OECD Digital Government Studies

Digital Government Review of Slovenia

LEADING THE DIGITAL TRANSFORMATION OF THE PUBLIC SECTOR

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Foreword

The fast-evolving digitalisation of our economies powered by data and digital tools has impacted people's lives from individual to societal level, which challenges governments when designing and delivering services. The OECD Digital Government Reviews aim to support government's digital transformation by assessing policies and practices to benefit from these opportunities and address the related challenges.

Slovenia has made digital government a key priority in recent years through its *Public Administration 2020* and *Digital Slovenia 2020* strategies. These ambitious, complementary, and well-financed strategies enabled great progress towards a digitally-mature government. Given that not only both strategies are coming to an end, but also its EU Council presidency in the second half of 2021, Slovenia has today a golden opportunity to revisit its digital transformation agenda and prepare for the forthcoming policy cycle, together with its flourishing digital ecosystem of stakeholders. To ensure digital transformation of the whole public sector, this Digital Government Review of Slovenia proposes to focus on four areas:

- setting up the right governance to lead the digital shift,
- building digital talent for a transformative public sector culture,
- focusing on high quality service design and delivery,
- threading the path towards a data-driven public sector.

Conducted at the request of the Slovenian government, with the strong engagement of the Ministry of Public Administration, and peers from Colombia and the United Kingdom, this Digital Government Review uses the 2014 *OECD Recommendation on Digital Government Strategies* as its foundation and the *OECD Digital Government Policy Framework* to frame the analysis. With its six dimensions – Digital by Design, Data Driven, Government as a Platform, Open by Default, User-Driven and Proactiveness – the review evaluates the efforts that Slovenia undertook to advance its digital government maturity by progressing from e-government to enact a full shift towards the digital transformation of the public sector.

Through its policy recommendations, the review will assist the Government of Slovenia to fully benefit from digital technologies and data to foster a people, and data-driven digital transformation of its public sector, to be well-equipped to respond to the needs and expectations of people and businesses in the digital age. The OECD stands ready to continue supporting digital government policies in Slovenia with the implementation of the recommendations elaborated jointly through this *Digital Government Review.*

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Chapters 1 and 2 were written by João Ricardo Vasconcelos, Digital Government Policy Analyst in the Open and Innovative Government Division. Chapter 3 was written by Lucia Chauvet, Junior Digital Government Policy Analyst in the Open and Innovative Government Division. Chapters 4 and 5 were written by Benjamin Welby, Digital Government Policy Analyst in the Open and Innovative Government Division. All chapters benefitted from the strategic orientation and revisions of Barbara-Chiara Ubaldi. João Ricardo Vasconcelos served as the lead co-ordinator of the review.

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Executive summary

Slovenia has taken advantage of its size and centralised administration to “move fast and be agile” on digital government policy design and implementation. As a member of the European Union (EU) since 2004, Slovenia has also benefitted from the influence of the digital government policy of the EU and has demonstrated aspirations of achieving objectives set out in the Digital Agenda for Europe of a single digital market.

Slovenia has increasingly made digital government a key policy priority and has invested in several public policies that stress the importance of technology and digital literacy for a digitally enabled state. Important concepts for an effective digital transformation, such as ‘digital by default’ and ‘once only’ were progressively embraced, and, similarly, Slovenia adopted key enablers to improve access and interoperability of government services, such as digital identity and citizen data rights. The digital government policies also fully recognised the need to invest in the underlying digital infrastructure of the country, digital skills and the digital capacity of businesses. Although these comprehensive policies revealed awareness of the country’s needs, more is needed to govern the digital transformation across the whole public sector.

Given that digital transformation relies on establishing a clear vision and solid governance, Slovenia could build on their social and economic digital eagerness and create a sense of urgency to leverage the current digital disruption and enhance the country’s economic development and social wellbeing. Strategic communication and clarification of the role of digitalisation would also be crucial for improving citizen trust, social wellbeing and inclusive economic growth, as well as creating opportunities to involve the ecosystem of stakeholders in the process of policy design and delivery.

