develop an accompanying long-term investment plan and detailed action plan to ensure continuity, effectiveness, and efficiency in strategy implementation. The detailed action plan needs to clearly outline objectives and responsible bodies, a timeline for expected results, and key performance indicators (KPIs), thereby strengthening implementation efforts and measuring impact. Importantly, all relevant stakeholders need be engaged in this process to ensure their vision and needs contribute to the national digital government strategy.

The absence of such digital government strategy that sets the broader strategic vision beyond e-government services and facilitate the transition from e-government to digital government is a pressing challenge in Romania. Together with the GSG, the ADR can leverage the Committee for e-governance and red tape and the CTE to establish an ambitious vision and clear priorities that are also responsive to specific institutional needs. By ensuring ongoing co-ordination after the development of the strategy, the ADR can continue to track and monitor the progress made by all relevant stakeholders. This approach would ensure that the strategy remains relevant and on track. The recommendations provided in this review can serve as supportive input for this process, as well as the involvement of public institutions in the review process, including their participation in the upcoming workshops would allow for their concerns and priorities to be heard.

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3 Public sector capabilities for government digital transformation

This chapter provides an overview of existing public sector capacities in Romania to effectively deliver the digital transformation of the government, namely through mechanisms to manage digital government investments and the attraction, promotion and development of digital talent and skills in the Romanian public sector.

Introduction

As governments go digital, specific capacities are needed to embed digital transformation into the machinery of government. Effective models and strategies to digitally transform public sectors have incorporated specific mechanisms and procedures to secure that digital government strategies deliver expected benefits, secure value for money, and promote a coherent, integrated and co-ordinated implementation. Similarly, establishing organisational conditions to attract, develop and promote digital talent and skills in the public sector is a pillar for digital government strategies to build upon existing human resource capacities and policies for a successful and effective implementation.

This chapter looks at the panorama of public sector capacities for government digital transformation in Romania, building on existing OECD frameworks that help structure and guide findings and possible areas of improvement across the Romanian public sector.

Management of digital government investments

Introduction

Governments are increasing their expenditure on digital technologies to support the digitalisation of public administrations. Estimations indicate that government spending on IT will increase on average 5.5% during 2023 compared to 2022[1] in line with post COVID-19 trends that have given to digital government a more prominent role in governments' recovery plans (OECD, 2020[1]). Romania is not the exception as observed in the EU Recovery and Resilience Plan (RRF), with 21% of the total budget allocated to the digitalisation of public administration totalling EUR 1.5B[2]. The digital government component of Romania's RRF includes resources to digitalise key policy areas such as justice, social protection, public procurement, civil service management as well as to advance key digital public infrastructure such as the government cloud infrastructure by the Ministry of Research, Innovation and Digitalisation (MCID) and the Authority for Digitisation of Romania (ADR)3; or digital identity with the leading role the ADR and the key involvement of the Ministry of Internal Affairs as custodians of the national identity system and related base registries (European Commission, 2022[2]).

The vast financial resources devoted to digital government demands strong public sector capacities to plan, execute and monitor investments in ways that secure that expected results and outcomes are delivered. The OECD has been supporting member countries to strengthen their ability to manage and address the financial implications of government digital transformation efforts through the Framework on Digital Government Investments (OECD, forthcoming[3]). The Framework builds on specific provisions of the OECD Recommendation of the Council on Digital Government Strategies to guide governments for an agile and cost-effective implementation of digital transformation policies, as well as on previous work developed by the Secretariat on business cases, ICT procurement and commissioning, and measuring digital government (Government Digital Service, 2019[4]; Digital Transformation Agency, 2015[5]).

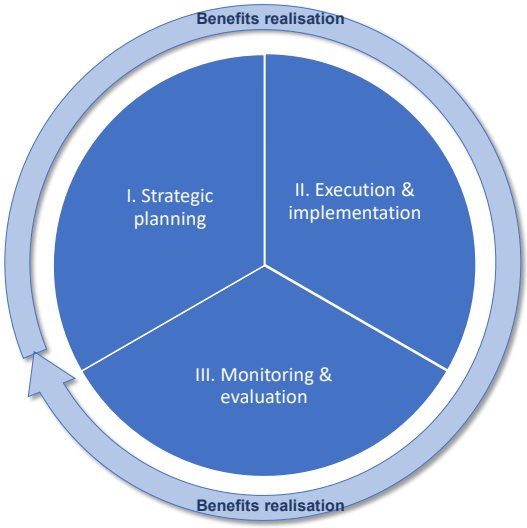
Building on the OECD Recommendation of the Council on Digital Government strategies to foster government capacities to be digital by design (OECD, 2014[6]), the OECD Framework for Digital Government Investments identifies three pillars and policy instruments needed for a coherent and systemic approach to take strategic decisions on investments and spend on digital government, which also inform the structure of this section (see Figure 3.1):

- **Strategic planning**: public sector capacities for co-ordination and collaboration between relevant authorities, planning, value proposition, and risk management/mitigation mechanisms.
- **Execution and implementation**: public sector capacities for investments' management and prioritisation (including portfolio approach), funding sources and models, project management, public procurement mechanisms and practices, and govtech policies.

- **Monitoring and assessment**: public sector capacities for investment accountability and progress monitoring; policy evaluation and return on investments; and end-user assessment.

Figure 3.1. The OECD Framework for Digital Government Investments

Three pillars for coherent and whole-of-government management of investments on digital government



Source: OECD (forthcoming[3]), *Framework on Digital Government Investments*.

Strategic planning

In Romania, the planning for digital government is a shared task between the Committee for e-Governance and Red-Tape (*Comitetului pentru e-guvernare și reducerea birocrației*, CERB), as an inter-ministerial co-ordination entity under the Office of the Prime Minister and co-ordinated by the General Secretariat of the Government (GSG), and the Authority for Digitisation of Romania (ADR) at the MCID. However, as outlined in Chapter 2, the existing governance for digital government poses some challenges regarding the specific roles and clear co-ordination mechanisms for digital government in the country in terms of strategic and technical responsibilities for the implementation of the NDGS, which in turn have direct implications in the capacities the government has for co-ordinating and managing digital government investments in a coherent and whole-of-government way.

The responsibility for the strategic planning on government digital transformation is under the remit of the CERB[4]. The decision from the Office of the Prime Minister for the creation of the Committee in 2021 indicates that the functions and roles of the CERB include:

- Establishing a co-ordination mechanism including all institutions responsible for the implementation, administration, and operation of digital public services.
- Setting a framework for discussing main initiatives, measures, and projects regarding government digital transformation to ensure compliance with common technical standards and regulations.
- Securing coherence in the co-ordination, monitoring and evaluation of the way of the government implements the digital government policy.
- Prioritising and validating proposals regarding digital government and the operation of digital public services at the level of the institutions responsible for the implementation, administration, and operation of these services.

Before the COVID-19 pandemic, the CERB convened regularly to discuss key projects and prioritisation of digital government initiatives, including administrative simplification and government services agendas, which were paused during and after the pandemic. However, the CERB does not have a comprehensive mechanism or model in place to process, prioritise and follow-up on selected initiatives as indicated by several interviewees during the fact-finding mission. The CERB often operates as a show-and-tell space for the GSG and the ADR to provide updates on relevant initiatives and gather feedback from participant public sector institutions but does not have an organic functioning that enables decision-making and prioritisation on key initiatives.

On the other hand, the remit of the ADR is mostly technical covering initiatives on digital government as well as digital economy and society. The ADR originates at the Ministry for Communication and Information Society and was later transferred to the Office of the Prime Minister (funded with GSG's budget). In 2020, digital government technical teams were transferred to the MCID to better align digital government with the national digital agenda, leaving the strategic co-ordination arm – CERB – at the CoG in the GSG given its acknowledged capacity to convene and enforce policy agendas. The mandate of the ADR includes approval of ICT digital projects prior to budget allocation and contracting procedures through the **Technical-Economic Committee for the Information Society**[5] (*Comitetul Tehnico-Economic pentru Societatea Informațională*, CTE) (see Box 3.1)**.** The CTE is a two-tier structure which includes a high-level management composed by authorities from different public sector institutions, as well as a technical evaluation team composed by technical experts from the ADR as well as from relevant public sector institutions. The CTE assesses the pertinence of project proposals and their adherence to national and EU priorities for their approval and further implementation. Only projects above the budget threshold of 2,000,000 LEI enter the project approval pipeline.

The existing governance for planning digital government investments shows limited coherence and consistency with a whole-of-government and cost-effective approach observed across OECD Member countries. The CTE does not operate in co-ordination with the CERB to define a common framework for project prioritisation, approval, funding and monitoring. The limited integration between the activities of the CERB and the ADR's CTE results in two parallel agendas that are not necessarily aligned and do not secure coherence in managing digital government investments. This includes limited integration and co-ordination of cross-cutting projects and duplicated efforts, reducing the possibilities for horizontal collaboration between public sector institutions with common needs beyond informal trusted connection in specific institutions.

The existing system in place through the CTE does not address digital government investments from an end-to-end approach, limiting ADR's existing capacity to secure return on investments and benefits realisation. Currently, the ADR does not have competencies nor mechanisms to enforce the adoption of digital investments tools and guidelines that promote a coherent planning and prioritisation of projects. In a context of limited enforcement, shadow IT costs and duplicated spending may expand in the Romanian public sector given the number of projects that are not assessed by the system, creating further legacy issues and limited integration that further deepen a silo-based approach for digitalisation of the public sector (*e-government*).

In this regard and in line with the recommendations to strengthen the governance for digital government, Romania could consider embedding clearly outlined mandates and responsibilities for the CERB and the CTE under a single and coherent process that integrates project value proposal, prioritisation and approval and that serves to collect and manage strategic information regarding investments on digital government. OECD countries are advancing in this regard, for instance Luxembourg that have created a two-layer governance model for digital government that includes clear mandate and responsibilities to co-ordinate investments on digital government (see Box 3.2).

Box 3.1. ADR's Technical-Economic Committee

To oversee the development and monitoring of the Romanian Government's policy in information technology and its alignment with European policies, the Authority for the Digitalisation of Romania is supported by the Technical-Economic Committee for the Information Society, composed by

- The president from the Authority for Digitalisation of Romania.
- Four vice presidents with roles in information technology, including from the General Secretariat of the Government and one from the Ministry of Transport, Infrastructure, and Communications.
- Permanent members from various ministries like Public Works, Finance, Education, European Funds, Internal Affairs, Health, and others, along with institutions like the Romanian Intelligence Service and the National Agency for Public Procurement.
- Guest members from other public institutions.

For project approval, organisations submit documentation that includes detailed project information, value, funding type, existing infrastructure security, interoperability details, and justifications. The CTE's opinion is considered related to feasibility studies and projects:

- Before the initiation of public procurement contracts for projects exceeding 2,000,000 LEI (excluding VAT) financed from national funds.
- Prior to submitting funding requests for projects exceeding 2,000,000 LEI financed from European funds.

Source: Authority for the Digitalisation of Romania (n.d.[7]), *Technical-Economic Committee,* https://www.adr.gov.ro/cte/ (accessed on 10 August 2023)

Box 3.2. Strategic and technical capacities to define the digital government policy in Luxembourg

Recent developments in the governance of digital government in Luxembourg have strengthened the public sector capacity to manage digital investments and to have a common and concerted policy framework to guide decisions on future investments.

After the creation of the Ministry for Digitalisation (MDIGI) in 2020, the Government of Luxembourg agreed to create a two-layered governance framework for digital government with the purpose of aligning both strategic and technical decisions regarding government priorities and policies for the digital transformation of ministries and administrations:

- The High-Committee for Digital Transformation is the strategic governance instance. It was launched in September 2022 to bring together different ministers and societal actors to discuss about government priorities and actions to advance digital government and economy policies.
- The Inter-Ministerial Committee for Digitalisation was established to co-ordinate ministries in the development and implementation of digital government initiatives. It aims to strengthen the co-ordination and coherence of actions within the government for the implementation of the Electronic Governance Strategy 2021-2025.

Source: OECD (2022[8]), *Digital Government Review of Luxembourg,* https://doi.org/10.1787/b623803d-en

Co-ordination and alignment with relevant budgetary and procurement processes is key for an investment framework that responds to the national political economy and to existing organisational culture, incentives and structures that influence investments' decision making. In the case of Romania, evidence from the fact-finding mission and surveys sheds light on the limited collaborative approach for managing digital investments beyond compliance of existing national regulation and policy frameworks. Decisions taken either at CERB and CTE do not inform any specific budgetary or procurement process and are not linked to any broader policy framework beyond digital government. This includes existing processes in place to manage and co-ordinate EU funds allocated to digital transformation and which are managed by the Ministry of Investments and European Projects (*Ministerul Investițiilor și Proiectelor Europene*, MIEP), for example Romania's Resilience and Recovery Funds (RRF)[6] or Cohesion Policy Funds (CPF); or dedicated funds for research, development, and digitalisation such as EU's Smart Growth, Digitisation and Financial Instruments Programme (*Programul Creștere Inteligentă, Digitalizare și Instrumente Financiare*, POCIDIF)[7]. In the context of the implementation of Romania's RRF, the MCID recently created a dedicated Task Force for the Implementation and Monitoring of Reforms and Investments for Digital Transformation. The Task Force will oversee and manage the implementation of large IT projects under the responsibility of MCID that goes beyond digital government initiatives. In this regard, Romania could explore securing that decisions taken by the existing investment governance mechanisms (CERB and CTE) are binding to funding allocation and financial mechanisms in place, including those stemming out from Romania's membership to the EU. Romania could consider piloting these capacities in the context of EU funds as observed recently in the case of Croatia, leveraging the value proposition mechanism in place (see Box 3.3)

Similarly, co-ordination with the National Agency for Public Procurement (*Agenția Națională pentru Achiziții Publice*, NAPP) seems limited. The ADR has the prerogative to strategically assist public sector institutions when conducting public procurement processes related to digital transformation, however this capacity has not been exerted yet due to the limited human resources at the ADR to address these issues and the limited availability of comprehensive soft instruments such as guidelines and standards to support public

sector institutions when procuring goods and services related to digital technologies (for more details see next section *Execution and Implementation*).

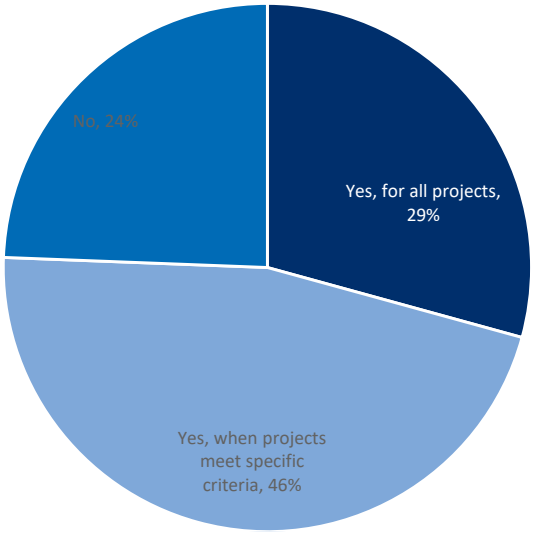
Box 3.3. Informing decision-making on EU investments on digital government in Croatia

In Croatia, the Central State Office for the Development of Digital Society (CSODDS) is the government entity responsible for steering the implementation of the digital government strategy Digital Croatia 2032. As part of the renewed mandate for the CSODDS to effectively exert this mandate, recent developments in the allocation of EU funds for digital transformation have secured that CSODDS's value proposition and approval mechanisms are binding to allocate EU funds within the Institutional Framework 2021-2027. Such a policy lever has the potential to secure that EU funds dedicated to the digital transformation of the public sector are directly informed by the strategic priorities set for digital government in the country. Similarly, there is an expectation in Croatia that the decision-making responsibilities of CSODDS related to investments in digital government can be also applicable to national budget in the near future.

Source: OECD (2023[9]), *Report for improved understanding of the quality of planning and implementation of public ICT/digital projects in Croatia and recommendations for improvement* (unpublished)

Within the OECD approach to digital government investments, value proposition mechanisms (also known as *business cases*) support strategic decision-making by assessing ICT/digital projects and products on their merits as well as promote adherence to national digital government standards and guiding principles (OECD, 2022[10]). As stated in the OECD Recommendation of the Council on Digital Government Strategies, countries are recommended to "develop business cases to sustain the funding and focused implementation of digital technologies projects, by i) articulating the value proposition for all projects above a certain budget threshold to identify expected economic, social and political benefits to justify public investments and to improve project management; ii) involving key stakeholders in the definition of the business case (including owners and users of final services, different levels of governments involved in or affected by the project, and private sector or non-for-profit service providers) to ensure buy in and distribution of realised benefits" (OECD, 2014[6]). As observed across OECD member countries, the adoption and use of value proposition mechanisms differ regarding the existence of such mechanism as well as the definition of thresholds to differentiate between investments (see Figure 3.2).

Figure 3.2. Availability of standardised models/methods to develop business cases



Note: Preliminary results of 41 member and accession countries that completed the survey
Source: OECD Survey on Digital Government 2.0

In Romania, the mechanism in place for value proposition is managed by the ADR through the CTE. Currently, the value proposition mechanism builds on a series of documents that constitute a *dossier* for each ICT/digital projects to be assessed by the CTE prior to budget allocation and contracting procedures. CTE is currently composed by technical experts from the ADR as well as from relevant public sector institutions to assess the pertinence of business cases and their adherence to national and EU priorities for their approval and further implementation. Only projects above the budget threshold of LEI 2M (equivalent to EUR 400K) enter the project approval pipeline. As previously stated, this value proposition mechanism does not inform any decision-making taken by the GSG's CERB. Despite the formal mechanisms in place and high compliance across the public sector, government institutions in Romania seem not to be widely familiarised with the procedure; only 3 out of 16 surveyed institutions declaring knowing its existence[8], in line with the perceptions captured during the fact-finding mission. In this regard, more efforts could be done by ADR to clearly communicate the purposes and added value of this mechanism.

When public sector institutions present their projects to the CTE, the list of forms and information to provide includes:

- Basic details such as project name, relevant dates and project owner.
- Value and breakdown in several funding sources.
- Critical data related to measures taken to assure interoperability, security, non-duplication, and technology neutrality of spending on ICT/digital projects.
- Appendices providing further evidence and details related to the two elements above.

The current mechanism in place in Romania to assess value proposition largely focuses on the technical qualities and merits of ICT/digital projects and do not pay attention to the multi-dimensional benefits such projects can deliver e.g., to achieve NDGS or other policy goals. As such, the existing procedure is a missed opportunity to leverage key information that can empower the ADR to take strategic decisions, influence budget decision-making or have a more granular monitoring of key initiatives from their conception to the realisation of their intended benefits. In this regard, Romania could consider revisiting the value proposition mechanism and its governance within the Romanian public sector to transit from a

technical review to a strategic assessment system. This may include redesigning the proposition procedure, requesting more strategic information to project beneficiaries that includes expected benefits, CAPEX and OPEX indicators, risk assessment, alternative solutions, among others. A similar approach is taken in New Zealand, where the Treasury manages the investment approval process including the business case (see Box 3.4). Romania may consider the work done by the OECD and Australia through the Business Case Playbook to redesign the value proposition mechanism (see Box 3.5).

Box 3.4. Value proposition mechanism in New Zealand

New Zealand's Better Business Cases is a methodology to enable smart investment decisions for public value. It involves the use of a business case to demonstrate that a proposed investment is strategically aligned, represents value for money and is achievable. It aims to allow decision-makers to analyse objectively with consistent information, make smart investment decisions for public value, and reduce the costs and time for developing business cases.

Source: New Zealand Treasury (2022[11]). Better Business Cases™, https://www.treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/better-business-cases-bbc (accessed on 10 August 2023)

Box 3.5. OECD Business Case Playbook

This Playbook is designed to guide countries in defining persuasive business cases to underpin investment decisions in digital transformation and ICT, delineating successful strategies and common challenges. Led by Australia's Digital Transformation Agency as part of the work of the OECD E-Leaders and draws insights from the experiences of member nations like Australia, Canada, Denmark, Estonia, and the United Kingdom. It delves into the essential elements of a business case needed to make a strong case for digital or ICT investments, with each section focusing on a critical aspect of business case formulation, enriched by resourceful links around 10 plays:

1. **Set the foundations:**
   a. Define a dedicated team
   b. Engage key stakeholders and senior officials
   c. Scope the preliminary work
2. **Discover the problem and options**
   a. Understand the problem
   b. Engage stakeholders early and often
   c. Explore options
3. **Test possible alternatives**
   a. Define options
   b. Select preferred solutions
4. **Define the business case**
   a. Draft the business case
   b. Review and refresh

Source: OECD and Digital Transformation Agency (2020[12]), *Business Cases Playbook*, https://www.dta.gov.au/resources/OECD-Business-Case-Playbook (accessed on 10 August 2023)

Given significant resources for government digital transformation come from EU funds, improved co-ordination and streamlining of value proposition processes with the MIEP could be considered by the ADR as well. Currently, the value proposition mechanism managed by the CTE only requests the project code provided by MIEP in case projects were first applied through the national EU funds (SMIS code)[9]. Given the formal requirement to apply to EU funds through MIEP, public sector institutions observe ADR's value proposition mechanism and CTE as increased bureaucracy that brings limited added value for the implementation of this project. Romania could consider exploring the integration of application and value proposition processes, or at least leveraging the application process to EU funds in ways that public sector institutions benefit from strategic advisory prior to funding allocation through MIEP. In practice, this may require adjusting EU funds implementation or regulatory frameworks to incorporate a mandatory validation from CTE to approve digital transformation projects in the public sector, as per observed in other EU countries to structure the implementation of EU investments in digitalisation (see Box 3.3).