Another ingredient for a successful government transformation is to ensure the right talents and skills to lead it. Recognising the importance of establishing a more receptive workplace to digital settings and lifelong learning for talents to thrive by putting people at the centre would foster digital experimentation, application of new digital skills and change of mindset. Defining essential digital skills and training would help the digital workforce focus on the evolving needs of job profiles and descriptions. This talent focus could also promote the Slovenian public sector as an agile and attractive employer, particularly for the youth.

A focus on the user experience of accessing services is another key component to designing and delivering quality services. Services such as the government platform GOV.SI reflect an initial statement of intent by the Slovenian government to simplify the user experience of accessing services. However, there remains more to do to align the citizen user experience and provide joined-up services across government.

Finally, there would be no digital transformation without a consistent data policy. Thanks to its strong data governance, acknowledging the power of data would help Slovenia further unlock public value. This would not only develop and stimulate data-driven approaches to policymaking and service delivery whether for upfront forecasting using big data or for ongoing analysis of service performance, but also strengthen public trust.

Key policy recommendations:

Contextual factors and institutional models

- Leverage the contextual factors that underpin Slovenia's overall political and institutional culture to further support the country's digital maturity.
- Strengthen the mandate of the Directorate of Informatics of the Ministry of Public Administration as the national public sector organisation responsible for leading and coordinating the development of digital government.
- Prioritise coordination mechanisms to secure coherent and sustainable policy implementation, and shared ownership and responsibility for the development of the Slovenian digital government policy.
- Ensure a strong consensus exists between the Ministry of Public Administration and the newly formed Government Office for Digital Transformation to align and coordinate their respective strategic activities.

Policy levers to lead the digital transformation

- Reinforce the level of priority attributed to the national digital government policy through a new strategy that can properly sustain the country's efforts and ambitions towards a digitally enabled state.
- Strengthen the use of policy levers such as business cases, project management, procurement of digital projects and budget thresholds for reinforced leadership and coordination of digital government investments across the Slovenian public sector by the Directorate of Informatics of the Ministry of Public Administration.
- Continue improving the legal and regulatory framework in order to tackle the fast pace of digital change and disruption, reinforcing namely the digital rights angle.

Digital talent for a transformative public sector culture

- Create a digital enabling environment that is supported by the leadership including having a flatter organisation to enhance flexibility, communication and collaboration, promoting a learning culture and putting flexible working policies in place.
- Expand the digital government skills to make sure that citizens have enough digital literacy to use digital public services and that public servants and leaders have the necessary skills to lead a successful digital transformation.
- Continue improving the recruitment system to attract the right digital talents and offer talent-centric rewards, professional growth and opportunities, while building a work environment to accommodate these changes.

Service design and delivery

- Ensure that the leadership for the digital government agenda in Slovenia is inspirational and committed to a philosophy of service design and delivery that communicates a clear direction and common vision for how transformed services can improve lives.
- Establish a design culture that places users at its heart and is driven by their needs at the centre, and within the institutions of the Slovenian public sector. Such an approach will help to develop a joined-up, channel-agnostic approach to services that respond to the context of citizens and maximise the value of Slovenia's existing technical strengths.

- Consider the Government as a Platform ecosystem of enabling resources and tools as a collective whole, and not as discrete and individual elements in order to scale whole of government transformation.

Data-Driven Public Sector

- Invest in leadership to ensure the necessary skills, networks and regulatory enablers, including: Identify strong leadership with the authority, mandate and resources to provide strategic oversight and govern the delivery of the data agenda in Slovenia by designating a Chief Data Office(r), and identify data stewards across the public sector; and envelop a new strategy for data.
- Building on strong technical and practical foundations for data, take steps to encourage a culture of data-driven transformation through making it a priority in discussions around skills, funding mechanisms, delivery methodologies, communities of practice and incentives.
- Strengthen existing efforts to recognise the role of data as a critical element for the trust citizens and business place in government by exploring how to give citizens and businesses greater visibility and control over their data usage and its role in automated decision making.

Assessments and Recommendations

Contextual factors and institutional models

Overall political and administrative culture

Slovenia is a parliamentary republic benefiting from a stable geopolitical situation and good cross-border relations with its neighbouring countries. Yet, policy continuity across political cycles is a critical concern in the public sector given the frequent change in government experience in recent years. In the OECD fact-finding mission to Ljubljana in October 2019, several public sector organisations highlighted that new governments have discontinued ongoing projects and initiatives, with negative consequences for the sustainability of mid- and long-term policy actions.

The territory is administratively divided into more than 200 municipalities. Although the sub-national administration benefits from considerable autonomy, the central government based in the capital, Ljubljana, is responsible for a wide policy portfolio, qualifying the country as administratively centralised when compared with the overall experience of OECD member countries.

The fact that Slovenia has been a member of the European Union (EU) since 2004 represents a key contextual factor deeply influencing its digital government policy. In pursuit of establishing a European digital single market, the EU has concentrated efforts on developing e-government and digital government policies across its member states. European co-operation in this area has been fruitful not only in the exchange of knowledge but through the joint development of standards and investment in technical building blocks for digital government (e.g. digital identity, interoperability) that can allow public sectors to provide citizens and businesses with mature digital services.

Slovenia is deeply involved in EU co-operation in the areas of digital government and information society, benefiting from this strong external stimulus created across these policy work streams. The country's active participation in Union-wide strategies, initiatives and projects positively shapes the national digital government policy and is consensually considered an asset by the stakeholders interviewed during the OECD fact-finding mission in October 2019. Additionally, the fact that Slovenia is a relatively administratively centralised country, and considered small in population when compared with European and OECD peers, can prove to be a policy asset. Since Slovenia has the capacity to "move fast and be agile" on digital government policy design and implementation, the country's government and its public sector should progressively consider embracing and implementing more proactive leadership around these policies that uses the country's size as a comparative advantage.

Socio-economic factors and digitalisation context

When observed from a perspective of social-economic indicators, such as the level of household income and wealth, Slovenia performs below the OECD average (OECD, 2017[1]; OECD, 2020[2]). Nevertheless, like the vast majority of OECD member countries and EU member states, Slovenia has an unquestionable developed country status, ranking 22nd on the United Nations Human Development Index (UNDP, 2020[3]). This social-economic wealth of the country is reflected in the level of digitalisation. Although Slovenia is below the OECD average in several digitalisation indicators (e.g. fixed and mobile broadband penetration, senior and low-income Internet users, information and communications technology [ICT] investment intensity, ICT patents), the country presents a typical developed economy digitalisation profile (OECD, 2020[4]).

The same assessment can be applied when considering more specifically the level of digital interactions of the Slovenian population with public services. In 2019, 53% of Slovenians aged 16-74 used the Internet to interact with public authorities, from simply obtaining information from government websites to completing and sending interactive forms. But looking specifically at the percentage of individuals using the Internet to send completed forms via public authorities' websites, the Slovenian percentage drops to 21%, compared to the 38% EU average (OECD, 2020[4]).

The socio-economic and digitalisation context of Slovenia provides substantial room for improvement of the country's performance when compared with OECD and EU peers. Building on the consensus for change that exists among the ecosystem of stakeholders, a political momentum can be created for a wide and ambitious digital development agenda for the country. In order to enhance the benefits of the digital transformation of the public sector, the Slovenian government should build on this social and economic digital eagerness and create a sense of urgency, leveraging the current digital disruptiveness to strengthen the country's economic development and social well-being.

Macro-structure and leading public sector organisation

In Slovenia, the Ministry of Public Administration (MPA) is responsible for the national digital government policy and holds a co-ordinating leadership function between the different levels and sectors of government. The Ministry develops this co-ordination in line with the State Governmental Council of Informatics Development in Public Administration (see section Co-ordination and compliance). Within the Ministry, the Directorate of Informatics, led by a director general, is responsible for the wide executive co-ordination and implementation of public sector digital transformation policy. The Directorate also takes lead responsibility for important digital government initiatives such as digital identity, interoperability and digital service delivery (see Chapters 4 and 5). There is wide recognition of MPA's mandate across the digital government ecosystem of stakeholders observed during the OECD fact-finding mission in October 2019 and evidenced by the OECD Digital Government Survey of Slovenia (OECD, 2020[5]).