Execution and implementation

Strategic planning for ICT/digital projects in the public sector leads to execute financial resources, implement initiatives and, if needed, contracting solutions in the market to complement public sector

institutions' capacities for digital transformation. In the context of a whole-of-government approach to digital government investments, once value proposition of ICT/digital projects has been stated, governments should prioritise and approve initiatives to be implemented.

In Romania, project technical assessment and approval are managed by the CTE. As stated in the previous section, projects financed with EU funds are requested to go through two approval processes (MIEP and ADR). In this regard, ADR's process acts as a technical validation before decisions are taken by MIEP, without having a strategic role in the prioritisation of EU funds for digital government in practice.

Project approval process happens in practice:

- For national funds: before beneficiaries start the public procurement award process, in case of financing projects with a specific component on ICT with a nominal or cumulative value greater than LEI 2M.
- For EU funds: before beneficiaries submit the funding request to the competent authorities, as well as before starting public procurement award process, in the case of funding projects with an ICT component with a nominal or cumulative value greater than LEI 2M.

Criteria for ICT/digital project prioritisation and approval remains unclear for most of interviewed public sector institutions. In fact, according to the ADR and CTE, almost all projects are approved, and the ones that are contested can be reformulated by the responsible authorities prior for the CTE to reconsider them. On the other hand, public sector institutions remain unclear about what are the criteria used to approve/contest initiatives, and Romania could consider further communicating what criteria is used, or to develop collaboratively guiding principles and policy goals to be achieved with the approval process, e.g., contributing to the achievement of the NDGS or other policy frameworks in place. Romania could consider establishing a prioritisation framework built together with relevant authorities such as MIEP, GSG and the recently created Task Force at the MCID, integrating different policy priorities and helping better connect the technical validation with funding approval. Currently the CTE's process request information regarding cybersecurity and interoperability, but further efforts could be devoted to secure human-centric and integrated digital service delivery as seen in countries such as Australia and Ireland (see Box 3.6).

Box 3.6. Prioritisation frameworks for digital government investments in Australia and Ireland

Australia

The ICT Investment Approval Process (IIAP), part of the Digital and ICT Investments Oversight Framework , is used by the Digital Transformation project to validate all digital projects over AUD$ 30 million (app. €20 million). The IIAP aims to assist beneficiaries in the public sector in developing comprehensive business cases and secure the effective implementation of digital and ICT-enabled proposals, linking the value proposition with the project approval.

Ireland

The Office of the Government Chief Information Officer (CIO) at the Department for Public Expenditure and Reform, established a blind peer review process to approve ICT/digital projects . It brings together national government experts on digital government and define a procedure in which they provide technical and business assessment to validate the value proposition and enter the project into the approval pipeline.

Source: Digital Transformation Agency (2022[13]), *Digital and ICT Investment Oversight Framework*, https://www.dta.gov.au/help-and-advice/digital-and-ict-investments/digital-and-ict-investment-oversight-framework (accessed on 10 August 2023) and Department of Public Expenditure and Reform (2022[14]), *Connecting Government 2030: A digital and ICT strategy for Ireland's Public Service*, https://www.gov.ie/en/publication/136b9-connecting-government-2030-a-digital-and-ict-strategy-for-irelands-pu (accessed on 10 August 2023)

Furthermore, the information gathered by the CTE and ADR is not managed in ways that delivers strategic information for decision-making and monitoring of digital government investments in the short, medium, or long term. Collected forms and applications submitted for the CTE and ADR to approve or contest projects is not strategically leveraged in the public sector, and do not serve for any further whole-of-government analysis regarding national and institutional priorities, possible synergies or government trends related to the investments on digital government. The limited capacity to strategically use this information promotes further lack of integration and co-ordination of projects, limiting collaboration between agencies for the implementation of ICT/digital projects. Similarly, the limited knowledge and use of this value proposition and project approval mechanism by public sector institutions in Romania (only 2 out of 16 public sector institutions declared going through the project approval process) implies that a significant fraction of investments may be creating shadow IT costs, duplicated efforts or large dependency on legacy systems that further deepen the e-government mindset and practice in Romania.

Looking ahead, Romania could consider integrating existing value proposition, project approval and prioritisation under an ICT project portfolio approach as most advanced OECD member countries have been developing for several years for a more strategic management of digital government investments. The purpose of an ICT portfolio approach is to collect, manage and produce strategic information that feeds government decision making on digital transformation policies. While several steps are related to the application and funding of initiatives, an ICT portfolio approach supports the production of information for monitoring and eventually assessing investments. Currently, the ADR and CERB have no information in practice to exert the mandate of co-ordination, alignment and collaboration when implementing digital government investments.

Any action by the ADR and GSG towards the consolidation of an investment framework for government digital transformation would require the close involvement of the Ministry of Finance (*Ministerul Finanțelor*, MF) and the MIEP given the implications with national and EU funds, as well as that the existing regulatory frameworks and policy instruments in place partially address some of these challenges, e.g., collecting,

managing and producing information to monitor the implementation of investments in the context of EU regulation and compliance to standards.

The experience of OECD member countries can inspire Romania to find innovative and effective ways to consolidate existing fragmented policy levers into a single and streamlined process, aligned with EU funding requirements and standards. For instance, Denmark has developed their ICT portfolio management system that has become the neural point for decision making on digital government investments. A similar approach has been taken by Lithuania and the Ministry of Economy and Innovation to improve the coherence on government spending and to empower the leading digital government authority to exert its co-ordination mandate beyond technical validation and approval of ICT/digital initiatives (see Box 3.7).

Box 3.7. ICT portfolio management in Denmark

The Agency for Digitalisation develops and maintains the cross-governmental ICT project model and the ICT System Portfolio model. The project model contributes to a streamlined and homogenous planning, management, and implementation of ICT projects across government bodies while the system portfolio model supports a responsible and secure management of government ICT initiatives. By supporting governmental institutions through advice and assistance in standardised procedures, these models allow line ministries and agencies to take informed decision when developing digital solutions and secure alignment with strategic goals. These models aim at strengthening governmental ICT projects' planning, management, and implementation, promoting national standards alignment while decentralising decision-making.

Source: Agency for Digitalisation (2022[15]). *The ICT Project Model and the ICT System Portfolio Model,* https://en.digst.dk/digital-governance/government-ict-portfolio-management/the-ict-project-model-and-the-ict-system-portfolio-model/ (accessed on 10 August 2023)

Finally, investments decisions can materialise into in-house development or outsourcing to the private sector. In Romania, outsourced ICT/digital goods or services are framed under the existing public procurement policy and regulation[10], which transposes the EU regulation on this matter. Public procurement policy is under the responsibility of the National Agency for Public Procurement (*Agenția Națională pentru Achiziții Publice*, NAPP). Evidence from the interviews and survey indicates that collaboration between the NAPP and ADR occurs only in the context of the mandate to the ADR to support digitalisation of specific public policy areas, including public procurement. As a result, the ADR is fully responsible to provide on demand services and assistance to NAPP for the management of the national e-procurement system. Regarding issues on public procurement of digital transformation in government, currently there are no specific or dedicated initiatives, support, guidance or instruments that equip public sector institutions to procure ICT/digital goods and services in the country. This poses significant challenges to public sector institutions in a context in which most digital transformation efforts have to be outsourced given the limited financial and organisational incentives to attract, retain and promote professional digital talent and skills in the Romanian public sector (see next section).

When looking at the specific practices of Romanian public sector institutions to contract ICT/digital goods and services, most surveyed institutions declared preferring open public tenders, framework agreements and direct purchasing (see Table 3.1). In contrast, procurement mechanisms that promote a more collaborative and co-creation environment for digital transformation, such as public-private partnerships (PPPs), challenge-based or innovation partnerships almost not considered as possible alternatives. Interviews shed light on the reasons: previous cases of corruption in public procurement have created a risk-averse culture in public procurement for which both NAPP and contracting authorities prefer to adhere to regular practices rather than exploring options included in the national regulation.

Table 3.1. Limited innovative procurement practice in digital government in Romania

Frequency	Framework agreements (enabling repeated purchasing under predefined conditions)	Open public tenders (including tenders with negotiation)	Direct purchases (e.g. single source purchasing)	Purchases below thresholds of formal tender procedures	Public-private partnerships (project-financed schemes)	Challenge-based and/or prize-based procurements	Innovative public procurement
Always	13%	44%	0%	0%	0%	0%	0%
Often	25%	38%	13%	13%	0%	0%	0%
Sometimes	25%	13%	44%	19%	19%	6%	6%
Rarely	6%	6%	38%	38%	13%	6%	0%
Never	31%	0%	6%	31%	69%	88%	94%

Note: Results from 16 participant institutions at the central level
Source: OECD Survey on Digital Government in Romania (2022)

Romania's public procurement law comprises a wide range of mechanisms and instruments that can support more agile and iterative developments beyond regular tendering processes or framework agreements - including dynamic purchasing systems, innovation partnerships, competitive dialogues and tendering for a solution project (OECD, 2015[16]). However, and as evidenced during the fact-finding mission, public sector authorities in Romania do not have the awareness, knowledge, and capacities for adopting more innovative ICT procurement mechanisms. Both the ADR and the National Agency for Public Procurement could play an important role in disseminating the benefits of these mechanisms given the existing lack of capacities in the public sector to conduct coherent and comprehensive ICT/digital project implementation from the formulation phase through procurement, monitoring, and assessment.

To fulfil ADR's mission to support public sector institutions in their digital transformation journeys, Romania could consider establishing dedicated instruments to assist the procurement of ICT/digital goods and services drawing upon the existing regulatory framework for public procurement. Currently, NAPP has issued guidance on green criteria for procuring computers and laptops[11], contract management[12] and demo requests in the implementation of IT systems[13]. However, these do not constitute a comprehensive set of supporting instruments for public sector institutions to address ICT procurement.

Possible ways forward include developing dedicated guidelines for ICT procurement and commissioning in which public sector institutions can get inspired to test new mechanisms as well as can promote visibility and awareness about the added value such means could bring for the implementation of their digital transformation initiatives. Countries across the OECD are adopting dedicated practices and frameworks for procuring digital technologies in the public sector (see Table 3.2). Practices from OECD member countries can serve as inspiration for action-oriented measures that can contribute in this direction (see Box 3.8, Box 3.9 and Box 3.10). ADR could become a strategic partner for public sector institutions to address some of the challenges of public procurement, complementing their existing technical remit with more strategic and policy-oriented support. This would require strengthened co-ordination and collaboration with NAPP to better exploit the possibilities that the transposition of EU regulation can offer.

Table 3.2. Use of standardised policy levers at the central/federal government level

	Business cases	ICT procurement	ICT project management
Belgium	□	■	■
Canada	■	■	■

Chile	■	■	□
Colombia	□	■	■
Czech Republic	■	■	□
Denmark	■	■	■
Estonia	■	□	□
Finland	□	□	□
France	■	■	■
Germany	□	■	■
Greece	□	□	■
Iceland	□	□	■
Ireland	□	■	■
Israel	■	■	■
Italy	□	■	□
Japan	■	■	■
Korea	■	■	■
Latvia	□	□	□
Lithuania	□	■	□
Luxembourg	■	□	■
Netherlands	□	■	■
New Zealand	■	■	■
Norway	■	■	■
Portugal	■	■	■
Slovenia	■	■	■
Spain	■	■	■
Sweden	■	■	□
United Kingdom	■	■	■
OECD Total			
Yes ■	17	22	20
No □	11	6	8

Note: Data are not available for Australia, Hungary, Mexico, Poland, the Slovak Republic, Switzerland, Türkiye and the United States.
Source: OECD (2020[17]), "Digital Government Index: 2019 results", https://doi.org/10.1787/4de9f5bb-en.

Box 3.8. Digital marketplace in the United Kingdom

In 2014, Government Digital Service (GDS) launched the Digital Marketplace as an online service to facilitate the government's ability to find and procure technology for the public sector. The Digital Marketplace aimed to be a more straightforward, faster and cost-effective method for the government to buy technology, redefining the government's relationship with technology providers. In this line, it helped the UK government support market engagement and a multidisciplinary approach at the pre-procurement stage.

Source: Government Digital Service (n.d.[18]), *Digital Marketplace,* https://www.digitalmarketplace.service.gov.uk/ (accessed on 10 August 2023)

Box 3.9. Centralised procurement of digital technologies

Acknowledging the advantages of centralising ICT procurement, many OECD nations have established dedicated ICT Central Purchasing Bodies (CPBs). For example, in 2017, Germany set up the Central Office for IT Procurement within the Federal Procurement Office of the Federal Ministry of the Interior. This establishment serves as the primary hub for federal-level ICT procurement. In its early stages, its role was primarily advisory, assisting users throughout the procurement cycle, from the initial need identification to contract management for the entire duration of contracts. However, since its inception, it has transitioned to also managing tenders on behalf of the contracting bodies.

Similarly, Ireland adopted centralised ICT procurement to align with its Public Service ICT Strategy. This initiative is led by the Office of Government Procurement, Ireland's designated CPB. The Irish model prioritises government-wide IT applications used across multiple departments. This central approach is especially effective for streamlining universally used applications like payroll or messaging. However, when it comes to technology specific to a particular agency, decision-making authority remains decentralised, residing with the respective agency.

Source: OECD (2022[10]), Digital Transformation Projects in Greece's Public Sector: Governance, Procurement and Implementation, https://doi.org/10.1787/33792fae-en.

Box 3.10. ICT procurement guidelines in Australia

In Australia, the Digital Transformation Agency (DTA) is responsible for public procurement of ICT/digital goods and services. As part of the BuyICT marketplace, the DTA offers comprehensive support to public sector institutions to guide them when sourcing digital technologies. This includes tools for planning sourcing, contract templates, pre-approved clauses to include in contracts, and support for early market research, among others.

Source: Digital Transformation Agency (n.d.[19]), *BuyICT*, https://www.buyict.gov.au/sp?id=sourcingguidance (accessed on 10 August 2023)

Within the public procurement policy area, Romania faces structural challenges to attract and promote digital talent and skills, while the IT industry benefits from a series of financial incentives that makes the public sector not capable to compete with the private sector to hire professional digital skills[14]. While this poses serious constraints for developing a competent digital workforce (see next section), it may create opportunities for Romania to explore the possibility to expand the pool of suppliers by better engaging with SMEs, entrepreneurs, start-ups and innovators to co-develop digital government solutions. Govtech policies, labs and exercises are gaining momentum within NDGS. Leveraging existing innovative procurement mechanisms, Romania and the ADR could consider developing a dedicated govtech initiative that connects the supply and demand side to experiment with emerging technologies, promote a culture of collaboration and innovation within the public sector, and increase the cost-effectiveness of solutions by testing, experimenting and scaling up digital transformation initiatives. OECD member and partner countries in Europe and Latin America are strategising with govtech to better deliver their NDGS, creating dedicated innovation funds, enforcing the implementation of govtech initiatives through national legislation, creating dedicated govtech labs and implementing innovation partnerships and design contests.

Box 3.11. Govtech initiatives in Scotland and Luxembourg

Scotland

CivTech is a Scottish Government programme that brings people from the public, private and third sectors together to address public challenges. The open challenge provides technical and financial support to build a Minimum Viable Product (MVP) in close collaboration with the beneficiary. The incremental and iterative approach offers an opportunity for innovators to collaborate between themselves and with public sector institutions to solve specific problems shared among different organisations. The programme has run several rounds, including a tailored sprint challenge, providing the public sector with proven solutions.

Luxembourg

The GovTech Lab was launched in 2021. Overseen by the MDIGI and CTIE, the GovTech Lab promotes a dynamic and flexible culture within ministries and administrative bodies, encouraging the creation of novel digital public service solutions. The Lab adopts an open innovation strategy, facilitating collaboration between internal governmental bodies and external participants via challenges defined based on the needs of the public sector.

At present, the Lab is leveraging innovation partnerships. These offer a platform for startups and entrepreneurs to showcase solutions that can scale up from a proof of concept to a fully realised solution procured and rolled out by the CTIE.

Source: Scottish Government (2022[20]), *CivTech,* https://www.civtech.scot/ (accessed on 10 August 2023) and OECD (2022[8]), *Digital Government Review of Luxembourg,* https://doi.org/10.1787/b623803d-en

Monitoring and evaluation

Increased budget and funding available for digital government also builds the case for public sectors to be more effective in monitoring progress and assessing final results and outcomes. Monitoring uses systematic collection of data on specified indicators to provide the management and the main stakeholders of an on-going intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. The OECD Recommendation on Digital Government Strategies advises adherent countries to "reinforce institutional capacities to manage and monitor projects' implementation, by:

- adopting structured approaches systematically, also for the management of risks, that include increase in the amount of evidence and data captured in the course of project implementation and provision of incentives to augment data use to monitor projects performance;
- ensuring the availability at any time of a comprehensive picture of on-going digital initiatives to avoid duplication of systems and datasets;
- establishing evaluation and measurement frameworks for projects' performance at all levels of government, and adopting and uniformly applying standards, guidelines, codes for procurement and compliance with interoperability frameworks, for regular reporting and conditional release of funding." (OECD, 2014[6])

In Romania, evidence indicates that the public sector does not have a dedicated monitoring framework or system to track progress of the implementation of the NDGS or key initiatives under the remit or advisory support of the ADR. This contrasts with the existing legal mandate of the ADR as entity responsible for

monitoring and evaluating digital government policies as indicated in the Law that regulates its organisational structure and competencies[15]. Despite the existence of the CTE and the project approval mechanism in place, the wealth of information collected by the ADR for this purpose is not managed in a way that can equip them with strategic information for monitoring of the strategy and related initiatives. The limited availability and use of strategic information from digital government investments hampers the capacity of the ADR to oversee projects from conception to delivery and maintenance. The absence of such an approach represents a missed opportunity for having a more transparent and accountable operation and monitoring of digital projects and funds to strategically empower ADR.

In the area of reporting and monitoring, the ADR publishes information online through its website about key projects completed and under development, as well as their milestones, involved entities including project beneficiaries and funding sources[16]. Similarly, ADR publishes every quarter regular digitalisation report to share key activities and news within its mandate[17] - of which the last version dates from June 2022. While these actions are positive and contribute to the transparency and openness of ADR's work, they do not constitute a comprehensive approach to monitor actions that help ADR, GSG and the broader public sector to track progress of investments on digital government. One of the reasons why such a framework is not in place may be explained by the technical mandate and nature of ADR's activities.

Ongoing actions occur in the context of monitoring EU funds, under the responsibility of the MIEP. Since the reporting occurs between funding sources and beneficiary institutions, ADR is only involved in projects and resources under its immediate remit and not related initiatives implemented by other public sector institutions. This includes the platforms MySMIS[18] and Fonduri-EU.RO[19] which comprises monitoring and evaluation of EU programmes. Building on these existing platforms, Romania could consider developing a dedicated monitoring framework that, integrating with existing platforms and systems for EU funds, provides a detailed picture of ongoing projects and initiatives, helping achieve ADR's responsibility for monitoring digital transformation initiatives in the public sector.

Such a comprehensive approach would require to collectively define key performance indicators (KPIs) as well as other relevant information that will serve to monitor digital investments. Alternatively, Romania could consider short-term actions, focusing monitoring activities on selected cross-organisational projects that involves significant resources, co-ordination and ownership between several public sector institutions. Efforts observed in France could serve as inspiration to advance with tangible actions in this field (see Box 3.12). In the medium- or long-term, Romania could consider expanding monitoring actions to all public sector institutions, including developing dedicated digital maturity indicators that goes beyond specific activities or project in order to inform priorities and actions in future digital government strategies (see Box 3.13).

Box 3.12. Project oversight in France

In France, the Digital Interministerial Directorate (DINUM) has set up a consistent mechanism to track strategic ICT/digital initiatives within the French government. The "Overview of the State's Major Digital Initiatives" supervises digital transition efforts that either have a budget exceeding 9M euros or hold considerable strategic relevance for the public sector, considering factors like impact on various users, associated risks, and more.

This overview gathers periodic updates regarding the ongoing status, advancements, projected expenses, and timelines of these projects. Based on this data, DINUM recommends adjustments to public entities and aids in ensuring the anticipated benefits are achieved.

Moreover, DINUM releases key performance metrics in accessible and visual means about progress of implementation, promoting greater responsibility and public scrutiny over government digital spending.

Source: Direction interministérielle du numérique (n.d.[21]), *Panorama des grands projets numériques de l'État*, https://www.numerique.gouv.fr/publications/panorama-grands-projets-si/, (accessed on 10 August 2023)

Box 3.13. Digital government indicators in Colombia

Ministry of Information Technologies and Communications (MINTIC) developed a Digital Government Index as a measurement tool to support the implementation of the digital government strategy. The measurement provides disaggregated data on the performance of national and territorial entities regarding digital government policy. MINTIC publishes the index results at a disaggregated level using an interactive platform, and the data is available on the open data platform of the Government of Colombia.