Nevertheless, a lack of policy continuity across political cycles was identified as a critical concern by the public sector institutions interviewed during the OECD fact-finding mission. Several stakeholders highlighted that new governments tend to discontinue ongoing projects and initiatives, with clear negative consequences for the sustainability of policy action and results.

Developments in July 2021 saw the creation of the Government Office for Digital Transformation and the appointment of a new Minister of Digital Transformation. The emphasis and priority placed on this appointment indicates a renewed commitment at the political centre for the digital agenda. As the roles and responsibilities of this organisation and the relationship with the MPA become clear it will be important to ensure that the digital economy and digital government agendas are working in concert with one another.

Co-ordination and compliance

In Slovenia, the Governmental Council of Informatics Development in Public Administration, led by the MPA, is responsible for the strategic leadership of digital government policy (OECD, 2019[6]). The formal co-ordination and compliance structure for the digital government policy of Slovenia is effective and allows for co-ordination at different levels with the distribution of responsibilities clear and generally well defined. Nevertheless, despite offering effective horizontal co-operation, recent years have identified critical weaknesses. The absence of Strategic Council meetings from April 2018 until the writing of this paper compromises the necessary co-ordination that can secure the coherence and sustainability of the digital government policy. In fact, the majority of Slovenian public sector organisations that answered the OECD Digital Government Survey confirmed that there is no regular co-ordination with MPA on digital government policies and initiatives. During the drafting of the present report, the OECD peer review team was informed that the Government of Slovenia plans to resume the Strategic Council meetings in the upcoming months.

The Government of Slovenia has critical mechanisms of co-ordination that can improve policy implementation and compliance in the country. For example, in addition to the Council mentioned above, a Strategic Council for Digitalisation in the Office of the Prime Minister was launched to mobilise public, private and civil society stakeholders. This council has the purpose of discussing and preparing proposals that can boost the country's performance in the current digital transformation context.

Proposals for action

In light of the key assessments exposed above, which draw on the main findings and analysis included in Chapter 1 of this review, the Slovenian government could consider implementing the following policy recommendations:

1. Leverage the contextual factors that underpin Slovenia's overall political and institutional culture to further support the country's digital maturity. The following priorities should be considered:
   a. Strengthen the foundations, and secure the continuity, of digital government policies and their independence from political lifecycles and changes in the national government.
   b. Capitalize on the small size and relatively centralised administrative model of the country as competitive assets that can allow improved acceleration, innovation and agility of policy definition and implementation.
   c. Continue the strong alignment with EU policies on digital government, guaranteeing that European funding for digitalisation initiatives and projects can be channelled to strategic priorities for improved digital maturity in line with the findings of this review.
2. Reinforce the efforts of leveraging the generally positive socio-economic factors and digitalisation context, while tackling the critical challenges observed. The following action lines should be prioritised:
   a. Ensure the alignment of public sector digital transformation efforts with the digital agenda in other sectors and ministries to harness the momentum and investment for digital transformation more broadly across Slovenian society as a lever for supporting the country's social and economic development.
   b. Strengthen the investment in initiatives and projects that can sustain the development of a data-driven public sector and a public sector innovation culture in the civil service as a whole.
   c. Working with partner ministries, mobilise champions from across the public, business and civic sectors to achieve horizontal coordination, a shared vision and cross-sectoral exchange of knowledge.
3. Strengthen the mandate of the Directorate of Informatics of the MPA as the national public sector organisation responsible for leading and co-ordinating the development of digital government. The following should be considered:
   a. Reinforce the political support and decision-making responsibilities of the Directorate of Informatics, with the corresponding attribution of additional financial and human resources.
   b. Further develop and attribute to the Directorate of Informatics policy levers (see recommendation 6) that can sustain a stronger leadership and co-ordination role across the different sectors and levels of government.
   c. Empower the position of Director General of Informatics with additional institutional competencies, political support and high-level visibility that can enable its holder to be further seen as a champion and leader of the digital transformation of the public sector in Slovenia.
4. Prioritise co-ordination mechanisms to secure coherent and sustainable policy implementation, as well as shared ownership and responsibility for the development of the Slovenian digital government policy. The following should be considered:
   a. Work with the newly created Government Office for Digital Transformation to build momentum for the digital agenda across the Slovenian public sector.
   b. Reactivate as soon as possible the meetings of the Strategic Council, enabling improved dialogue, co-ordination and joint decision-making across the different sectors and levels of government.
   c. Explore rearranging the Council with a twofold structure that could maintain the benefits of separating the high-level steering of the digital government policy and the management of its operational implementation, while enabling improved clarity and simplicity of its functioning.
   d. Explore further involving civil society stakeholders in the functioning of the Council through regular open meetings, frequent consultation mechanisms and collaborative policy design.