Source: MINTIC (2022[22]), *Índice de Gobierno Digital*, https://colombiatic.mintic.gov.co/679/w3-propertyvalue-36675.html (accessed on 10 August 2023)

Finally, ICT/digital projects are implemented to transform the experience of users in ways that public value can be delivered, to meet their needs and to increase their satisfaction with government digital services and processes. Users may include citizens, businesses, and civil servants if intended investments transform government processes. Romania does not have a consolidated, single satisfaction measurement methodology to assess the experience of users with digital government processes and services. OECD work also demonstrate the intrinsic relationship between user satisfaction with digital public processes and services with public trust in democracy and public sector institutions (OECD, 2022[23]).

There are ongoing practices in the Romanian administration to measure user satisfaction. For example, the National Agency for Fiscal Administration (*Agenţiei Naţionale de Administrare Fiscală*, NAFA). NAFA implements an annual satisfaction mechanism to adapt to new trends and requirements in the economic environment. In 2021, opinion polls were conducted to provide NAFA senior management with sensitive information regarding tax administration as well as the perception of the Agency (both its employees and users). The National Trade Registry Office(*Oficiul National al Regsitrului Comertului*, NTRO) adheres to change management practices according to ISO 9001 Quality Management System, including surveys

and questions to capture relevant information from users. The Ministry of Internal Affairs (*Ministerul Afacerilor Interne*, MIA) includes user satisfaction tools in all services offered through https://hub.mai.gov.ro, where users are asked to give an overall rating to the service, specify whether the information provided is clear or not, and to make suggestions for improvement.

Looking ahead, Romania and the ADR could consider advancing towards frameworks that meaningfully capture the experience of users with digital public processes and services, building on the experience of OECD countries and the progress done by Romanian public sector institutions with more digital maturity (see Box 3.14). This would be particularly relevant in the context of implementing EU RRF, as most of the resources are devoted to digitalising government services; as well as existing core digital public infrastructure being developed by ADR such as digital identity. Securing a user-driven approach in government services and digital infrastructure is critical for an inclusive and responsive digital transformation agenda in the country.

Box 3.14. User satisfaction measurement in Australia and Ireland

Australia

The Australian Government measures user satisfaction through the Trust in Public Services Report. Since its creation in March 2019, the survey has included over 43,000 responses, primarily focusing on feedback concerning Australian public services. These services are also commonly referred to as Federal, National, or Commonwealth services. The feedback extends to all public services utilised within the past year. The results obtained are validated by the Australian Bureau of Statistics. Furthermore, the methodology underwent an independent review by the ANU Centre for Social Research in 2019 and was put to the test through two pilot studies. The survey adopts a people-centric perspective, inquiring about life events and the support offered by these services.

Ireland

Since 1997, the Irish government has conducted a survey to assess the satisfaction levels with services received from civil service departments and offices. The measurement also captures general perceptions of, and attitudes to, the civil service. The survey was undertaken by a private provider on behalf of the Public Service Transformation Delivery Unit in the Department of Public Expenditure and Reform, following an open tendering process.

Source: Department of the Prime Minister and Cabinet (2022[24]), *Trust in Australian public services: 2022 Annual Report,* https://www.pmc.gov.au/publications/trust-australian-public-services-2022-annual-report (accessed on 10 August 2023) and Department of Public Expenditure and Reform (2022[25]). *Minister McGrath welcomed the Results of the 2022 Civil Service Business Customer Survey*. https://www.gov.ie/en/press-release/6f52d-minister-mcgrath-welcomed-the-results-of-the-2022-civil-service-business-customer-survey (accessed on 10 August 2023)

Digital talent and skills in the public sector

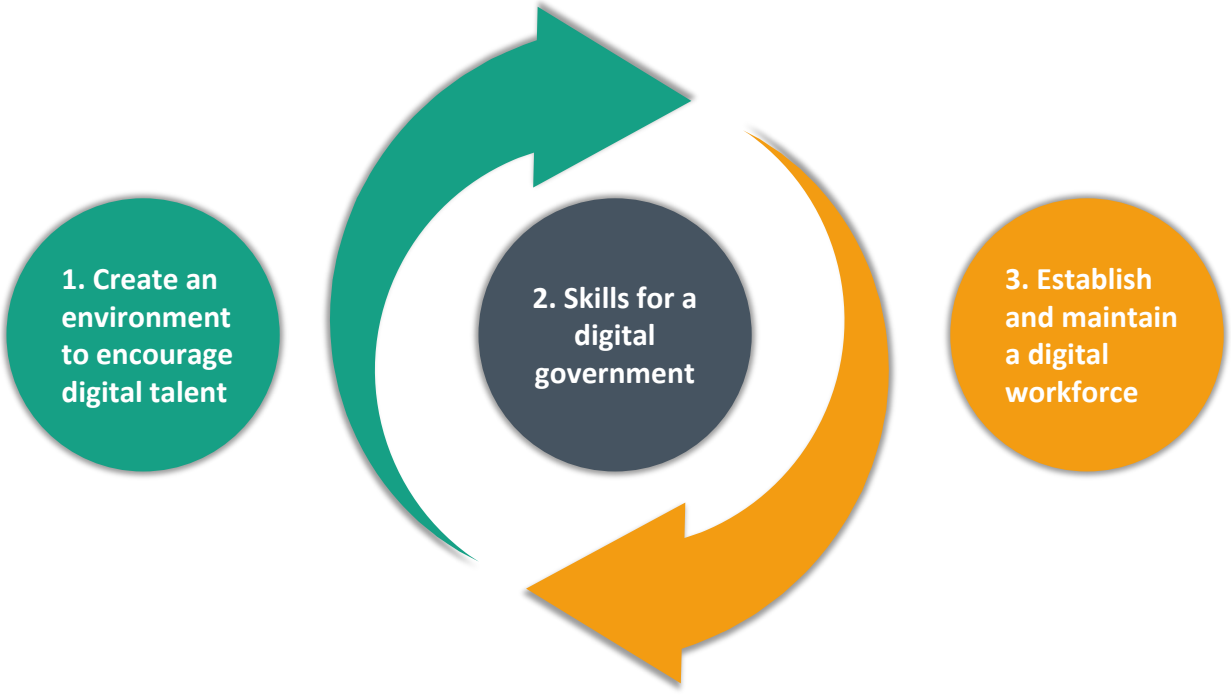
Introduction

Digital transformation, including digital government, happens in the context of people, their capacities, and the organisational context for them to experience the digital age. Securing a competent and digital savvy workforce in the public sector is a fundamental pillar for governments that aim to transform public processes and services in meaningful ways beyond replicating analogue processes into digital means.

The OECD works with member and partner countries to build digital government competency and capacity to develop digital talent and skills in the public sector. This requires looking not only at the skills needed to support government digital transformation, but also at the organisational enabling conditions for a digital workforce in the public sector as well as actions towards attracting, promoting, and retaining the right digital talent and skills to support digitalisation efforts and the implementation of NDGS. The OECD Framework for Digital Talent and Skills in the Public Sector informs the analysis and recommendations to strengthen digital workforce policies in the Romanian public sector (OECD, 2021[26]). The framework is constituted by three pillars (see Figure 3.3):

- Pillar 1 covers the importance of the context for those working on digital government and discusses the environment required to encourage digital transformation.
- Pillar 2 addresses the skills to support digital government maturity, covering all public servants, particular professionals, and those in leadership roles.
- Pillar 3 considers the practical steps and enabling activities required to establish and maintain a workforce that encompasses the skills to support digital government maturity.

Figure 3.3. The OECD Framework for Digital Talent and Skills in the Public Sector



Source: OECD (2021[26]), *Framework for Digital Talent and Skills in the Public Sector,* https://doi.org/10.1787/4e7c3f58-en.

The overview of digital talent and skills with be structured and focused on the organisational conditions for digital talent and skills in Romania (pillar 3), as well as specific activities and initiatives supporting the development of specific skills to support the digital transformation of the country (pillar 2).

Organisational conditions for digital talent and skills in the public sector

In Romania, the ADR has the legal prerogative to look after the development of digital talent and skills in the public sector. As stipulated in the overarching Law that structures ADR's mandate and responsibilities, the institution should "elaborate the national plan for the development of digital skills within the public administration and ensure its implementation, in collaboration with other competent authorities, in

accordance with the law"[20]. ADR's responsibility to develop digital talent and skills in the Romanian public sector is encompassed by the legal role of the National Agency for Civil Servants (*Agenţia Naţională a Funcţionarilor Publici*, NACS)[21] as overarching institution in charge of national civil service policy, recruitment, and talent development in the Romanian government. However, evidence from the fact-finding mission indicates that there is limited co-ordination between these two entities to adopt a comprehensive framework for digital talent and skills. The limited co-ordination observed to develop the national policy on digital talent and skills in the Romanian public sector brings unclarity regarding who is the authoritative institution to reach out to by public sector institutions in this field.

In this context, the peer review process identified that aspects related to attracting, promoting and retaining digital talent in the public sector are not clearly addressed, including an unclear active responsibility and mandate to foster digital talent and skills in the public sector. Observations from this evidence include the fact that there is not a clearly identified authoritative place where profiles and skills are defined and communicated to enable all to meet certain expected levels and standards on digital skills (e.g., IT director and management skills, agile approaches, user driven, data standards, roadmap building). In this regard, Romania does not have a clear strategic approach to address digital talent and skills in the public sector that articulates public sector institutions to equally develop digital skills across the Romanian government.

The absence of a clear strategic path for digital talent and skills becomes particularly critical to address considering how relevant this topic is for surveyed institutions in this review; 10 out of participant institutions indicated that digital talent and skills is considered a *high* or *very high* priority for their institutional digital transformation paths. Looking ahead, Romania could consider developing a dedicated digital skills framework for the public sector. This involves articulating efforts across the public sector, leveraging the mandate of the ADR with the overarching policy role of the NACS on civil service issues to jointly define a roadmap for the digital skills needed in the Romanian workforce as well as the upskilling and promoting actions needed in the medium and long term. OECD countries can serve as a source of inspiration for Romania to identify possible avenues for strengthening digital talent and skills in the public sector, in particular regarding the role of leading digital government units/agencies in setting up goals, actions and co-ordination across the public sector (Box 3.15 and Box 3.16). Efforts across OECD countries includes defining frameworks that structure the particular settings for a digital talent and skills approach in the public sector.

Box 3.15. Digital talent and skills in the public sector in Italy

The Digital Skills and Knowledge for Public Administration project (DSKPA) was designed to develop digital proficiency and literacy within the Italian public sector. Demonstrating its dedication to digital evolution, the Italian government incorporated the DSKPA project into its recently approved National Strategy Plan for Digitisation, endorsed by the Ministry for Technological Innovation and Digital Transition.

DSKPA's mission is twofold: to promote digital transformation initiatives and to improve the standard of public services. It offers public servants the opportunity to develop their digital expertise through tailored training programmes, which are set after a uniform assessment of training needs. Additionally, it endorses self-evaluation and skill identification within administrations.

For its implementation, DSKPA comprises three activities. First, it developed a shared and common ground of knowledge and skills within the public sector administrations, covering technological innovation and digitisation issues. Second, the project arranged a digital platform designed for any public administration to assess public servants' gaps in digital competences. Third, the programme incentivised the reduction in these gaps by supporting the definition and implementation of ad hoc training paths.

Source: EIPA (n.d.[27]), *Digital Skills and Knowledge for Public Administration in Italy*, https://www.eipa.eu/epsa/digital-skills-and-knowledge-for-public-administration/ (accessed 10 August 2023)

Box 3.16. Digital talent and skills in the public sector in Australia

The Digital Transformation Agency (DTA) supports public sector institutions to develop digital talent and skills. For this purpose, the DTA is implementing a dedicated strategy that comprises a series of actions to attract, keep, and develop staff with specific skills; improve the digital literacy of senior leaders; and make sure existing staff have access to the tools and resources they need to deliver better digital services. Various initiatives have been implemented to meet these needs:

- Online Help: Guides and tools are provided to help teams establish and manage digital services.
- Digital Service Standard Training: Free training is provided to ensure teams comprehend and adhere to the Digital Service Standard.
- Entry-level Programs: For individuals commencing their digital or technical careers in the APS, entry-level programs offer roles like apprenticeships, cadetships, and graduate positions.
- Support for Women: Special coaching and mentoring programs, "Women in IT", aim to bolster women's leadership skills and representation in digital governmental roles.
- Capability Building: Measures include the Capability Accelerator Program, Digital Marketplace, and other tailored programs to identify skill gaps and provide training.
- Agency Partnerships: Collaborations with other agencies to enhance digital services are established, offering mentoring, coaching, and expertise in various areas.
- Events and Workshops: Regular events at Canberra and Sydney offices aim to bolster in-house skills, with guest speakers and events focusing on specific areas.
- Digital Communities of Practice: These communities connect government workers to discuss ideas, showcase work, and explore best practices in areas like service design and content design.

Source: Digital Transformation Agency (n.d.[28]), *Building digital skills across government,* https://www.dta.gov.au/our-projects/building-digital-skills-across-government (accessed on 10 August 2023)

OECD countries advancing the development of digital talent and skills in the public sector are also guiding policy decision making by assessing digital skills need across the public sector. Establishing the short-, medium-, and long-term digital skills needs is fundamental to effectively deploy national digital government priorities. National surveys and other similar methods can help define a baseline upon which to measure digital talent and skills progress and target specific actions in a context of limited organisational and financial resources to deploy a more comprehensive strategy (Box 3.18).

Romania is progressing towards assessing the digital skills needed in the public sector as part of the implementation of EU Recovery and Resilience Funds (RRF). Under the lead of the NACS, the study looks at assessing specific digital skills in the country in order to define training programmes for the Romanian public sector (ANFP, 2022[29]). The study assesses the level of digital professional skills in a number of topics including databases, web development, project management tools, and digital tools for teleworking. However, the set of skills assessed and the respective training programmes to be implemented look only at a fraction of the skills needed to support digital government maturity (see Box 3.17). Other skills within the same group that are critical for the implementation for a human-centric government digital transformation such as service design and user research, as well as other core skills on leadership, socio-emotional and user skills are not included in the study and as a result will not be included in training activities led by NACS as part of EU RRF investment.

In this regard, Romania could consider developing a government-wide measurement instrument to assess digital talent and skills needs in the public sector that complements ongoing efforts conducted by NACS by included other core skills group to enable the digital transformation of the Romanian public sector, including leadership, user and socio-emotional skills. This would be particularly relevant considering the expected transformation across different levels and sectors that goes beyond technical implementation of ICT/digital projects (see Box 3.17). The role of ADR and NACS can be relevant to articulate a measurement instrument that informs both digital government and civil service priorities and goals.

Box 3.17. Different skills needed to support digital government maturity

The OECD Framework for Digital Talent and Skills establishes four types of skills needed for governments to advance their digital maturity:

- *Digital government user skills:* 5 areas of core skill needed for all public servants to support digital government maturity, including recognising the potential of digital for transformation, understanding users and their needs, collaborating openly for iterative delivery, trustworthy use of data and technology, and data-driven government.
- *Digital government socio-emotional skills:* achieving digital government maturity involves championing and ensuring a blend of domain specific socio-emotional skills and their associated behaviours. Striking a balance between vision, analysis, diplomacy, agility and protection is essential to the design and delivery of trustworthy and proactive services that put users at their heart.
- *Digital government professional skills:* The digital transformation has disrupted existing professions and created new ones. Digital government maturity is supported by building multi-disciplinary teams that draw from, invest in and acknowledge both digital and non-digital professions.
- *Digital government leadership skills:* The leadership to establish a digitally enabled state draws on wider investment in the general quality of leadership. However, achieving digital government maturity requires leaders to visibly model digital government user skills and actively shape an environment that encourages digital transformation.

Source: OECD (2021[26]), *Framework for Digital Talent and Skills in the Public Sector*, https://doi.org/10.1787/4e7c3f58-en.

Box 3.18. Assessing digital skills needs in the United Kingdom

The Central Digital Data and Data Office (CDDO) envisions a digitally transformed UK government by 2025, as stated in their "Transforming for a Digital Future Strategy". The core strategy involves providing the necessary training and tools for all civil servants, not just those in digital, data, and technology (DDaT) roles.

CDDO implemented a survey in 2022 to better comprehend the digital skills within the civil service. The findings confirmed the belief among civil servants that digital skills and technology are vital for a modern government. The survey revealed that over 75% of civil servants desire more digital skills training. To address this, the government plans to upskill 90% of senior civil servants, deepen the skills of DDaT professionals, and enhance recruitment standards to align with the DDaT Capability Framework by 2025.

Various initiatives have been rolled out in response to the results of the survey, such as launching core capabilities, hosting digital learning events, partnering with recruitment services, and adjusting the pay framework for competitive salaries.

Source: Central Digital and Data Office (2022[30]), *The Civil Service's digital skills imperative*, https://cddo.blog.gov.uk/2022/11/29/the-civil-services-digital-skills-imperative/ (accessed on 10 August 2023)

With the acceleration of the digital transformation across public sector institutions, the Romanian government faces other structural challenges to attract, skill and retain digital talent. Existing remuneration schemes for civil servants provide lower salaries compared to other governments in the EU as well as to the IT industry in the country. While this is a spread issue across OECD member and partner countries, Romania observes specific negative incentives that further constrain public sector capacity to attract professional digital talent and skills. Existing tax systems for the IT sector includes income tax exemption for IT employees from private sector companies[22]. As a result, most of the digital talent is rapidly absorbed by IT companies, and often recruitment processes for civil servants on digital/IT roles do not receive applicants, creating a serious constraint for the capacity of public sector institutions to implement IT/digital projects. Some of these barriers are overcome by the Civil Service Law[23], which allows to provide economic incentives to civil servants working on EU-funded projects including ICT/digital projects.

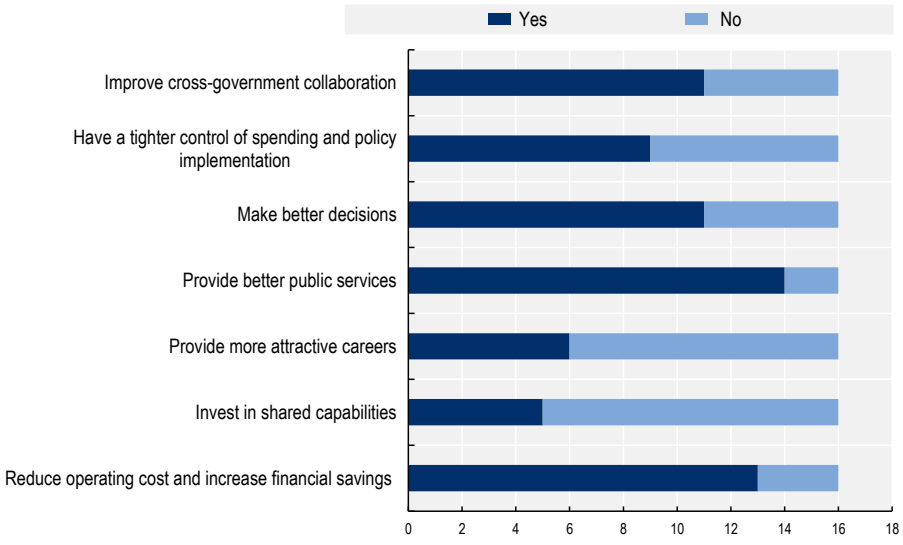
In the context of a very restrictive organisational environment to attract, retain and promote digital talent from a pecuniary perspective, OECD countries are looking at complementary measures to experiment and overcome some structural challenges that impede developing a digital public workforce. Teleworking arrangements, flexible working hours, promotion schemes or microlearning are actions adopted by some OECD countries to advance their capacity to develop a digitally skilled public workforce which could be jointly explored and piloted by the ADR and NACS to create better conditions for digital talent in the Romanian public sector. Evidence from the fact-finding mission indicates a generalised hesitance to think out of the box and experiment alternative and innovative approaches to improve working conditions for digital professionals that, along with the e-government culture embedded into the Romanian public sector (see next section), do not favour positive talent acquisition and development given the pressing digital government skills needs observed in the country.

In any case, best practices across OECD countries indicates that advancing towards the next generation of digital professionals in the public sector requires clear strategic thinking about the future of the public workforce in the next 5 to 10 years, and building new arrangements in collaborative ways with civil servants to explore jointly needs and possible solutions, as well as piloting, testing, learning and adjusting policies to make sure they remain fit for purpose and are implemented in a feasible context (OECD, 2021[31]).

Development of digital talent and skills to support government digital transformation

Among 16 surveyed institutions for this study, 50% declared having at least one activity to support the development of digital talent and skills in the public sector. Similarly, institutions that participated in the survey identified that digital talent and competencies are largely focused to support improvement of government services and reducing operational costs, and to a lesser extent to promote shared capabilities, cross-organisational shared capabilities and collaboration (see Figure 3.4).

Figure 3.4. Goals to achieve with digital talent and skills in the public sector



Note: Graph based on the answer of 16 Romanian public sector institutions to the survey.
Source: OECD Survey of Digital Government in Romania 2022

Within the limited conditions upon which digital talent can be adequately managed in the Romanian government, interviews during the fact-finding mission revealed the need to urgently transform the way civil servants think of digital government and transformation processes in the country. The dominant legalistic culture in the Romanian government system is also reinforced by a technology-led approach when addressing ICT/digital transformation projects. As a consequence, there are cultural challenges in Romania to break down organisational siloes and promote further trust and collaboration across public sector institutions that foster a digital government thinking to integrate government operations and services around users and their needs.

In this regard, it was observed a generalised absence of agile approaches and skills to better understand and solve user needs among civil servants. This may risk ongoing efforts for a transformative digital government policy and may potentially lead to a replication of analogue process in digital means rather than real transformation. ADR and relevant stakeholders, including the Ministry for Research, Innovation and Digitalisation and the National Agency of Civil Servants may consider thinking of solutions out-of-the-box that help overcome some of the structural barriers for digital talent in the government while more transformative actions are taken. This could include the promotion of multi-level networks for peer learning, and dedicated activities for sharing of good practices and experiences (see Box 3.19).

Box 3.19. Development of multi-level networks for peer learning in the United Kingdom

In the United Kingdom, the Government Digital Service (GDS) implemented communities of practice to bring individuals working on similar tasks within the public sector in relation digital, data and technology issues. Communities of practice offer a platform for government practitioners to exchange expertise, address challenges, and enhance their skills. This not only improves the quality of services for users but also enhances the work environment in government.

Currently, the existing communities of practice are organised around key topics for government digital transformation such as:

- Accessibility
- Agile delivery
- Assisted digital and digital take-up
- Data engineering and science
- Design
- Digital buying
- Performance analysis
- Policy design
- Product and service
- Standards and assurance
- Technical cloud
- Technology (backend, frontend, technical architecture, web operations)
- User research and support

Source: Government Digital Service (n.d.[32]), *Communities of Practice,* https://www.gov.uk/service-manual/communities (accessed on 10 August 2023)

Other initiatives are looking at closing the gaps in terms of digital talent and skills across the Romanian public sector, economy and society, considering the low performance of the country in international benchmarks regarding digital skills – Romania ranks 26 out of 27 countries on Human Capital in the latest edition of the EU's Digital Economy and Society Index (European Commission, 2023[33]). For example, the initiative "Together in a Digital Romania" aims to further develop digital talent and skills to support the digital transformation of the country, including the development of a digital savvy workforce, including measures to support inclusion and accessibility promoted by economic and societal groups[24]. Similarly, as part of the European Commission's Digital Skills and Jobs Coalition, Romania's chapter defines a roadmap for further developing digital skills in the national society and economy, in particular targeting IT enthusiasts, students and professionals for upskilling initiatives[25]. In this regard, further articulation and upward learning and replication of good practices being currently developed in Romania could contribute to aligning ongoing efforts and leverage initiatives in the country to be applied with a particular focus on the public sector.

Within the implementation of the EU RRF, the most notable initiative on digital talent and skills in the Romanian public sector is led by NACS (ANFP, 2022[29]) (investment 16 - advanced digital skills training programme for civil servants). The programme aims to train 32,500 Romanian civil servants through training programmes defined based on the analysis for professional and user digital skills needs in the

country (see Box 3.20). The limited performance of Romania in different skills benchmarks including EU DESI reflects the positive advance taken by Romania though this programme focused on basic user and professional digital skills. However, it would be important to place these efforts into a broader strategy that also considers the skills needed to achieve full digital government maturity and which are not covered in the programme.

Box 3.20. NACS Programme for digital skills in Romania

In the context of the implementation of Romania's Recovery and Resilience Plan and the *area of investment 16 – advancing the digital skills of civil servants in Romania*, the country is implementing actions for 20M EUR to develop technical digital skills in the country. The goal is to provide training to 32,500 civil servants (30,000 for technical training and 2,500 for leadership training).

After applying a survey to more than 3,000 civil servants, NACS has clustered digital training needs in five modules that will serve to structure activities in the following years:

- Management: including teamwork, spreadsheet and cybersecurity.
- Communication: including use of online information, cybersecurity, teamwork, presentations, and optional activities on website development, image editing and digital marketing.
- Financial: including use of online information, cybersecurity, teamwork, spreadsheet, database management and project planning.
- Back-office: including use of online information, cybersecurity, teamwork, text editing, spreadsheet.
- ICT management: including digital tools for remote work/telework, digital tools for online training, software development, database management, advanced statistics, network management.

Source: ANFP (2022[29]), *Analisa Program de formare de competențe digitale avansate pentru funcționarii publici,* https://www.anfp.gov.ro/R/Doc/2023/PNRR/Anexa%20nr.%201%20-%20Analiza%20competente%20digitale.pdf

Similarly, particular emphasis could be given to training activities that support ongoing digital government priorities in Romania that would require dedicated talent and skills across public sector institutions. This includes data management and analytics to support the implementation of the National Interoperability Law, or specific professional and technical skills that support the implementation of the Government Cloud Policy. In the medium term, Romania could consider aligning future government priorities included in existing policy documents and EU funds actions with specific training actions that increase the changes that will be successfully developed and deployed.

Some public sector institutions in Romania are implementing specific actions to further develop digital talent and skills as part of their digital transformation journeys. For example, the Ministry of Internal Affairs organises regularly activities to promote ICT skills considering the level of digital maturity observed in this institution, and the prospect of developing a dedicated digital talent strategy given ongoing and future digital needs. Public sector institutions also acknowledged the role of the Administrative Capacity Operational Programme (POCA) conducted between 2014 and 2020 given specific actions developed jointly by the ADR and GSG to advance digital skills (see Box 3.21). The Ministry of National Defense (*Ministerului Apărării Naţionale*, MND) plays a key role by developing training courses and development of digital skills through the National Military Academy, which prepares individuals on digital professional skills to nurture specific public sector institutions with digital capacities. While positive, the OECD mission

observed that such an approach is further deepening the digital divide within the Romanian public sector, given the limited access to digital skills by smaller or less resourced public sector institutions in the country. In this context, Romania could consider looking at these examples to identify best practices to pilot training initiatives building on the good experience of other Romanian public sector organisations. This would help close the existing capacity gap between more mature public sector institutions in the Romanian public sector that, if not addressed, will only contribute to deepening the existing digital maturity breach to implement national and institutional digital transformation goals.

Box 3.21. Administrative Capacity Operational Programme 2014-2020 - POCA

The Administrative Capacity Operational Programme (POCA) was funded by the European Social Fund (ESF) under the thematic objective no. 11. This objective targets strengthening institutional capacities of public bodies and improving the efficiency of public administration. POCA aligned with two primary challenges in Romania's Partnership Agreement: Administration and governance (challenge 5) and Population and the social aspects (challenge 2).

The programme's primary goal was to boost the administrative capabilities of public authorities and entities, ensuring they can support a modern, competitive economy. In specific, priority axis 1 of the programme focused on improving public sector capacities, including training human resources equip Romanian civil servants with the necessary skills and knowledge to implement evidence-based public policies effectively.

Source: POCA, (2014[34]), *Administrative Capacity Operational Programme 2014-2020*, https://upb.ro/en/european-funds-department/poca/ (accessed on 10 August 2023)

Despite ongoing projects to further strengthen digital skills in the public sector such as the training under development by NACS, Romania would benefit from having a clearer strategic view regarding digital talent and skills in the public sector that goes beyond technical skills and that serves to achieve the strategic goals set for the digital transformation of the Romanian public sector. Given the valuable yet limited information regarding what specific areas and skills to target to achieve digital government maturity, Romania could consider some fundamental actions that would contribute to strengthening the public sector capacity to face the need of digital talent and skills. First, Romania could develop a dedicated skills and capability framework for government digital transformation that outlines specific job families and profiles around the priority projects and initiatives within the national digital government strategy in co-ordination between the ADR and NACS. Second, building on this capability framework, Romania could develop dedicated initiatives that develop digital skills across different functions and profiles through the academy format. In both cases, examples and evidence from OECD member countries can serve as inspiration to look at feasible and tested actions to further advance the digital needs in the national Romanian public workforce (see Box 3.22 and Box 3.23).

Box 3.22. United Kingdom's DDaT Profession Capability Framework

Introduced in 2017 to enhance uniformity in Digital, Data, and Technology (DDaT) job roles within the government, the Framework encompasses the job categories within the DDaT profession, such as Data, IT operations, Product and delivery, Quality assurance testing, Technical, and User-centred design. It provides insights into the required skills for each role level. The Framework offers a standardised terminology to articulate roles, pinpoint skills, and outline career trajectories.

The DDaT Framework has been instrumental in fostering and expanding cross-government DDaT professional communities, pinpointing skill shortages, and refining the training provided by the GDS Academy. Users can leverage the Framework to:

- Discover the responsibilities of various government roles.
- Grasp the skill sets required for specific positions.
- Determine skills necessitating enhancement for career advancement.
- Evaluate skills ahead of performance assessments.
- Draft impactful job advertisements.

Source: Government Digital Service (n.d.[35]), DDaT Profession Capability Framework, https://www.gov.uk/government/collections/digital-data-and-technology-profession-capability-framework (accessed on 10 August 2023)

Box 3.23. Government Digital Academy in Denmark

The Danish Government Digital Academy was founded to equip civil servants with essential digital competencies, addressing the growing need for digital know-how in public administration. The responsibility for conceptualizing and managing the academy is under the remit of the Agency for Digital Government. Their primary aim is to extend digital training to higher-ranking officials and employees throughout ministries and associated government bodies.

The courses at the academy are primarily tailored for public sector employees. This especially caters to those who might not have had extensive IT or digital administration education. Some notable courses are 'Government Officials within the Digital Public Sector' and 'Cyber and Information Security'. The academy is operated by a dedicated team that oversees the management, development, and administration of courses and other associated events.

Decisions regarding course offerings stem from the "Model of Digital Skills". This model outlines the digital competencies necessary within government bodies. Its core objective is to propagate a standardized framework that augments coordination and understanding across various government sectors. The model earmarks four pivotal areas of digital expertise deemed crucial for the Danish public administration. Delving deeper, these areas split into 12 subcategories, encapsulating a total of 32 distinct digital skills.

Figure 3.5. Government Digital Academy training

Source: Agency for Digital Government (n.d.[36]),*The Danish Government Digital Academy,* https://en.digst.dk/policy/government-digital-academy/ (accessed on 10 August 2023)

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4 Towards a Data-Driven Public Sector

This chapter focuses on Romania's efforts to build a data-driven public sector. It briefly examines the approach to data governance within the Romanian public sector, exploring both the opportunities and challenges that need to be considered. It also analyses Romania's open government data policy and its implementation.

Introduction

In today's fast-changing digital world, data has become incredibly valuable for organisations in all industries, including the public sector. If data is collected, managed, and used well, it has the power to transform public governance, improve services, and enhance policy decisions based on solid evidence.

The OECD's work on data-driven public sector (DDPS) and open government data (OGD) spans back more than a decade. The 2014 Recommendation on Digital Government Strategies includes a provision to "create a data-driven culture in the public sector" and the 2021 Recommendation on Enhancing Access to and Sharing of Data lays out general principles and policy guidance on how governments can maximise the benefits of enhancing data access and sharing arrangements while protecting individuals' and organisations' rights (OECD, 2014[1]; OECD, 2021[2])(see Box 4.1).

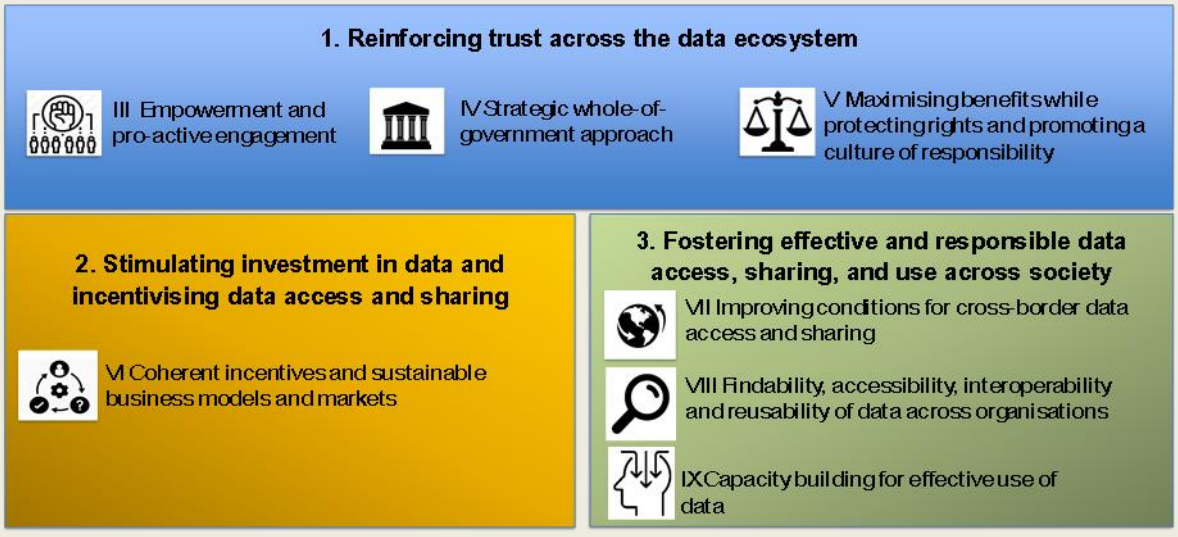
Box 4.1. OECD standards supporting a data-driven public sector

Recommendation on Digital Government Strategies

Create a data-driven culture in the public sector, by:

- developing frameworks to enable, guide, and foster access to, use and re-use of, the increasing amount of evidence, statistics and data concerning operations, processes and results to (a) increase openness and transparency, and (b) incentivise public engagement in policy making, public value creation, service design and delivery;
- balancing the need to provide timely official data with the need to deliver trustworthy data, managing risks of data misuse related to the increased availability of data in open formats (i.e., allowing use and re-use, and the possibility for non-governmental actors to re-use and supplement data with a view to maximise public economic and social value).

Figure 4.1. Recommendation on Enhancing Access to and Sharing of Data



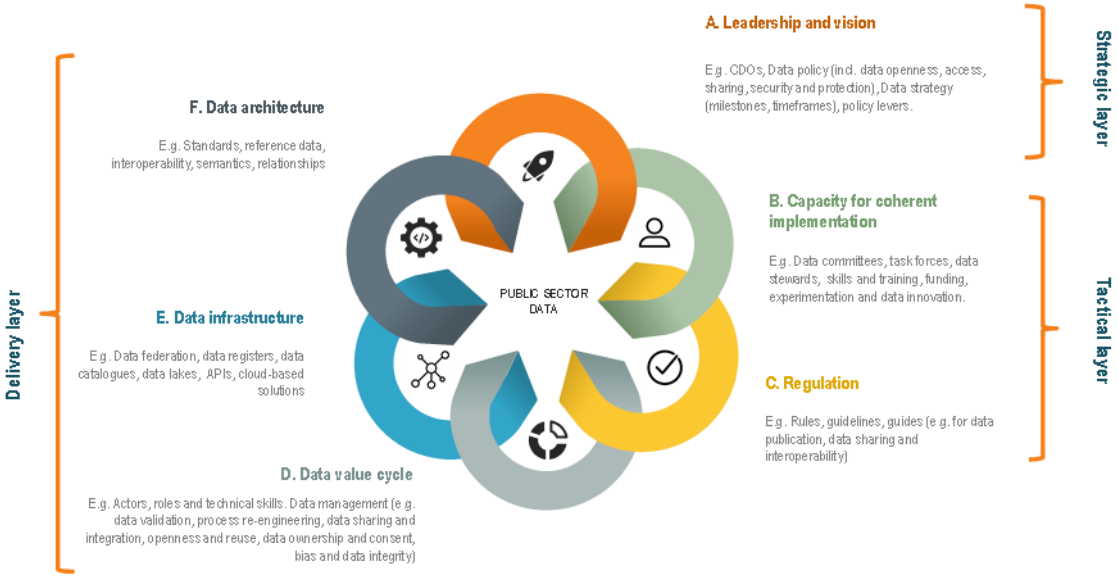
Source: OECD (2014[1]) *Recommendation of the Council on Digital Government Strategies*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0406 ; (OECD, 2021[2]), *Recommendation of the Council on Enhancing Access to and Sharing of Data*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0463

This chapter is divided into two sections. The first section briefly examines the data governance approach within Romania's public sector, exploring both the opportunities and challenges that need to be considered. The second chapter analyses Romania's open government data policy and implementation. Drawing on preliminary data from the OECD Survey on Open Government Data 5.0, this section aims to support the Romanian government in integrating open data into their overall digital government strategy. It also includes examples of indicators to monitor the impact of open government data.

Public sector data governance in Romania

Data governance refers to “diverse arrangements, including technical, policy, regulatory or institutional provisions, that affect data and their cycle (creation, collection, storage, use, protection, access, sharing and deletion) across policy domains and organisational and national borders” (OECD, 2023[3]). In the public sector, robust data governance is a necessity to enhance data access and sharing for the public benefit. The OECD framework on public sector data governance (Figure 4.2) is divided into three layers, which are all equally important for building the foundation for a DDPS (OECD, 2019[4]). The first, strategic layer focuses on defining leadership and a strategic vision. The tactical layer covers the rules and institutional and inter-intuitional provisions enabling a coherent and coordinated approach to managing data. The third layer, delivery, focuses on data infrastructure and architecture, and factors enabling effective management of data across its lifecycle.

Figure 4.2. OECD framework for data governance in the public sector



Source: OECD (2019[4]), "Data governance in the public sector" in *The Path to Becoming a Data-Driven Public Sector*, OECD Publishing, Paris, https://doi.org/10.1787/9cada708-en.

In Romania, there is currently no official public body designated to drive the Data-Driven Public Sector (DDPS) agenda. However, in practice, this role is partly assumed by the Authority for Digitisation of Romania (ADR), which has the mandate to promote actions enabling interoperability of IT systems and data exchange among public sector institutions, as well as the Ministry for Research, Innovation and Digitalisation. Concerning open government data, the responsibility currently rests with the General Secretariat of the Government (GSG), as part of the country's open government policy, which is also responsible for operating the open data platform data.gov.ro. Additionally, the Special Telecommunication

Service in Romania plays a governance role, as it is responsible for the existing data infrastructure in the country and, as outlined in ADR's plans, will have a crucial role in implementing the national infrastructure platform and the government cloud (as discussed in earlier sections). To the contrary, in many OECD countries, dedicated public bodies are given clear leadership, and accountability for efforts to promote a data-driven public sector (see Box.4.2).

Box 4.2. Data leadership in the public sector in Spain and Denmark

General Secretariat for Digital Government, State Secretariat for Digitalisation and Artificial Intelligence, Ministry of Economic Affairs and Digital Transformation, Spain

Spain's General Secretariat for Digital Government is responsible for transforming the Spanish Public Administration into a more modern and "data-driven" administration. Their goal is to use citizens' and public administrations' information efficiently to design public policies aligned with Spain's social, economic, and territorial reality, as outlined in the country's 2021-2025 Digitalization Plan for Public Administration.

Division for Technology and Data, Agency for Digital Government, Denmark

The Division for Technology and Data within Denmark's Agency for Digital Government is responsible for providing an improved framework for data sharing, reuse, and the adoption of new technology.

This office is tasked with preparing, coordinating, and implementing tasks related to data and new technology in the public sector, including the implementation of the EU Open Data Directive. This involves ensuring interoperability between Denmark's data agenda and that of the EU, as well as maintaining a common public sector digital architecture. Additionally, the office is responsible for overseeing several initiatives related to cloud solutions, data strategies, language technology, and artificial intelligence.

Source: Government of Spain (2023[5]), *Digitalisation plan of the AAPP – Objectives*; Agency for Digital Government (2023[6]) *Division for Technology and Data.*

In addition to policy leadership, Romania currently lacks a formal data strategy tailored to the public sector. Instead, most actions are driven by updated or new legal and regulatory frameworks aimed at compliance with EU directives. Similarly, Romania also lacks a comprehensive strategy for open government data (see Open government data in Romania). One significant challenge stemming from the absence of a unified vision and strategic direction is that efforts so far in this area have been fragmented and uncoordinated, with varying levels of maturity in data management practices across public institutions.

In light of these circumstances, a cohesive and well-defined data strategy could help guide Romania's public sector. Data strategies enable accountability and can help define leadership, expectations, roles and goals (OECD, 2019[4]). The formulation of data strategies can benefit from open and participatory processes, thus integrating the inputs of actors from within and outside the public sector. This approach helps foster a more trusted culture where data access and sharing are viewed as positive developments, rather than a risk.

Today, an increasing number of countries recognise the importance of formulating a national data strategy. This strategy encompasses not only technical or practical details but, more importantly, governance, capabilities, collaboration, and culture, all of which are vital in enabling a DDPS to flourish. (See Box 4.3.).

Box 4.3. National data strategies in Sweden and the United Kingdom

Sweden's strategy for increased access to data for AI and digital innovation

Sweden's national data strategy was adopted by the Swedish government in 2021. It has the overarching goal of making Sweden a leading nation in data sharing to support AI and digital innovation, with the purpose of strengthening welfare, competitiveness, and a sustainable society.

The strategy is divided into six areas of action: (1) Increased access to data, (2) Open and controlled data sharing, (3) Collaboration and culture, (4) Governance, regulation, and monitoring, (5) Research, development, and skills, (6) EU and international cooperation. Each area of action has a measurable sub-goal.