Policy levers to lead the digital transformation

Strategy

In Slovenia, the digital government policy is covered in the *Public Administration 2020, Public Administration Development Strategy 2015-2020* and in the *Digital Slovenia 2020 – Development Strategy for the Information Society until 2020* (Republic of Slovenia, 2015[7]; Republic of Slovenia, 2016[8]). The two strategies are complementary, defining action-oriented priorities and securing financial resources for their implementation. The ecosystem of stakeholders interviewed during the OECD fact-finding mission to Slovenia in October 2019 and that responded to the OECD Digital Government Survey showed great awareness of both these strategies. They also confirmed that the strategies were developed through collaboration with other public sector institutions. Nevertheless, when questioned about the relevance of

the strategies for their public sector organisation (e.g. mandates, alignment with institution's goals), the vast majority of the respondents considered it "moderate" or "weak" (OECD, 2020[5]).

As both strategies are now reaching the end of their terms and Slovenia is producing a new digital strategy, an opportunity exists to renew the involvement of the stakeholder ecosystem and make use of strategic foresight work already undertaken to support future strategy and anticipatory innovation work within the Ministry of Public Administration. The new Strategic Council for Digitalisation, established during the drafting of this report, brings together public, private and civil society representatives and is an important policy step towards broad multi-stakeholder involvement. Furthermore, the newly created Government Office for Digital Transformation offers an important focal point for the conversation about digital transformation across the Slovenian public sector in ways that will inform both the public and private sectors. As such, the current context also seems to present an opportunity to better connect policy with concrete priorities, needs and worries of Slovenian public sector institutions, and uncertain potential future disruptions. An open and collaborative approach to the design and implementation of the new strategy and its proper link with other policy work streams, such as social well-being, sustainable economic development or green transition, is essential if Slovenia aims to fully seize the digital transformation of the public sector.

Management tools and financial mechanisms

In Slovenia, policy levers such as business cases, project management models, procurement of digital technologies, and their positive impact for a coherent and sustainable digital government in the country, are commonly recognised and supported by the ecosystem of digital government stakeholders. The *Project Management Methodology in the Public Administration – Information Technology Projects* (Republic of Slovenia, 2016[9]) and the information technology investments approval process overseen by the Council of Informatics Development in Public Administration demonstrate efforts for coherently managing digital activity. Nevertheless, the existence and current applicability of these tools is not clear to the majority of public sector organisations that answered the Digital Government Survey of Slovenia, namely when referring to standardised business cases and project management models (OECD, 2020[5]).

The most relevant example of budgetary levers in Slovenia refers to the existing threshold of EUR 20 000 (without tax) for digital government investments. The Strategic Board of the Council of Informatics Development in Public Administration is responsible for evaluating ICT expenses above that amount, thus promoting integrated and cohesive policy efforts for the digital transformation of the public sector. Regarding the procurement of digital technologies, the centralised formal process for the approval of investments by the Council supports efficiency and coherence across the administration. But considering the identified lack of Council meetings since April 2018 (see section Co-ordination and compliance), guaranteeing strategic and coherent procurement of digital technologies in the Slovenian public sector is a recognised challenge within the MPA and the broader ecosystem of digital government stakeholders.