United Kingdom's national data strategy

The UK's national data strategy was launched in 2020 and one of its main missions is to transform government's use of data to drive efficiency and improve public services. The strategy was developed through extensive research and stakeholder engagement. The mission related to government are focused on five key areas, these are:

1. **Quality, availability and access:** striving towards improved data quality that is consistent, a clear understanding of what data is held and where, better data collection, and efficient data-sharing between organisations.
2. **Standards and assurance:** setting and driving the adoption of standards for data, leading to greater consistency, integrity and interoperability, and enabling data to be used widely and effectively across government.
3. **Capability, leadership and culture:** developing world-leading capability in data and data science across central and local government, so that leaders understand its role, expert resource is widely available, staff at all levels have the skills they need, and a 'data-sharing by default' approach across government tackles the culture of risk aversion around data use and sharing.
4. **Accountability and productivity:** opening government up to greater scrutiny and increasing accountability, ensuring that this drives improvements in productivity, policy and services for people, while also ensuring data security; and using procurement to drive innovation and better outcomes.
5. **Ethics and public trust:** this transformation will only be possible and sustainable if it is developed within a robust ethical framework of transparency, safeguards and assurance which builds and maintains public trust in the government's use of data.

Source: Government of Sweden (2021[7]) *Data - an underutilised resource for Sweden* (in Swedish); Department for Science, Innovation and Technology (2020[8]) *National Data Strategy*.

Moving to the tactics of the data governance framework, this aspect focuses on facilitating coordinated implementation of data-driven policies, by leveraging skills and talent, collaboration, and networks, as well as legal and regulatory frameworks underpinning good data management and use practices.

In terms of legal frameworks, Romania has seen a lot of recent developments based on the implementation or transposition of EU frameworks and directives. This most notably includes the EU Interoperability Framework, for which Romania has adopted *Law no. 242 of July 20, 2022, regarding data exchange between IT systems and the creation of the National Interoperability Platform*, and also the transposition

of the EU Open Data Directive with *Law no. 179 of June 9, 2022, on open data and re-use of public sector information* (see Box 4.4).

Box 4.4. Legal framework for a DDPS in Romania

Law no. 242 of July 20, 202 regarding data exchange between IT systems and the creation of the National Interoperability Platform

The enactment of Law no. 242 by the Romanian Parliament in 2022 represents a significant step towards improving data governance in the public sector and facilitating trusted data sharing and use throughout Romania. As per the law, its primary objective is to "*adopt measures related to technologies, equipment, software programs and the data used by them to contribute to increasing the degree of interconnection between IT systems of the Romanian authorities and public institutions, and to facilitating the exchange of data, based on the principles and objectives of the European Interoperability Framework.*"

The law mandates that public authorities and institutions share and access data from public basic registers through the new national interoperability platform. Consequently, they are restricted from requesting information from individuals or organisations if that information is already accessible through the platform, thus adhering to the "once only" principle. Notably, the law also assigns significant data governance roles to the Authority for Digitisation of Romania (ADR), which is responsible for overseeing, regulating, and evaluating the operation of the national interoperability platform, while the Ministry of Research, Innovation, and Digitalisation (MCID) is also tasked with its implementation.

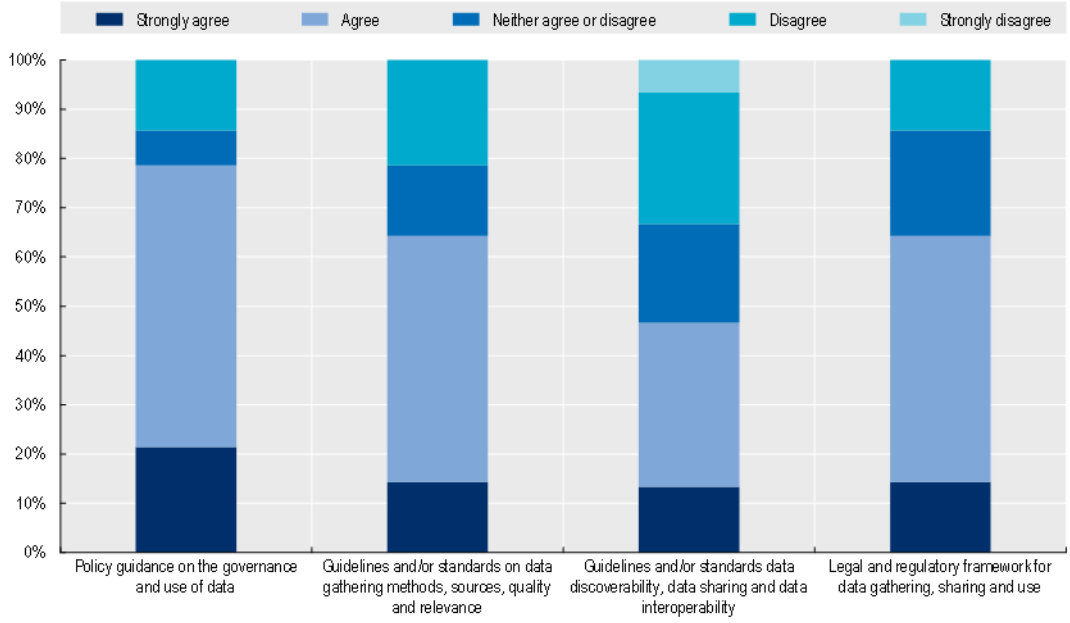
Law no. 179 of June 9, 2022, on open data and re-use of public sector information

The Law 179 2022 sets the legal framework for the reuse of data and documents in the possession of public entities and public enterprises in Romania, including for the purpose of developing new information products and services, as well as the practical ways to facilitate reuse. The Law fully transposes the EU Open Data Directive but also goes a step further by making it mandatory for governmental agencies to publish their data and providing a more comprehensive lists of high-value datasets to publish.

Source: Parliament of Romania (2022[9]) *Law no. 242 of 20 July 2022 on the exchange of data between IT systems and the creation of the National Interoperability Platform*; Parliament of Romania (2022[10]) *Law no. 179 of 9 June 2022 on open data and the re-use of public sector information*.

According to surveyed public institutions, the legal and regulatory framework supporting data gathering, sharing and use is well-adapted to expectations and needs. On the other hand, fewer perceive that the access to guidelines and/or standards to support data management and sharing is sufficient, in particular relating to data discoverability, sharing and interoperability (see Figure 4.3).

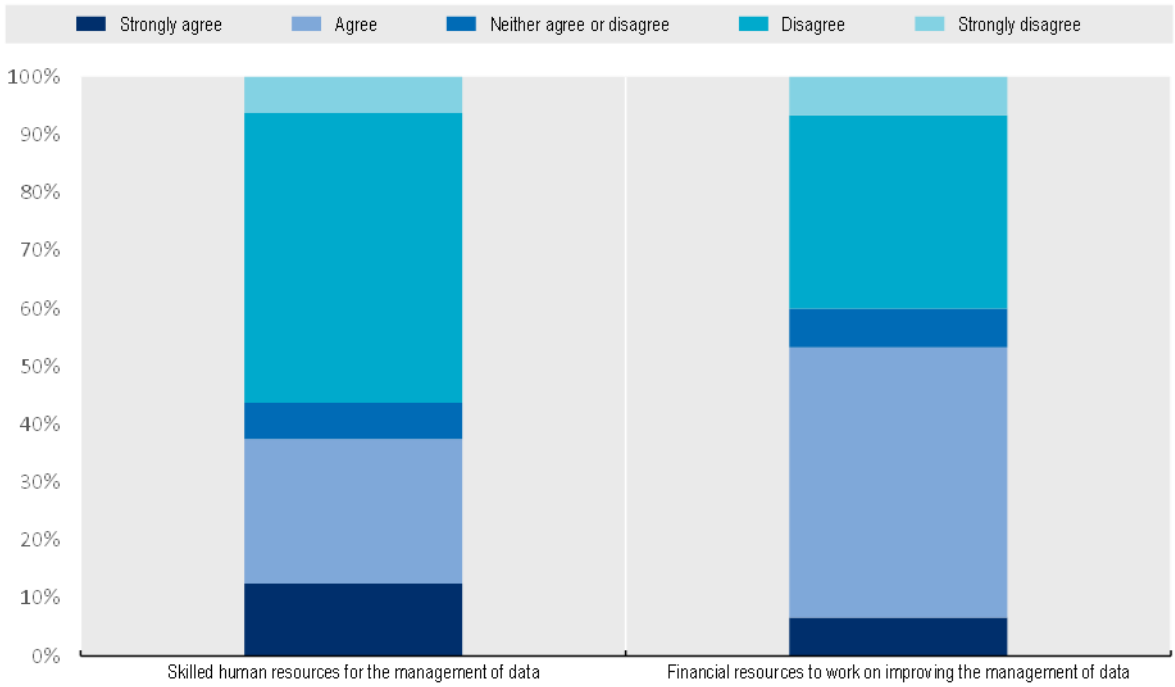
Figure 4.3. Access to standards and guidelines on data sharing are needed to support public institutions



Note: Graph based on the answer of 16 Romanian public sector institutions to a survey. Answers reported as "I don't know" are excluded from the results.
Source: OECD (2022[11]) *Digital Government Survey of Romania: Public institutions* (unpublished).

This is an important finding, considering that the Romanian government should now be transitioning from legal measures to implementation. Public institutions evidently need resources and support to deliver on expectations and obligations. However, enhancing access to guidelines and standards alone may not be sufficient for the complete implementation of a data-driven public sector in Romania, in conjunction with the discussed legal measures. Conversations with stakeholders in Romania have stressed the challenge of a shortage of skills within the public sector. This notably includes a scarcity of data professionals and difficulties in competing with the private sector. The fact-finding mission unveiled that public sector institutions lack the necessary in-house expertise to address data governance and data sharing challenges, often relying heavily on large contractors, which has led to issues of vendor lock-in. As seen in Figure 4.4 a majority of surveyed institutions disagree with there being sufficiently skilled human resources for data, while most do not consider financial resources as an issue.

Figure 4.4. Skills for data management could be improved



Note: Graph based on the answer of 16 Romanian public sector institutions to a survey. Answers reported as "I don't know" are excluded from the results.
Source: OECD (2022[11]) *Digital Government Survey of Romania: Public institutions* (unpublished).

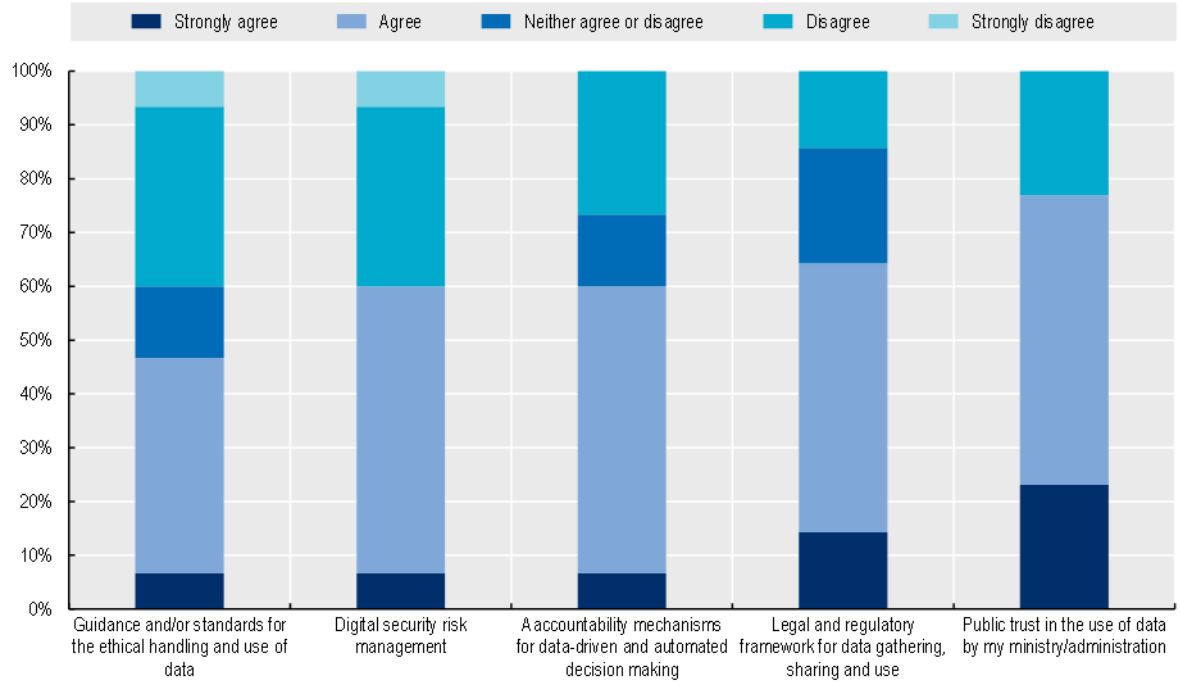
Similarly, the Romanian public sector is lacking a culture of openness, collaboration and innovation, with public sector organisations exhibiting reluctance in exchanging data, leading to complex protocols requiring bilateral agreements to govern such collaborations. Interviews with government stakeholders during the fact-finding mission also revealed a hesitance, particularly among public sector institutions with a higher level of digital government maturity, to participate in initiatives such as the government cloud.

While the challenges related to skills and culture are not unique to the field of data, it is evident that one of Romania's most significant obstacles to progress in this area is prioritising building a culture for a DDPS through capacity building and new ways of collaboration. As noted by the OECD's Interim Assessment Report on Strengthening the Innovative Capacity of the Government of Romania (OECD, 2023[12]), Romania's public sector has a legalistic administrative culture and a public sector that generally focuses on compliance, which creates an environment that does not favour innovation. Despite this challenge, many other countries have found ways to enhance collaboration and build a culture prone to experimentation with data and digital tools, including through informal networks like those in Sweden[1] or collaborative labs in Luxembourg[2].

Moving to the final, delivery, layer of data governance, Romania have invested heavily in several projects. In terms of data infrastructure, notable initiatives include the government cloud, as discussed in preceding chapters. Romania's government cloud project was initiated as a response to the lack of infrastructure to maintain services and systems running during the COVID-19 pandemic. Led by the ADR, the initiative aims to create a centralised and integrated way for the government to use different types of digital services, and securely store data. While cloud storage and computing are an important part of data infrastructure, there has been public debate about the cloud as well as the interoperability law relating to the potential misuse of personal data. As reported in the Open Government Review of Romania (OECD, 2023[13]), levels of trust in government in Romania have been very low for several years, similar to other countries in the region.

The public's confidence in the Romanian government fell from 20% in 2007 to 16% in 2020 (OECD, 2021[14]). This contradicts the fact that a majority of surveyed public institutions believe there is public trust in the use of data by their institutions (see Figure 4.5).

Figure 4.5. Romanian public servants feel there is public trust in their use of data



Note: Graph based on the answer of 16 Romanian public sector institutions to a survey. Answers reported as "I don't know" are excluded from the results.
Source: OECD (2022[11]) *Digital Government Survey of Romania: Public institutions* (unpublished).

Moving forward, it would be important for the Romanian government to ensure they act so to gain the public's trust in the implementation of digital government projects, in particular those involving the handling and use of sensitive data, through proper policies and by engaging openly and proactively with civil society.

When looking at data architecture and data lifecycle management, in particular base registry data, Romania has made considerable progress by enacting the national interoperability law. As Romania rightly stated in the law, base registers are the foundation that enables interoperability. The different base registers in Romania are, as in most countries, under the responsibility of different public institutions (see Table 4.1). For example, the Ministry of Internal Affairs manages the population registry for natural persons, and the vehicle registry. Other data holders include the National Agency for Fiscal Administration (natural person tax register) and National Agency for Cadastre and Land Registration (cadastre and land register).

Table 4.1. List of base registries in Romania

National IT system for records of persons
National electronic register for street names
Integrated system of cadastre and land register
National register of mobile advertising

Central trade register and local trade registers
National registry of driver's licenses and registered vehicles
National animal identification and registration system
Database of the court portal
Register of natural person taxpayers and taxpayers of legal entities
Data register regarding mineral resources
NGO national register
Single matriculation register
National electronic system
Insolvency proceedings bulletin

Source: Parliament of Romania, (2022[9]), *Law no. 242 of 20 July 2022 on the exchange of data between IT systems and the creation of the National Interoperability Platform*.

The success of efforts outlined in the interoperability law with respect to base registry data management and re-use will rest on the capacity of moving from legal provisions to implementation. This will require reliable leadership and governance, and dedicated support from the central government to build the capacity of all public institutions in this space, in particular those less digitally advanced. Several OECD countries have made considerable efforts to improve in this area. One example is Norway, where the government has established a common information governance framework including guidance, standards and specifications, and information models for foundational data such as person and addresses (see Box 4.5).

Box 4.5. Norway's framework for information governance in the public sector

The Norwegian government recognises the critical importance of good management of information in the public sector (and the data that contains it) and has created a national information governance framework led by the Norwegian Digitalisation Agency. The framework contains:

- Guidance, including:
  - Step-by-step guide for getting an overview of its own data
  - Maturity model for information management
  - Publishing open data
  - Describing data quality
  - How to establish systematic management of information security
  - How to harvest and share language data
- Standards and specifications, including:
  - Standard for describing datasets, services and catalogues
  - Standard for harmonisation of concepts
  - Specifications for describing data quality, information models
  - Common vocabulary for classification of public services and resources
- Information models, including:
  - Principles of information models and common modelling rules
  - Person and Entity – joint information model
  - Address – common information model

Source: Norwegian Agency for Digitalisation (2023[15]), *Framework for information governance*.

Open government data in Romania

Open government data[3] (OGD) is essential for the advancement of digital government. By removing barriers to accessing valuable information collected by the public sector, OGD initiatives can foster innovation, drive economic growth, and empower citizens. OGD can also encourage effective and structured data management, by standardising data management practices for publication and maximised re-use.

In recent years, Romania has progressed in open data primarily through the country's open government agenda. In the 2020-2022 OGP action plan, Romania had a dedicated action for open data, which was assessed by the OGP as one of the most successfully implemented initiatives of the entire action plan. According to the results report, while some sub-deliverables remained unfulfilled due to resource constraints, the commitments made in the action plan led to progress in dataset publication, engagement of government and civil society institutions, and supported the transposition of the EU Directive on Open Data into Romanian law (see earlier section) (Open Government Partnership, 2023[16]). According to the GSG, the main limitations to publishing data as part of the NAP commitments were lack of dedicated resources at the institutional level, changes in the organisation of the government institutions, the absence of a normative framework, and the fact that data publication was not a priority for institutions (neither at the political nor technical level). The recent 2022-2024 NAP contains additional open data deliverables, in part to address commitments that were not fulfilled earlier (Open Government Partnership, 2022[17])(see Box 0.6).

Box 4.6. Open data in Romania's 2022-2024 OGP action plan

- Publication of open data according to agencies' publication plans and in addition, data identified as priority for publication
- Organisation of interinstitutional and mixed working groups for the elaboration of the implementation of the publication plans related to the provisions of the Law
- Organisation of a joint working group (institutions, re-use community) to identify new high value datasets (other than those included in the law, i.e. the implementing act of the Directive) and measures necessary to increase the quality and number of published data sets. Interinstitutional approaches to ensure the application of the 'open by design and by default' principle in public administration
- Organising webinars with institutions and re-users to promote examples of good practice in publication and re-use. Although this activity was also included in the 2020-2022 NAP commitment, being almost completed, it is part of a permanent process for the creation of data ecosystems (publishers, re-users), adapted to the regulations in force (i.e. new regulations and identified needs)
- Providing certified open data training courses

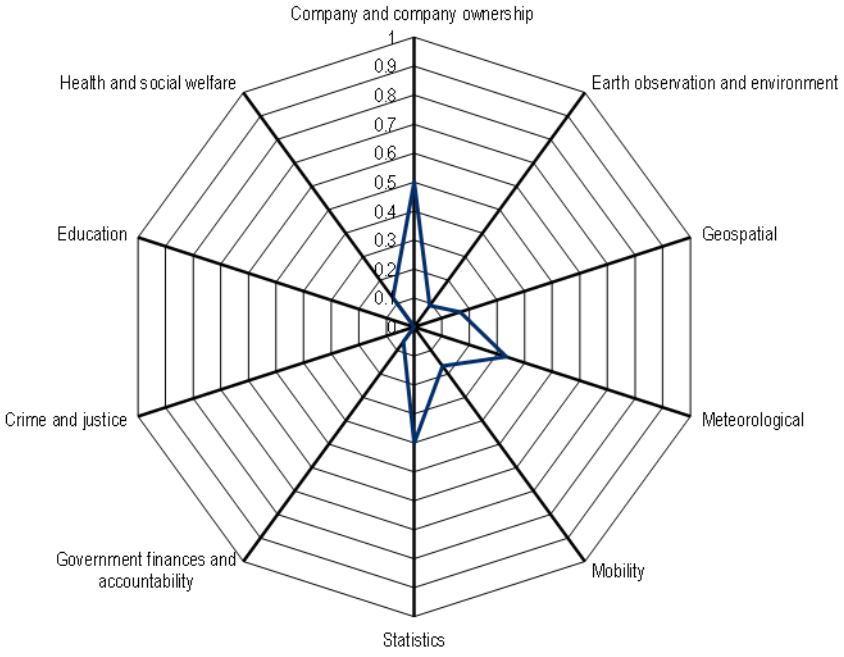
Source: Open Government Partnership (2022[17]), *Romania 2022-2024 National Action Plan.*

Romania does not have a dedicated formal strategy for OGD. Consequently, ongoing efforts to implement this initiative lack a coherent and aligned approach across public sector institutions. Awareness and capacities for OGD within Romanian government are also limited, as observed during the fact-finding mission, and confirmed during a dedicated workshop on OGD. In line with the evidence observed for public sector data governance, sharing and use, public sector institutions have not consolidated central efforts for OGD into institutional structures, roles and functions. Instead, roles for OGD are often assigned to civil

servants working either on public sector integrity, transparency, or IT management. Consequently, efforts for publication and reuse are often not coherently aligned across the public sector.

When assessing the implementation of open data policies in Romania, it is evident that the country has made progress but still has room for improvement. Figure 4.6 shows preliminary results from the OECD Survey on Open Government Data 5.0, illustrating the percentage of data categories classified as 'high value' and available as open data in Romania. In total, only 18% of the evaluated data categories are accessible as open data in Romania. Romania performs relatively well in categories such as 'Statistics,' 'Meteorological,' and 'Companies and company ownership,' where between 33% and 50% of the data is available. In contrast, Romania lags behind in other high-value data categories such as geospatial and mobility data (17%), government finances and accountability (7%), and earth observation and environment (9%). Notably, there are no datasets available for the categories of education and crime and justice.

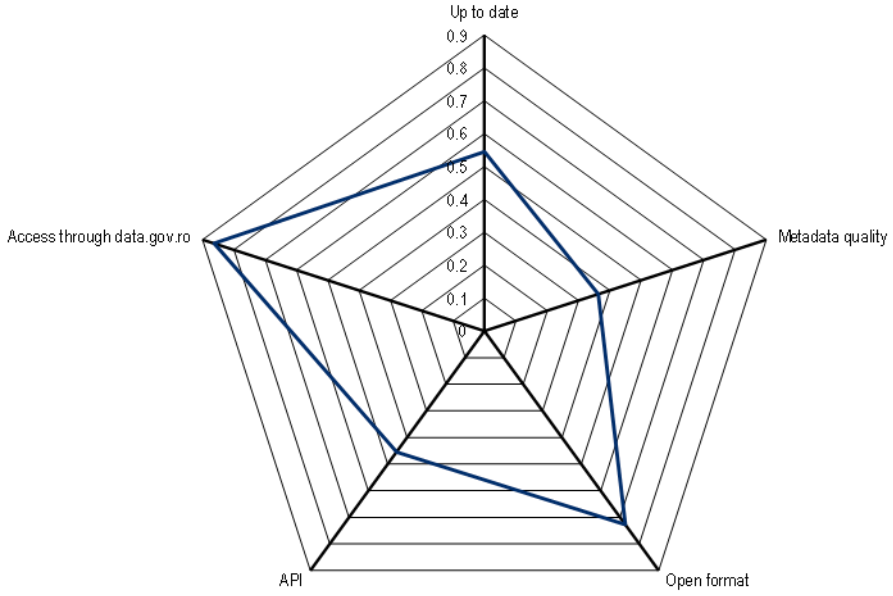
Figure 4.6. Availability of high-value datasets in Romania



Note: Preliminary results. Data are considered available if they are published 1) free of charge, 2) with an open licence, 3) in machine-readable format.
Source: OECD (2022[18]), *Survey on Open Government Data 5.0* (unpublished).

Although data is accessible as open data, it does not necessarily reflect the quality or ease of access to data. The OECD's analysis of published open data takes into account factors such as accessibility through a central portal, availability through standard Application Programming Interfaces (APIs), metadata quality, the use of open formats, and timeliness. Figure 4.7 illustrates that among the open data available in Romania evaluated by the OECD, a significant proportion is accessible on data.gov.ro (86%) and is published in open, non-proprietary formats (73%). Romania still has room for improvement in ensuring that published data maintains high-quality metadata (33%), remains up-to-date (55%), and can be accessed through APIs (45%). During the fact-finding mission, the main challenges in publishing high-quality data in Romania were observed to be associated with limited technical capabilities for data publication within individual authorities and a general lack of robust data governance to support consistent and coordinated data management.

Figure 4.7. Accessibility of high-value datasets in Romania



Note: Preliminary results. The graph shows the assessment of data which are already available as open data.
Source: OECD (2022[18]), *Survey on Open Government Data 5.0* (unpublished).

Currently, government support for data publication in Romania is limited to providing guidance for publication and general instructions on the open data portal. While the commitments in the OGP plan, such as open data training courses and working groups, are positive steps, it is crucial to ensure their long-term sustainability. Ideally, these efforts should be closely linked to broader initiatives on data management to prevent open data from being perceived as a disconnected side project.

There are few initiatives in Romania aimed at promoting data reuse, both within and outside the government. Several public institutions have acknowledged the need for more substantial efforts to promote data reuse, particularly by civil society organisations, SMEs, and start-ups. While the new OGP commitments include engaging with stakeholders to build a data ecosystem, it is essential to establish a sustainable and comprehensive approach to engagement. This can be achieved through partnerships with civil society organisations or industry associations that can assist the government in connecting with the right stakeholders and identifying actors who would benefit from data reuse.

Lastly, a critical aspect of supporting data reuse is monitoring the actual usage and impact of open government data. This aspect has been identified as a priority for the Romanian government. Examples of costs and benefits of open data publication are presented in Box 0.7, which could serve as the basis for assessing the impact of open data through cost-benefit analyses. This assessment can be conducted using available data sources and through new data collection methods.

Box 4.7. Towards measuring the impact of open government data in Romania

Below are examples of projected benefits and costs resulting from open data publication. The assumption for these benefits to materialise is that the data are published in a fit-for-purpose manner—complete with metadata, in machine-readable formats, with a defined open licence, and accessible through APIs. The data should be provided in formats that maximise their potential for reuse by various stakeholders, including SMEs, larger companies, public sector organisations, and civil society.

	COST	BENEFIT
PUBLIC SECTOR	• Decrease in revenues from selling data; • Increase in resources allocated to preparing datasets; • Infrastructure investments (portal, APIs); • Data governance and compliance; • Data security and protection; • Public relations and communication; • Skills development and human resources.	• Decrease in costs for purchasing data; • Decrease in administrative costs related to data purchases; • Decrease in costs associated with processing FOI requests; • Improved data governance and quality management; • Enhanced services, efficiency, and trust.
EXTERNAL STAKEHOLDERS		• Decrease in costs for purchasing data; • Access to information previously not attainable, e.g. for journalism, research, civic space; • Innovative capacity & competition, productivity, and job-creation among SMEs. • Environmental monitoring and climate adaption.

These costs and benefits encompass both tangible and intangible aspects, making them either straightforward or challenging to quantify. Likewise, while it is feasible to measure some costs and benefits directly associated with open data publication, establishing a direct causal relationship – impact – between some costs/benefits and open data publication can prove difficult. Hence, it is advisable to complement quantitative assessments with qualitative analyses of open data's influence on various factors. Furthermore, conducting in-depth studies on thematic areas like geospatial data or public procurement data can provide valuable insights, and extrapolating results may be possible. Examples include studies on the value of open geospatial data in Denmark[4] and a socio-economic cost-benefit analysis of high-value datasets in Sweden[5].

Source: Author's own elaboration.

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Notes

[1] See more details in https://www.esamverka.se/

[2] See more details in https://govtechlab.public.lu/en/lab.html

[3] 'Open data arrangements' refers to non-discriminatory data access and sharing arrangements, where data is machine readable and can be accessed and shared, free of charge, and used by anyone for any purpose subject, at most, to requirements that preserve integrity, provenance, attribution, and openness Source: OECD Recommendation on Enhancing Access to and Sharing of Data (2021). https://www.oecd.org/mcm/Recommendation-of-the-Council-on-Enhancing-Access-to-and-Sharing-of-Data_EN.pdf

[4] See more details in https://eng.sdfi.dk/data/open-data

[5] See more details in https://www.lantmateriet.se/sv/Om-Lantmateriet/Samverkan-med-andra/psi---regeringsuppdrag-till-lantmateriet/#qry=s%C3%A4rskilt%20v%C3%A4rdefulla%20datam%C3%A4ngder

5 Service design and delivery in the digital age

This chapter presents the state of the art on public service design and delivery in Romania, giving specific attention to the existing institutional settings, culture and initiatives undertaken to advance towards human-centric and integrated digitalisation of government services in the country.

Introduction

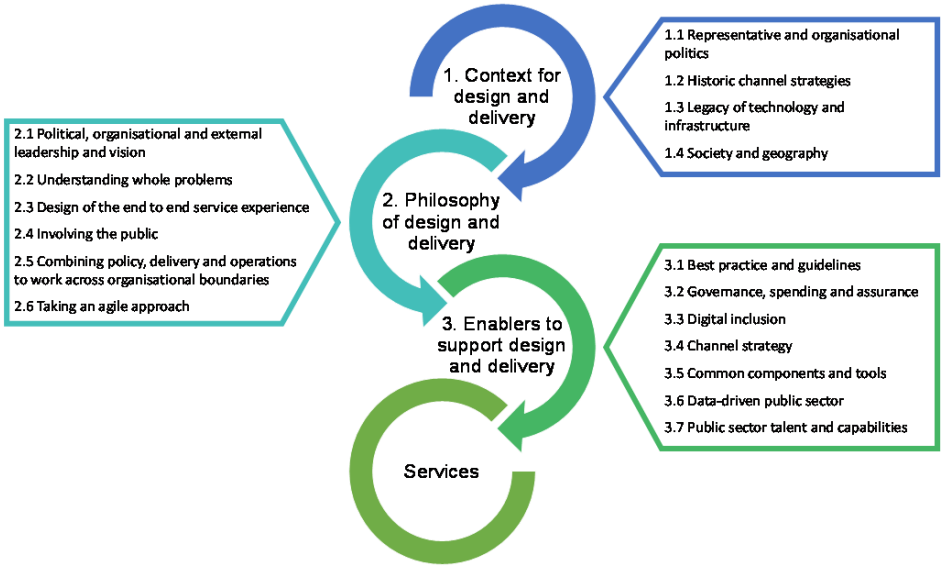
Public services are the focal point of interaction between individuals and legal entities with the state. In recent years, the emphasis on leveraging digital technologies and data to enhance public services has steadily increased. The COVID-19 pandemic significantly accelerated these trends, compelling the delivery of public services through digital channels. Governments, faced with a surge in demand for digital public services, had to ensure service quality while harnessing the potential of digital technologies and data to transform service design and delivery. It was also crucial to mitigate the increase of digital divides and exclusion, stemming from various factors such as limited digital skills in the public sector and across the society and access to necessary digital tools.

Addressing the gap between those benefiting from the digital age and those excluded requires an understanding of different service delivery channels and user needs. Digital government plays a strategic role in integrating various services and channels to deliver a coherent and satisfactory user experience. The “end-to-end user journey” approach allows governments to better meet user needs by focusing on comprehensive problems and streamlining interactions and public sector processes. Service design and delivery for the digital age relies on a deep understanding of user needs without adding to burdens of public servants.

To ensure this intricate task of designing and delivering services that adapt to evolving societal needs, it is critical to reconsider the entire process of service design and delivery. This involves cultivating collaborative relationships with the public to comprehend their needs and rethinking the internal culture, processes and resources of governments. The OECD Framework for Public Service Design and Delivery identifies three foundational areas for analysing public service design and delivery (OECD, 2020[1]):

1. The context encompassing representative and organisational politics, historical channels, technology and infrastructure legacies, and societal and geographic influences.
2. The philosophy of service design and delivery, which includes leadership, interdisciplinary collaboration across organisational boundaries, holistic problem understanding, end-to-end service experience design, public involvement, and agile delivery.
3. The presence of an ecosystem of supportive resources and tools that enhance the quality of experience and outcomes for all users, as well as the agility of service teams in responding to user needs and transforming the service landscape.

Figure 5.1. OECD framework for public service design and delivery in the digital age



Source: (OECD, 2020[1]), Digital Government in Chile – Improving Public Service Design and Delivery, https://doi.org/10.1787/b94582e8-en

Based on the framework, this chapter highlights the context and the philosophy and culture service design and delivery, and assesses the enablers to support design and delivery in Romania.

Context for service design and delivery

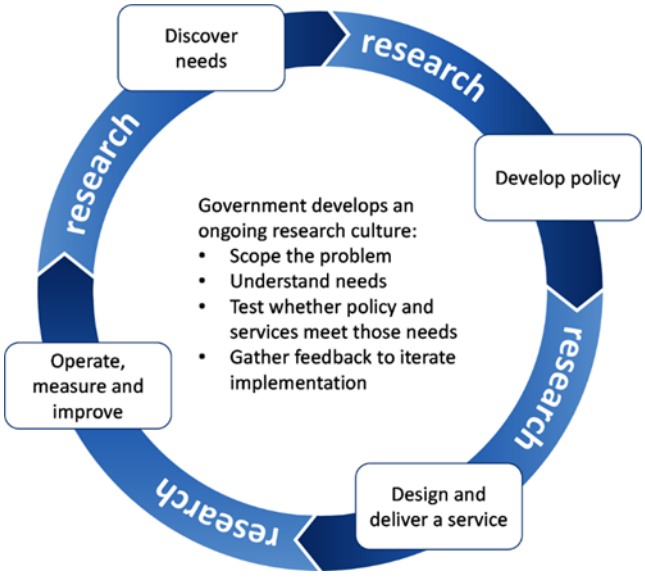
A government's ability to design and deliver public services to generate value to its users is influenced by the specific contextual factors, especially those outlined in Figure 5.1. The formulation of a philosophy for service design and delivery, and the allocation of necessary enablers are affected by multiple variables. The context for service design and delivery encompasses representative and organisational politics, and the crucial role of leadership in securing a shared vision, long-term strategic planning, financial investments, and the authority to remove existing and possible obstacles. Furthermore, past interventions in public services exert significant influence. The processes, data flows and channels can create an unclear landscape of multiple user journeys. The legacy of physical infrastructure, technologies, data and service channels from the past all impact the agility and capacity of the public sector in pursing its goals of transforming public services. Last, factors such as societal and geographical considerations shape the backdrop for users assessing public services.

Chapter 2 discussed the first dimension, *Contextual factors*, of the OECD Framework on the Governance of Digital Government, including political and administrative culture and structure, socio-economic factors, technological and policy context. As presented fully in Chapter 2, Romania encounters challenges in its journey toward the successful digital transformation of the public sector. The political and administrative culture presents a significant hurdle, impeding a cohesive and sustainable digital evolution of government functions. Furthermore, frequent shifts in organisational structures have somewhat lessened digital leadership, impacting policy alignment and action coordination in the digital government sphere. Additionally, Romania faces socio-economic challenges, including regional disparities, gender gaps, a declining population, and a digital divide, which warrant careful consideration to ensure designing and delivering of inclusive and responsible government services to all users. Addressing these challenges is imperative for Romania to create an enabling environment for the public sector to design and deliver quality services in today's digital age.

Philosophy of service design and delivery

The philosophy and culture of service design and delivery plays a vital role in establishing a sustainable environment where comprehensive digital transformation and high-quality services can thrive. The most effective interactions are those that are straightforward to complete and leverage data to anticipate and proactively address tasks that may have previously required additional interactions. An essential prerequisite is that these services are designed to cater to the needs of the entire spectrum of society, including vulnerable groups with accessibility requirements or a preference for in-person assistance. Achieving this would need cross-organisational collaboration involving diverse, multidisciplinary teams that can comprehend complex challenges and devise end-to-end internal and external user experiences under an adequate leadership and a shared vision. This entails continuous involvement of both internal and external user groups throughout the entire process. Ultimately, agile methodologies facilitate ongoing learning and iterative enhancements, ensuring that the evolving service continually adds value over time (see Figure 5.2).

Figure 5.2. An agile approach to the interaction between government and the public during policy making, service delivery and ongoing operations



Source: (OECD, 2020[1]), Digital Government in Chile – Improving Public Service Design and Delivery, https://doi.org/10.1787/b94582e8-en

Providing leadership and setting vision

The OECD Digital Government Index which measures digital government maturity based in the Digital Government Policy Framework found that the highest levels of maturity prioritise a culture of user-driven and open by default, and embody the principles of digital-by-design, government as a platform and a data-driven public sector (OECD, 2020[2]; OECD, 2020[3]) These key characteristics of a mature digital government enable governments to design and deliver services that are proactive, resilient and inclusive. The effective implementation of these principles hinges on stable leadership and consistent organisational commitment.

The OECD Framework for digital talent and skills in the public sector further highlights the pivotal role of securing leadership in shaping the public sector to embrace a transformative approach to service design and delivery (OECD, 2021[4]). Consequently, without the leadership, the drive for transformation is not primarily fuelled by advocating for users and their needs. Instead, it tends to be framed as an urgency to

streamline bureaucracy, with technology seen as the key to accelerating processes and reducing costs. This often results in a narrow focus on meeting specific targets, rather than fostering a sustainable and naturally evolving change in how organizations perceive the role of digital technology and data in driving transformation.

As discussed fully in Chapter 2, the current governance for digital government in Romania reveals a notable absence of the central leadership that can articulate a cohesive vision and strategic direction to foster user-driven, proactive and inclusive services suitable for the digital age. The Authority for Digitisation of Romania (ADR) under the Ministry of Research, Innovation and Digitisation (MCID) is leading the digital transformation efforts of the Romanian public sector. The General Secretariat of the Government (GSG) co-ordinates at the whole-of-government level. Nevertheless, the objectives and functions of the ADR listed in Chapter 2 are largely focused on managing information systems that facilitate the provision of online services with no specific mandate to drive the service design and delivery agenda at the national level. This absence poses a challenge to the realisation of public services that are tailored to meet the diverse needs of users of the Romanian society.

Another obstacle to transforming the design and delivery of public services is the diverse array of institutions within the Romanian public sector at varying levels of digital maturity. In the absence of a shared vision and strategic oversight, when the public sector institutions have disparate levels of digital readiness, it can further lead to inconsistencies in service design, delivery channels and the overall user experience. Some organisations may be adept at leveraging digital technologies to offer seamless and user-friendly services, while others may struggle due to limited digital capabilities. This disparity results in a disjointed service landscape, making it challenging to establish a standardised, intuitive user journey. Moreover, it often implies a lack of data governance, further impeding efforts to create a seamless, integrated, and user-driven approach to service design and delivery across the country.

Governments have taken different approaches to support their service design and delivery agenda. One of the most common practices are to have a service design and delivery strategy as part of other national strategies or even as a stand-alone strategy (Box 5.1). The government of Romania can consider developing such strategy to ensure coherent and sustainable service design and delivery across the public sector with a shared vision and objectives. As the leading organisation for digital government, the ADR and the MCID can be entrusted to take on this role. Additionally, inter-ministerial co-ordination should be actively promoted, leveraging the role of the GSG to ensure seamless collaboration and alignment of efforts across the government.

Box 5.1. The OECD country examples of a service design and delivery strategy

Comprehensive Government Innovation Promotion Plan of Korea

The Korean government establishes and facilitates a "comprehensive government innovation promotion plan" that includes public service innovation strategies every year. In the 2021 comprehensive government innovation promotion plan, three strategies related to public services were proposed: 1) provision of customised/intelligent services for individuals, 2) A full-fledged transition to the era of digital proof, and 3) expansion of inclusive service to bridge the digital divide.

Client-oriented public administration strategy 2030 of the Czech Republic

The government addresses service design and delivery policies in the "Client-oriented public administration strategy 2030", sectoral digital transformation strategies, Government ICT Strategy (and eGovernment principles), National (eGovernment) architecture plan as well as in the relevant legislations. The national legislative framework of eGovernment defines roles, responsibilities, processes, shared services, rules for data sharing and re-use as well as other provisions that directly or indirectly impact service design and delivery.

The UK's standards, guidelines, code of practice on services

The United Kingdom's primary mechanisms for influencing service delivery across government is the Service Standard and Technology Code of Practice. Specifically, the Service Standard sets out 14 criteria for teams across government to work to create excellent digital services. The Service Manual is a separate tool that sits underneath the Standard, guiding how teams can implement the criteria within the Standard. The Technical Code of Practice is detailed guidance on what is expected of technology in government, such as that underpinning services. It agrees on common approaches (such as use of cloud and API standards) to ensure that government is building modern, scalable and secure technology infrastructure.

Source: OECD (2022[5]), Bench learning on Service Delivery from relevant examples in EU Member and non-member States

Furthermore, identifying and nurturing digital government champions within the public sector is paramount. These champions should be recognised for their expertise and success in digital transformation and should play a pivotal role in imparting their knowledge and best practices to institutions with limited digital capacities, enabling them to progress and bridge the digital divide. Scaling up these champions' efforts across the public sector will catalyse fostering an inclusive and collaborative environment to design and deliver quality and coherent services across the public sector in Romania. Considering that the ADR has a very open, collaborative culture involving other public institutions, it can facilitate identifying and scaling up successful practices of the digital champions.

Designing the end-to-end public service experience

The development of public services can result in fragmented user experiences across different government sectors over time. This fragmentation can occur due to the independent creation of digital or telephone channels specific to each institution as part of their "multi-channel" strategies or because certain institutions have closed physical locations while others have not. Consequently, users may need to visit multiple locations to address a particular issue, leading to a disconnect where interactions started online cannot seamlessly transition to in-person interactions, and vice versa. For effective transformation, public services need to be designed by encompassing the entire journey from the user's initial attempt to resolve an issue

to its final resolution, covering both the user experience and the processes for internal users, and incorporating all channels involved, following an omnichannel approach (OECD, 2020[1]).

In Romania, like in all parts of the world, the COVID-19 pandemic expedited the shift from in-person service provision to remote basis. Nevertheless, the importance of delivering an experience aligned with the public's needs and choices through various channels remains undiminished.

Table 5.1 clearly shows that the delivery of public services occurs through various channels in Romania, with face-to-face interactions at government offices being the most prevalent. These physical visits to relevant institutions or authorities are frequent and often the primary choice for service seekers. Furthermore, institutional or sector-specific websites, alongside telephone communications, play significant roles in service delivery. Traditional written communication, such as letters or printed forms, remains a commonly used channel as well.

Table 5.1. The most frequently used service channels

	Ranking according to the relative importance of each of the following channels in delivering transactional services for the central government
Rank 1	Face-to-face service delivery at the offices of the institution/authority delivering the service
Rank 2	Institutional or sectorial website (e.g. ministry, municipality, hospital)
Rank 3	Telephone interaction with the institution/authority delivering the service
Rank 4	By traditional written communication, i.e. letter or printed forms
Rank 5	National website for government services
Rank 6	By email
Rank 7	Traditionnel mobile services (e.g. SMS)
Rank 8	Face-to-face service delivery in shared services centre
Rank 9	Telephone interaction with shared hotline or call centre
Rank 10	Mobile application-based services

Source: OECD (2022[6]) Digital Government Survey of Romania – leading organisation

In this landscape, it is important for Romania to resist the exclusive adoption of "digital by default" approach that eliminate offline accessibility entirely. Such an approach overlooks the needs of specific segments of society, which clearly prefer non-digital channels, and could worsen digital disparities. Although the idea of transitioning to a paperless system may seem like a straightforward transformation, its true benefits will not be actualised if the online interface retains any shortcomings of the current procedures. Therefore, it is crucial to adopt a design thinking approach to craft seamless end-to-end experiences that streamline the entire process by eliminating redundant steps, re-using data, and innovatively leveraging digital technology to provide value to users.

Furthermore, embracing an omnichannel approach is crucial for ensuring seamless and efficient service delivery. While digital channels are gaining prominence, non-digital channels, especially face-to-face interactions, and traditional written communication, continue to hold substantial importance. To enhance accessibility and streamline the service experience, Romania should consider adopting the omnichannel approach, where all channels are integrated and optimized to cater to diverse preferences and needs of its citizens.

Setting an enabling environment for the digital transformation of public services

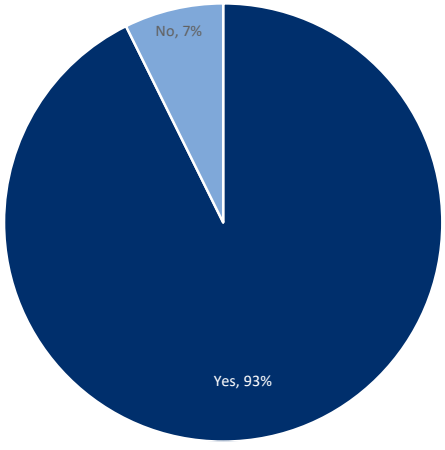
Guidelines, standards and capacities

Common guidelines and standards play a pivotal role in shaping public sector capabilities for digital government, providing a unified framework for service providers to secure a consistent and coherent approach to the digitalisation of government services. Transitioning to digital government entails the formulation of coherent guidelines and standards that assist public sector entities in designing and providing services with users at the centre of the transformation process, which in turns contributes to foster a cohesive and streamlined experience for users (OECD, 2020[1]). This encompasses practical advice and standards to guarantee uniform accessibility of digital services, interaction with users, sourcing of digital products and services, and validation both before and throughout the service development process.

In the case of Romania, support to service providers for the digitalisation of government services is under the remit of the Authority for Digitalisation of Romania. However, and in line with the findings and policy recommendations issued for the governance of digital government, Romania has the opportunity to further equip ADR as the national champion for the digital transformation of the public sector with capabilities that go beyond development and management of common technology platforms and solutions. Fact-finding mission and survey evidence revealed the very limited availability of common guidelines and standards that equip service providers to design and delivery government services in the country, and the limited role that the ADR plays in advancing the curation and development of service design and delivery standards and guidelines across the government. Securing the availability of such common and shared instruments is pivotal to close capacity gaps across the public sector and promotes a consistent and coherent design and delivery of government services across sectors.

Within the remit and the attributes of the ADR, functions on the administration and management of the national digital government strategy (NDGS) are clearly stronger and more explicitly articulated than capabilities to support and assist public sector institutions in the digitalisation of their internal processes and services (Government of Romania, 2019[7]). Compared to OECD countries, the NDGS in Romania is one of the few that do not have clear provisions to support the accessibility and proactiveness of digitally-enabled government services (see Figure 5.3).

Figure 5.3. Accessibility and proactiveness of government services within NDGS



Note: Preliminary results of 41 member and accession countries that completed the survey
Source: OECD Survey on Digital Government 2.0

As such, ADR is defined and perceived as a technical entity that manages and develops information systems and digital technologies for the digital transformation of the Romanian central government. However, compared to OECD countries this function could also include dedicated provisions to secure the quality, convenience, and user-centricity of government services. This comprises the development of practical guidance and standard setting on user research, service design, agile management, multidisciplinary teams and other functions that represents a more forward-looking approach to secure that government services will ultimately meet and solve the needs of intended users.

Box 5.2. Remit of Korea's Ministry of Interior and Safety on service design and delivery

In Korea, the Ministry of Interior and Safety (MOIS) is responsible for the digital government policy. Within its remit, MOIS is responsible for securing the quality and availability of digital public services in the country.

MOIS' mission includes a dedicated provision to provide more integrated and customised services to citizens. This includes key responsibilities such as design and deliver digital services for the benefit of citizens; ensure security, robustness, and reliability of digital services; and prevent potential duplication in government investment on digital technologies.

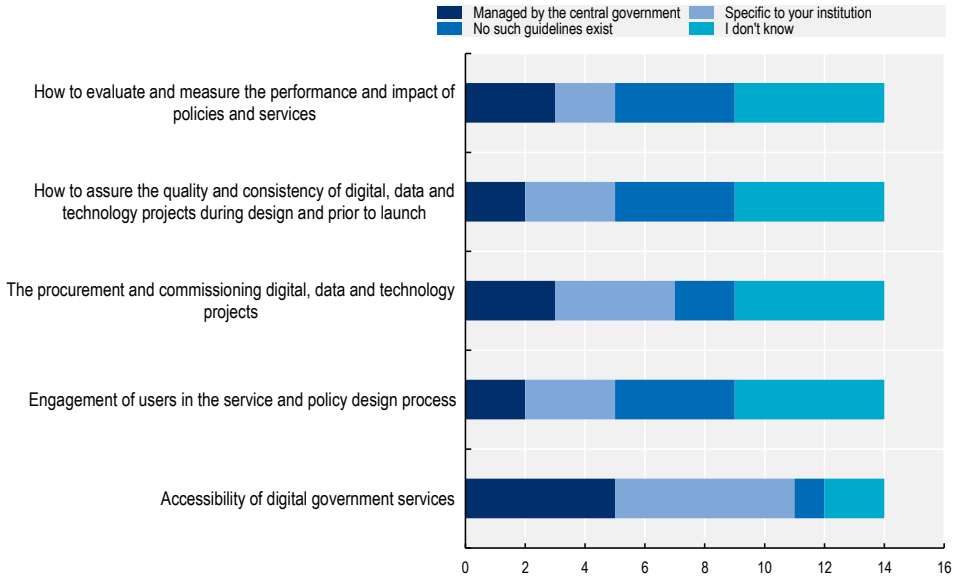
Source: Ministry of Interior and Safety of Korea (n.d.[8]), https://www.mois.go.kr/eng/sub/a03/EGovernment/screen.do (accessed on 10 August 2023)

In the context of Romania, it is important to distinguish the extent to which regulatory frameworks can effectively equip public sector institutions in the design and delivery of services. Laws and similar regulatory frameworks often define *what* should be done, as opposed to guidelines and standards that frame *how* a certain action should be completed. In Romania, this role of setting regulatory frameworks for the digital transformation of Romania is played by the ADR. Concrete examples are the issuance and discussion in Parliament of the government cloud and national interoperability framework laws.

In Romania, public sector institutions have an unclear understanding of the scope, extend and purpose of standards and guidelines for digital government, and in the absence of central instruments existing regulatory frameworks are taken as guiding tools (see Figure 5.4). This is the case with public procurement, in which the transposition of the EU Directive 2014/24 resulted in a set of dedicated regulatory instruments that are considered as supporting tools for the sourcing of digital technologies (Government of Romania, 2016[9])[1]. However, public sector institutions require also softer and more actionable instruments. In this regard, evidence from the fact-finding meetings indicate that more efforts are needed to translate regulatory frameworks into actionable guidance that effectively support service design and delivery.

Similarly, in the absence of central guidelines and tools to support the design and delivery of government services, more mature public sector institutions have established internal protocols and supporting material for this purpose. This is the case of the Ministry of Internal Affairs, which over the years has built strong capabilities to design and deliver government services and enabling tools. Romania could consider systematising and learning from the experience of more mature public sector institutions to leverage tools that can be replicated across the Romanian public sector, acknowledging the national administrative culture.

Figure 5.4. Awareness of written guidelines to support service design and delivery



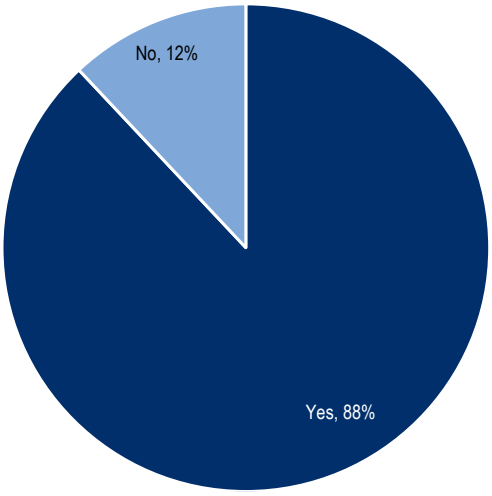
Note: Graph based on the answer of 16 Romanian public sector institutions to the survey.
Source: OECD Survey of Digital Government in Romania 2022

The context for digitalisation of government services happens in the context of increasing expectations for the Romanian government to increase the availability of government services through the national single service delivery platform e-guvernare.ro. Similarly, the request from the European Commission to transpose digital government policies such as the Digital Compass (European Commission, 2023[10]), and the implementation of dedicated resources for digital transformation through the EU Recovery and Resilience Fund[2] poses challenges regarding public sector capacities to digitalise government services under standards that secure a consistent and homogeneous experience for users.

Within this context, one of the paramount tools to be provided for the digital transformation of the Romanian public services relates to the availability of a dedicated and national service standard. A service standard refers to a set of principles that provide a shared definition for the quality and behaviours associated with public service design and delivery. Such principles will usually provide the basis for setting expectations with delivery partners (whether those are public servants or non-governmental suppliers), and in some cases may also be the criteria against which formal assessments of performance are carried out (OECD, 2020[3]; OECD, 2020[1]; Welby and Tan, 2022[11])

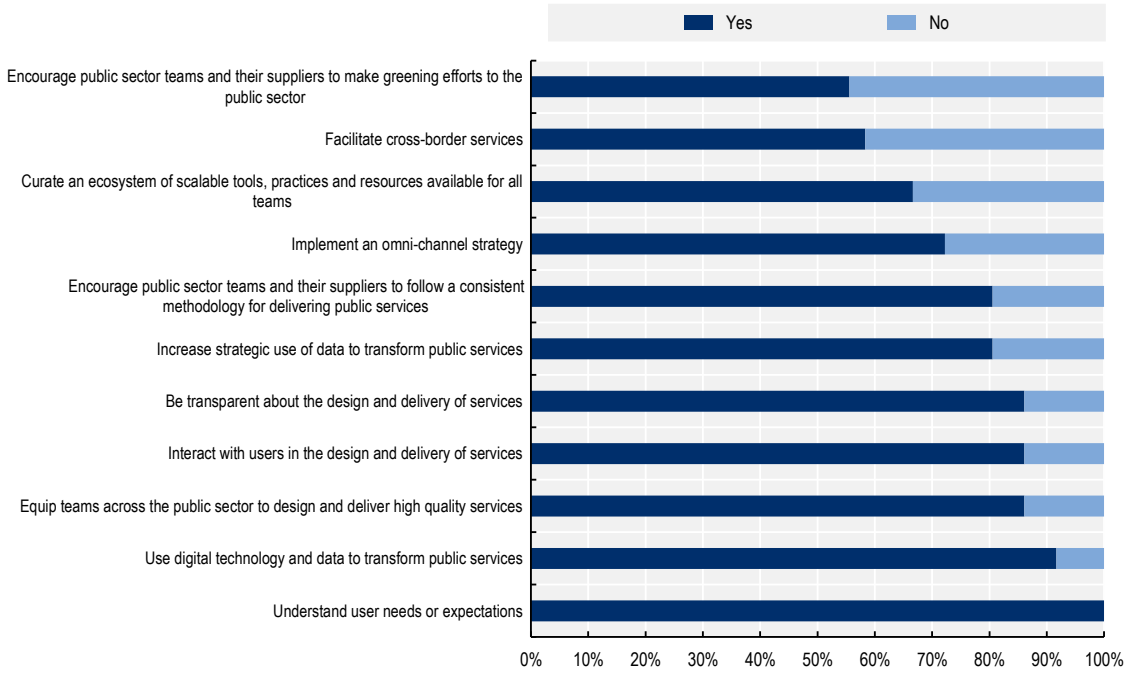
Evidence from OECD countries show that the availability of a service standard is a pillar within digital government policies, with 87% of member and accession countries having such policy lever to guide the digitalisation of convenient and seamless public services (see Figure 5.5). Countries that have a service standard have given predominance to understanding and interacting with users in service design and delivery (see Figure 5.6). In contrast, cross-border service delivery and the development of an ecosystem of scalable tools and common enablers are less prioritised within these standards.

Figure 5.5. Availability of a service standard at central/federal level



Note: Preliminary results of 41 member and accession countries that completed the survey
Source: OECD Survey on Digital Government 2.0

Figure 5.6. Key requirements embedded in service standards



Note: Based on countries that have a service standard, preliminary results of 41 member and accession countries that completed the survey
Source: OECD Survey on Digital Government 2.0

The availability of such an instrument is foundational for public sector institutions to secure a coherent and consistent digitalisation of government services. For this purpose, Romania and the ADR could consider developing a dedicated and comprehensive service standard that support the ambitions set at national and

European level regarding more user-centric and seamless digital government services. The service standard could give a prominent focus to user research and service design practices given the limited extent to which public sector institutions are engaging users throughout service design in meaningful and result-oriented ways. Similarly, the service standard could help close the gap among public sector institutions in key areas for digital government such as ICT procurement and the Government as a Platform approach (OECD, 2020[3]) to develop and curate scalable digital public infrastructure that supports breaking down policy and organisational siloes. Similarly, such a standard would help Romanian public sector institutions to effectively use key planned or under development digital public infrastructure such as government cloud and interoperability frameworks to focus on effective use to meet user needs and beyond the technicalities of their operation.

The elaboration of such standard would benefit from a collective effort across the public sector in Romania, bringing together different public sector institutions that are key for the effective design and implementation of the standard. This includes main service providers and entities responsible for key enablers such as the Ministry of Internal Affairs, the Ministry for Agriculture and Rural Development, the National Agency for Cadastre and Land Registration, the Ministry of Finance and the Special Telecommunications Service in order to leverage existing digital maturity. Furthermore, Romania could find inspiration in OECD countries that have fully embrace a user-centric approach in service design and delivery to formulate a service standard. This includes building on the best practices across OECD members (see Box 5.4) as well as standard-setting instruments such as the OECD Good Practice Principles on Public Service Design and Delivery in the Digital Age (Box 5.3).

Box 5.3. OECD Good Practice Principles for Service Design and Delivery in the Digital Age

The digital age provides great opportunities to transform how public services are designed and delivered. The Good Practice Principles for Service Design and Delivery in the Digital Age provide a clear, actionable and comprehensive set of objectives for the digital transformation of public services.

The principles are advisory rather than prescriptive, allowing for local interpretation and implementation. They should also be considered in conjunction with wider OECD work to equip governments in harnessing the potential of digital technology and data to improve outcomes for all. Reflecting insights gathered from across OECD member countries, these nine principles are arranged under three pillars:

1. ***Build accessible, ethical and equitable public services that prioritise user needs, rather than government needs***
   - Understand users and their needs
   - Make the design and delivery of public services a participatory and inclusive process
   - Ensure consistent, seamless and high-quality public services
2. ***Deliver with impact, at scale and with pace***
   - Create conditions that help teams to design and deliver high quality public services
   - Develop a consistent delivery methodology for public services
   - Curate an ecosystem of enabling tools, practices and resources
3. ***Be accountable and transparent in the design and delivery of public services to reinforce and strengthen public trust***
   - Be open and transparent in the design and delivery of public services
   - Ensure the trustworthy and ethical use of digital tools and data
   - Establish an enabling environment for a culture and practice of service design and delivery

Source: OECD (2022[6]) *Good Practice Principles on Public Service Design and Delivery in the Digital Age*, https://doi.org/10.1787/2ade500b-en

Box 5.4. Service standards across OECD countries

France

France established a design system in order to provide a similar look and feel to the creation and delivery of services, alongside with accessibility and security standards. It also has quality guidelines for online administrative procedures and a programme to improve website accessibility for disabled people, both provided by the DINUM (Digital Directorate). These two initiatives are completed by self-assessment tools and through check-lists. The DINUM analyses over 200 procedures each quarter and helps administrations on user experience, accessibility audits, user research, prototyping and design topics. For instance, the "Place de l'Emploi Public" website that centralises all job offers from the state administration and local authorities has been re-designed to comply with the accessibility requirements.

Portugal

Launched in October 2022, Mosaico is a Digital Service Standard introduced by the Portuguese Government to streamline the user experience across its various online services. Designed with citizens and businesses at its core, Mosaico promotes coherence in digital public services, aiming to enhance the public's interaction with the government through a unified identity. This ensures a transparent, straightforward, and inclusive access to services. Intended for use by public administration staff, external bodies, citizens, businesses, and civil society entities, Mosaico prioritises user needs. It incorporates four key aspects: Stages, Principles, Profiles, and Technical areas. Supported by best practices, guidelines, legislation, and other resources, Mosaico offers adaptable content tailored to individual roles and contexts.

Australia

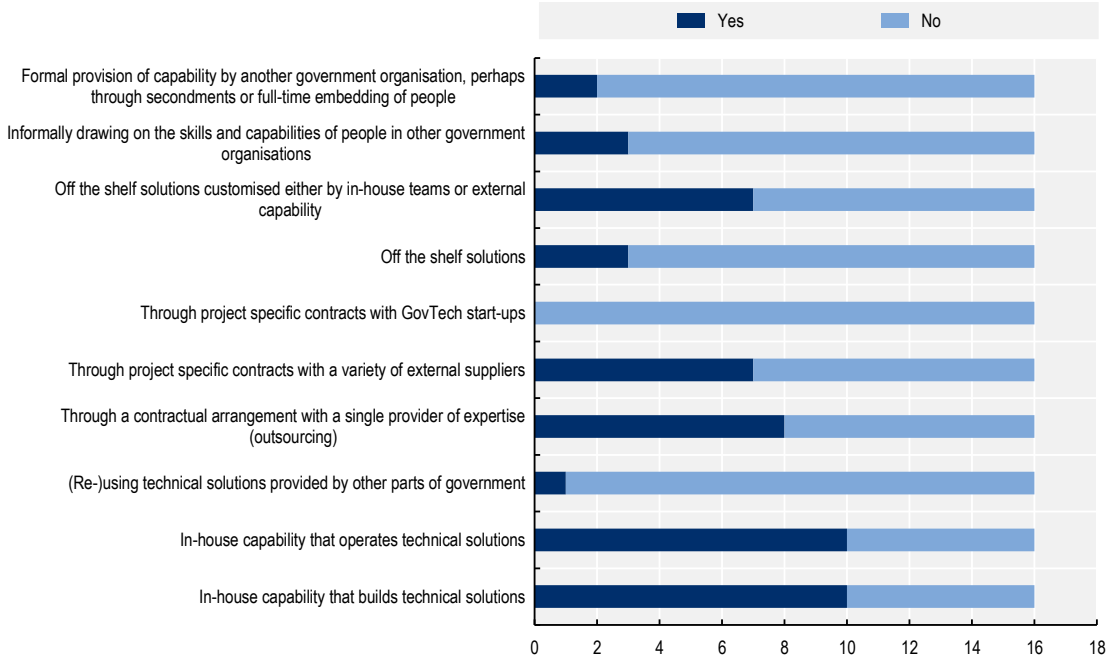
The Digital Service Standard is a collection of best practice principles aimed at assisting agencies in creating digital services for Australians that are straightforward, clear, and quick. It ensures these services deliver value to the public and address user needs, promoting regular enhancements based on evidence and past experiences. This standard also guarantees a uniform appearance and user experience across government services. The DTA (Digital Transformation Agency) uses the Digital Service Standard, among other digital policies, to evaluate the quality and robustness of digital or ICT-enabled investment suggestions before they are presented for Government review. Details on the criteria for these proposals can be found in the Whole-of-Government Digital and ICT Oversight Framework. This policy, effective from 6 May 2016, is mandatory for all Non-corporate Commonwealth entities and pertains to all new public-facing information and transactions, plus any redesigned services post this date. The DTA also recommends its adoption by other governmental bodies.

Source: DINUM (2023[12]), *System de Design Gouvernement Numérique*, https://www.systeme-de-design.gouv.fr/ (accessed on 10 August 2023), AMA (2022[13]), *Mosaico Service Design Toolkit*, https://mosaico.gov.pt/ (accessed on 10 August 2023) and DTA (n.d.[14]) Service Standard, https://www.dta.gov.au/help-and-advice/about-digital-service-standard (accessed on 10 August 2023)

Regarding capacities and practices to design, develop and maintain services, in Romania public sector institutions tend to develop internal capacities to manage and implement digital transformation initiatives (see Figure 5.7). The role that ADR plays as IT service provider in some specific sectors within the Romanian public sector is noticeable. For instance, the ADR has the remit to support the development of

IT systems for public procurement as well as to assist with financial resources and technical support in the digitalisation of specific sectors upon request (Government of Romania, 2019[7]).

Figure 5.7. Institutional approaches to design, build and maintain online services



Note: Graph based on the answer of 16 Romanian public sector institutions to the survey.
Source: OECD Survey of Digital Government in Romania 2022

However, the extent to which ADR can support the digitalisation of government services is limited and public sector institutions rely significantly in third parties for the development and maintenance of IT systems to enable digital services. This includes private sector providers, or central government entities that provide IT services such as the Special Telecommunication Service (see next section). Given the structural challenges to attract and retain digital talent in the Romanian public sector (see Chapter 3), the country could consider developing further practical guidance in critical areas that support an agile and cost-effective implementation of digital transformation initiatives, including digitalisation of government services. This includes the development of dedicated guidelines for ICT procurement as well as agile management. Romania can leverage the extensive support provided by the European Union to their members to acquire competencies in agile management through PM² Methodology (see Box 5.5) as well as learn from specific efforts done at national level to develop agile standards and ICT procurement guidelines (see Chapter 3). However, efforts are needed to extend as much as possible the access to such instruments in ways that all public sector institutions can benefit from peer learning and regional support.

Box 5.5. EC PM² Project Management Methodology and Training

PM² is a project management methodology implemented by the European Commission in 2007, with its first version internally published in 2008. As of 2018, PM² is accessible to the public via the Publications Office of the European Union. Specifically tailored to address to the needs of European Union institutions and projects, PM² is designed to empower project managers to adeptly oversee the complete lifecycle of their initiatives, ensuring successful delivery of solutions and benefits to their respective organisations. Nevertheless, its flexible nature means it is suitable for projects across any institution. Characterised by its simplicity and adaptability, PM² offers teams the liberty to customise the methodology based on specific project requirements.

Furthermore, a dedicated PM²-Agile Guide was developed into the PM² methodology for institutions and organisations. PM²-Agile incorporates Agile and Lean best practices from global standards and the European Institutions' experiences.

Source: European Commission (n.d.[15]), *PM² Project Management Methodology*, https://pm2.europa.eu/index_en (accessed on 10 August 2023)

Common digital tools and enablers

Government cloud

To facilitate service design and delivery in the digital age, it is pivotal to establish robust digital foundations to support service transformation across the public sector. This is particularly crucial amidst extensive digital transformation projects which encompass numerous individual services and in particular when public sector entities lack the adequate capacities or resources to implement such policies. Additionally, the imperative to secure convenient and seamless services implies public sector institutions imperative need to promote a coherent and interoperable approach in public digital transformation, assuring that every institution has the ability to exploit digital tools and data in a consistent and enduring manner.

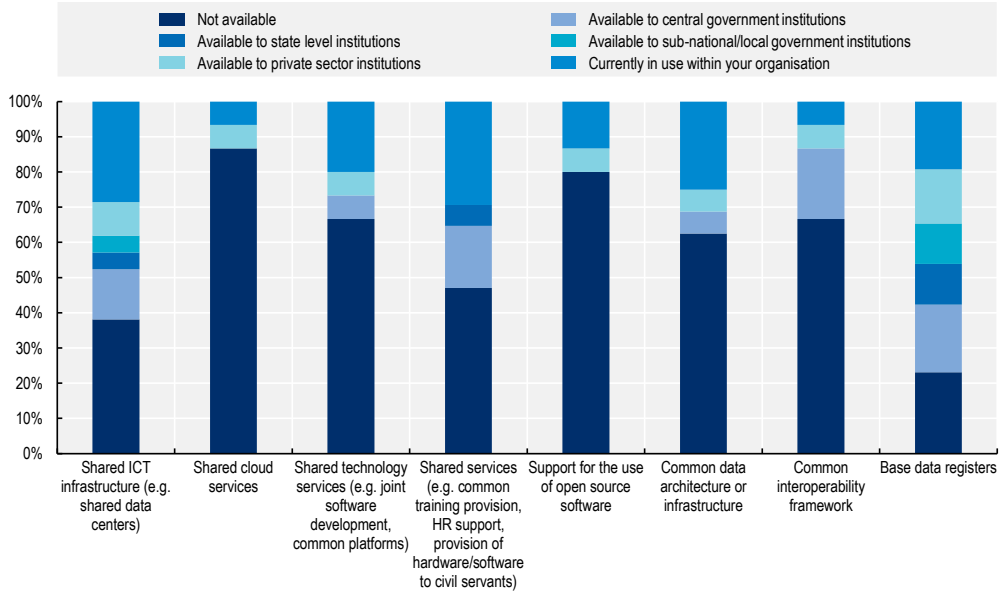
OECD member countries are progressing in this direction by building up a Government as a Platform ecosystem (OECD, 2020[3]). This consists of mutual digital tools, infrastructure, norms, and protocols aimed at equipping ministries and administrative bodies with the necessary resources to enable change. A Government as a Platform perspective can allow public servants and service teams to prioritise user requirements over technology development and maintenance. This also facilitates the incorporation of the private sector and Govtech actors in digital transformation.

In Romania, the role of securing common tools and enablers for government digital transformation is under the remit of the ADR. Currently, the ADR is responsible for the implementation of a number of initiatives that are core to enable a whole-of-government transformation of public services, including government cloud, interoperability framework, the national central service delivery platform and digital identity (Authority for the Digitalisation of Romania, 2023[16]). Similarly, the Special Telecommunications Service is responsible to manage critical digital public infrastructure under strict security control and protocols. This is the case of national data centres and specific and sectoral IT systems (Special Telecommunications Service, 2023[17]). However, deployment and uptake of existing common digital tools and enablers differ significantly in Romania.

As observed in Figure 5.8, public sector institutions acknowledge the existence of core enablers such as shared data centres, notably provided by the STS. The figure also demonstrates the need for Romania

and the ADR to accelerate the development of several key projects to enable the digitalisation of government services in a sustainable and cost-effective way, including public cloud, interoperability, citizens folder/wallet and the promotion of open source. Existing EU programmes and the request to adhere and advance in the implementation of the Digital Decade can serve as policy levers to achieve this goal.

Figure 5.8. Common tools and enablers for digital government in Romania



Note: Graph based on the answer of 16 Romanian public sector institutions to the survey.
Source: OECD Survey of Digital Government in Romania 2022

One of the flagship digital infrastructures to be implemented in Romania is the Government Cloud Initiative (ADR, STS and RIS, 2022[18]; Authority for the Digitalisation of Romania, 2023[19]). The project, to be funded under Romania's Recovery and Resilience Fund, is a collective effort between the ADR, STS and the Romanian Intelligence Service, with the co-ordinating role of the Ministry of Research, Innovation and Digitalisation, to advance in the availability of IaaS, PaaS and SaaS solutions for public sector institutions that do not have access to or resources to maintain their own data centres. Similarly, the role of the Government Cloud project is critical for achieving other policy goals for the digital transformation of Romania, including creating the conditions to enable government interoperability in service delivery.

The fact-finding mission and evidence collection indicates that there are high expectations from less resourced public sector institutions to count with reliable and scalable digital infrastructure such as the government cloud. At the same time, there are concerns within more digitally mature public sector institutions about the quality, reliability and security that the cloud infrastructure will offer compared to their existing infrastructure. Additionally, the initiative has faced criticism from public sector institutions and civil society regarding the extent to which data will be managed and protected within the existing governance framework (OECD, 2023[20]; OECD, 2023[21]). With this regard, Romania could consider establishing a comprehensive and inclusive development framework for the Government Cloud initiative support a collaborative governance approach for the deployment and operation of cloud infrastructure in the country. Looking ahead, it would be important that key players, especially those that manage key base registries and services, endorse cloud plans and are confident of the reliability and quality of future developments. A collaborative governance approach could also support increased accountability in response to the abovementioned privacy and security concerns. In order to further co-ordinate efforts within the public

sector, such governance mechanism could also include the General Secretariat of the Government (GSG) as well as the National Supervisory Authority for Personal Data Processing[3].

Similarly, it would be important that Romania clearly articulates the development of digital infrastructure with core goals, purposes and actions that will lead to better digital services in the country. Other OECD countries have articulated such policy goals into dedicated cloud strategies in order to align public sector institutions and establish a common vision in the context of improved digital processes and services (see Box 5.6), putting services and users first over technology infrastructure. Furthermore, the Government Cloud Initiative co-exists with another key priority for MCID and ADR, the National Interoperability Framework (NIF) (see details in Chapter 4). In this regard, the policy frameworks governing both initiatives should be aligned and fully integrated under the expectative that public sector interoperability will be enabled by an ecosystem that includes cloud services.

Box 5.6. Cloud strategies in OECD countries

United States

In the United States, the 2019 Federal Cloud Computing Strategy (Cloud Smart) was prepared as a comprehensive, long-term approach to encourage cloud adoption within US Federal departments. The strategy builds on the "Report to the President on Federal IT Modernization" issued by the Office of Budget and Management (OMB) in 2017, which committed to updating the original Federal Cloud Computing Strategy (Cloud First). The Cloud Smart strategy provides guidance to help government missions leverage cloud technologies effectively. The strategy is built on three core principles: security, procurement, and workforce, aiming to develop a holistic IT modernisation approach. As part of the governance framework for digital government, the Chief Information Officers Council has outlined actions for the strategy's implementation, focusing on application portfolio rationalisation. This involves evaluating and eliminating unnecessary applications to streamline service delivery and rationalise resources.

Australia

The Secure Cloud Strategy has been developed to help Australian public sector institutions to navigate the challenges of transitioning to cloud technology, aiming to capitalise on its potential benefits for the Australian Public Service. The strategy promotes public sector institutions to adopt a sustainable-oriented approach, minimising repetition, fostering co-operation, and boosting responsiveness and innovation when using cloud services. Under the strategy, public sector institutions are mandated to develop individual cloud strategies building on dedicated governance frameworks for sharing of knowledge and resources to increase collaboration and avoid siloed expertise. Using the Secure Cloud Strategy as a foundation, agencies have to define their unique value propositions, workforce plans, optimal cloud models, and readiness assessments.

Source: https://cloud.cio.gov/strategy/ and https://www.dta.gov.au/sites/default/files/2022-09/DTA%20Secure%20Cloud%20Strategy%20-%20October%202021%20v3.pdf

The implementation of the Government Cloud initiative requires also an ecosystem of supporting tools that effectively equip government institutions to use it. Existing plans include the development of a dedicated marketplace for public sector institutions to access cloud services, and the implementation and operation face will require of collective efforts to secure equal access and use of the infrastructure. Looking ahead, Romania could see the implementation of the Government Cloud and NIF as a policy window to introduce

other reforms to enable the digitalisation of government services. For example, a marketplace will be implemented for public sector institutions to access cloud services. However, Romania could consider leveraging this effort and scale it up for other digital goods and services as well, ensuring contracts that allow flexibility, scalability and protect public service providers from external shocks.

Digital notifications and payments

Two core enablers that contribute to a consistent and coherent experience of users with public services are digital notifications and payments. In line with the development of digital public infrastructure and digital public goods as a subset of non-rivalry and open-source solutions, digital notifications and payments enable users to complete end-to-end and transactional services online (OECD, 2021[22]).

In Romania, the government does not count with a common tool to enable notifications. More digitally mature public sector institutions such as the Ministry of Interior Affairs or the Ministry of Justice count with their own digital tools to communicate with users regarding services, information, and benefits. This also includes the Ministry of Finance and the notification system SPV[4], which enables the Ministry to communicate with users regarding tax declarations and related issues.

However, in line with the findings across this study, there is still a significant gap between digitally mature public sector institutions and those less resources and skilled to drive the digitisation of their services. Acknowledging the existing of notification mechanisms, most public sector institutions do not have such a tool to effectively enable payments for fully transactional services online. Looking ahead and informed by the experience and lessons in the development of core digital government infrastructure such as cloud and interoperability, Romania could consider establishing a common digital tool for notification to enable public sector service teams that do not have a digital notification mechanism to send emails, text messages and other communications.

In this endeavour, Romania could consider leveraging international expertise in the form of digital public goods for user notification. Several OECD countries have experimented with the adoption of digital public goods, in particular for notification. This is the case of GOV.UK Notify, the digital notification system from the United Kingdom (see Box 5.7) which has been leveraged by several countries to rapidly implement notifications with users as part of their digital government strategy, including Canada, Brazil and the United States.

Box 5.7. Digital notifications – The experience of GOV.UK Notify

As part of the UK's Government as a Platform approach, GOV.UK Notify is a platform designed for public sector teams to easily send emails, text messages, and letters without requiring technical expertise. Users can create, send, edit, and format messages, add personalisation, send in bulk, track delivery, and collaborate with their team. It offers free accounts, unlimited email sending, file attachments, email branding, and both sending and receiving text message capabilities, including to international numbers. Additionally, GOV.UK Notify can handle the printing and postage of letters, offering choices in postage, international postings, and branding, along with an option to upload letters directly as PDFs. For automatic message sending, integration with the GOV.UK Notify API is required. The platform prioritises data security and commits to high performance standards, such as delivering 95% of messages within 10 seconds and ensuring letters are printed and posted by next working day.

GDS is currently exploring alternatives to enhance the flexibility of the GOV.UK Notify platform for public sector messaging. The strategy includes allowing public sector institutions to add their individual branding, adding new features, and transitioning to a new hosting provider since GOV.UK Platform as a Service is to be decommissioned. The plan also prioritises user retention by improving features, including better Welsh language support and enhanced email capabilities outside the GOV.UK domain.

Source: Government Digital Service (n.d.[23]), *GOV.UK Notify,* https://www.notifications.service.gov.uk/features (accessed on 10 August 2023), UK Authority (2023[24]), *GDS plans more flexibility for GOV.UK Notify*, https://www.ukauthority.com/articles/gds-plans-more-flexibility-for-govuk-notify/ (accessed on 10 August 2023).

As with the experience of notifications, taking payments in the Romania public sector is not clearly articulated. With the presence of several private sector providers and a positive attitude of Romanian citizens towards digital payment mechanisms[5], government services that require either taking or transferring payments are still limited – as observed in the evidence collection for this project. There is a widespread availability of digital payment and wallet mechanisms, including local providers such as PayU Romania and Romcard. This also includes the digital payment gateway Ghiseul[6] developed by the ADR which enables the payment of taxes and fees with public sector institutions. With a large enrolment and uptake among local governments in the country, Guiseul is not yet the authoritative digital payment mechanism in Romania. In this sense, the country could further stress efforts to secure uptake of Guiseul among central government institutions, in particular by securing the adherence through investment approval and inclusion in a possible service standard.

Digital identity and wallet/folder

Identity verification is foundational for accessing vital public and private services including voting, financial transactions, government assistance, and health care. With the increasing number of digital services, the need for reliable and interoperable digital identification solutions becomes crucial to facilitate more secure and readily available services, as well as a smoother public sector experience. The context for cross-border service delivery and the need of interoperable and mutually recognised solution requires a strategic approach to govern digital identity, as highlighted by the OECD Recommendation on the Governance of Digital Identity (OECD, 2023[25]) (see Box 5.8).

Box 5.8. OECD Recommendation on the Governance of Digital Identity

Recognising the social, economic and public value of digital identity systems to enhance privacy, facilitate inclusion, simplify access to government and private services, as well as transform the way public service providers interact with their users, the OECD issued a recommendation to assist develop and govern human-centric and portable digital identity systems. The OECD Recommendation of the Council on the Governance of Digital Identity promotes members and mind-alike countries to implement digital identity systems adhering to the following principles:

- Developing User-Centred and Inclusive Digital Identity.
  - Design and implement digital identity systems that respond to the needs of users and service providers.
  - Prioritise inclusion and minimise barriers to access to and the use of digital identity.
- Strengthening the Governance of Digital Identity.
  - Take a strategic approach to digital identity and define roles and responsibilities across the digital identity ecosystem.
  - Protect privacy and prioritise security to ensure trust in digital identity systems.
  - Align their legal and regulatory frameworks and provide resources to enable interoperability.
- Enabling Cross-Border Use of Digital Identity.
  - Identify the evolving needs of users and service providers in different cross-border scenarios.
  - Co-operate internationally to establish the basis for trust in other countries' digital identity systems and issued digital identities.

Source: OECD (2023[25]) *Recommendation of the Council on the Governance of Digital Identity*, https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0491.

In Romania, functions around digital identity are divided between identity management and the development of its related digital solution. The Ministry of Internal Affairs[7] manages issuance of identity documents (cards and passports) as well as related base registries that comprise attributes for identity verification – such as the natural person registry. Additionally, company registration and identification are managed by the National Office for Commercial Registration[8]. Finally, the development of the digital identity system in Romania, including the management of the eIDAS node, is under the responsibility of the ADR (Authority for the Digitalisation of Romania, 2023[16]).

Romania's digital identity policy builds on the implementation of EU eIDAS regulation and its ongoing update process[9]. As part of this process, Romania's Ministry of Internal Affairs is planning the introduction of electronic ID cards[10]. At the same time, ADR is implementing the Centralised Software Platform for Digital Identification (PSCID), which aims to allow Romanian citizens to set digital identity credentials to access digital government services in the country and abroad. As highlighted in the Recommendation on the Governance of Digital Identity, establishing sound governance mechanisms is critical for user-centric, trusted and interoperable digital identity. However, evidence from the fact-finding mission showed that digital identity requires further co-ordination and collaborative governance models between the entities responsible for issuance, management and digitalisation of identity, in particular in the context of initiatives under parallel implementation to solve similar needs. This is of particular importance as securing the user-

centricity of digital identity systems is critical for a convenient and seamless experience for users when identifying themselves online (OECD, 2023[25]). Improving the governance for digital identity, acknowledging the roles of each institution in the identity management lifecycle would be of particular relevance since Romania is the most delayed country in the roadmap for implementation of the eIDAS node[11].

The implementation of different solutions for digital identity is a common issue within the EU context as countries advance their efforts to adjust existing digital identity mechanisms (including ID cards with electronic signature) with more user-centric and agile solutions. Romania would benefit from digital co-operation with other EU countries to leverage the extensive knowledge and experience of these countries in aligning existing efforts for a comprehensive and federated digital identity ecosystem e.g. Portugal or Ireland (see Box 5.9 and Box 5.10).

Box 5.9. The experience of Portugal with digital identity

Portugal initiated its digital identity roadmap in 2007 with the 'Citizen Card', which combined five identification numbers into a singular card and integrated digital certificates. This card replaced multiple individual documents, such as the tax ID and health service card. Though effective, the need for a physical card reader posed a challenge, leading to the introduction of the 'Digital Mobile Key' in 2014.

In 2018, SCAP was introduced, enabling users to authenticate and sign digitally based on their professional or business attributes. Another step forward was taken in 2019 with the ID.gov.pt mobile application, a digital wallet allowing users to store and access personal ID documents. This app integrated with the Digital Mobile Key and regularly updated data for security.

Supporting these tools is Autenticacao.gov, a central platform integrating the national electronic authentication and signature solutions. It offers a common API for service providers to access all authentication mechanisms, prioritising user control and data privacy.

Over the years, the Portuguese eID ecosystem has expanded. Despite the mandatory use of the Citizen Card, the Digital Mobile Key's adoption has risen, especially among private entities. The use of these digital identity tools surged during the COVID-19 pandemic. By 2020, almost 13 million authentications were registered through national eID providers.

Source: European Commission (2021[26]), *The Portuguese Digital Identity Ecosystem*, https://joinup.ec.europa.eu/collection/portuguese-egovernment-solutions/news/portugals-pioneering-eid-solutions (accessed on 10 August 2023)

Box 5.10. The experience of Ireland with digital identity

In Ireland, MyGovID is the one-login solution allowing users safe, online access to government services and with stepwise increase in identity proofing requirements. To instantly access simple government services, users do not need to go through an identification proofing process but can sign up for a basic MyGovID account online using their name and email address. To gain access to more value government services that utilise my MyGovID for access and authentication, users need to verify their account and identity by providing their Personal Public Service (PPS) number, Public Services Card, and a phone number verified by the relevant government department. After entering their details, a 6-digit code will be sent to the verified phone number for the users to fully verify and activate the MyGovID account. In terms of future digital services, MyGovID is the sole means of authenticating identity for the purpose of accessing online government services, provided that an alternative service channel is available.

Source: Government of Ireland (n.d.[27]), *MyGovID*, https://www.mygovid.ie/ (accessed on 10 August 2023)

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PRINT ISBN 978-92-64-45636-5
PDF ISBN 978-92-64-57884-5