Legal and regulatory frameworks

Slovenia has made broad efforts to progressively adapt its legal and regulatory framework to support digital transformation. Benefiting from EU regulations, important steps have been taken, for instance, in the areas of digital identity, access to public sector information, privacy and data protection, digital security, and sharing of government data within and across the public sector. Nevertheless, weaknesses in legal and regulatory approaches were highlighted as obstacles to government digital maturity. Public stakeholders that answered the OECD Digital Government Survey of Slovenia identified the need to simplify the legislation, update areas such as digital identity or trust services and improve communication to reinforce its cohesive application (OECD, 2019[6]). Given the increased role of emerging technologies such as artificial intelligence in the Slovenian public sector and the ambition for data-driven approaches, a third generation of digital rights, considering consent, the ethical use of data and algorithm transparency, are

not yet embedded into Slovenia's regulatory and legal frameworks (OECD, 2019[10]; Ubaldi et al., 2019[11]; OECD, 2019[12]).

Proposals for action

In light of the key assessments exposed above, which draw on the main findings and analysis included in Chapter 2 of this review, the Slovenian government should consider implementing the following policy recommendations (the numbering continues from the list of proposals in the previous section):

5. Reinforce the level of priority attributed to the national digital government policy through a new dedicated strategy that can properly susta ambitions for a digitally-enabled state. The following measures could be considered:
    a. Prioritise involving the ecosystem of public, private and civil society stakeholders in the design and implementation of the new strategy, namely through the recently launched Strategic Council for Digitalisation and the Governmental Council of Informatics Development in Public Administration.
    b. Reinforce the alignment of the new strategy with the concrete priorities, needs and worries of Slovenian public sector institutions, increasing awareness of the strategy and the sense of ownership across the different sectors and levels of government.
    c. Explore the benefit of having a specific action plan focused on digital government work streams in order to increase the relevance of the digital transformation of the public sector in government policy actions.
    d. Secure the proper connection of the new strategy with other policy streams such as public sector modernisation, social well-being, economic sustainable development and green transition, avoiding siloed policy action and strengthening the contribution of the digitalisation of the public sector towards broader national development goals.
6. Strengthen the use of policy levers such as business cases, project management, procurement of digital projects and budget thresholds for reinforced leadership and co-ordination of digital government investments across the Slovenian public sector by the Directorate of Informatics of the Ministry of Public Administration. The following should be prioritised for this purpose:
    a. Enhance the momentum of the new digital agenda and the reactivation of the Governmental Council of Informatics Development in Public Administration to reinforce its strategic governance role of the different policy levers.
    b. Consider updating and redesigning the policy levers, involving the ecosystem of public, private and civil society stakeholders to better adapt them to the priorities of the new digital agenda.
    c. Attribute co-funding responsibilities to the Directorate of Informatics of the Ministry of Public Administration, reinforcing its capacities of leadership, co-ordination, and oversight across different sectors and levels of government.
    d. Continue securing the important link between the policy levers mentioned above and the promotion of fundamental digital government enablers such as digital identity or interoperability standards.
7. Continue improving the legal and regulatory framework in order to tackle the fast pace of digital change and disruption, reinforcing namely the digital rights angle. The following actions could be considered:
    a. Involve public, private and civil society stakeholders in updating the legislative and regulatory framework in order to promote improved ownership by the ecosystem to which it will be applied.
    b. Further invest in communicating the legal and regulatory framework to the ecosystem of digital government stakeholders toincrease their awareness of it.
    c. Develop an agile and experimentation-driven culture using the momentum of the new digital strategy to counterbalance the existing legalistic approaches.
    d. Invest in a digital rights angle able to support a people-driven transformation that can sustain and reinforce the citizens' trust in the public sector.

Digital talent for a transformative public sector culture

Digital enabling environment

Digital transformation and digital skills were given high priority by Slovenian leaders in the digital policy agenda for 2020 through great initiatives such as unifying services on a single platform and offering digital skills training. However, despite a hierarchical organisational structure, strategy and priorities have not always been effectively communicated throughout public institutions while the rigidity of the structure has seen decisions vied as representing a top-down approach that prevents collaboration and efficient communication between institutions. Indeed, despite the central priority, a majority of surveyed organisations indicated a weak to moderate awareness of digital skills being a priority. Although the MPA has established the Administration Academy to offer digital skills training, the level of enrolment remains

low. In addition, when questioned about the learning culture in institutions, half of the stakeholders reported that their organisations do not nurture an experimental culture.

Before the COVID-19 pandemic, Slovenia did not have teleworking practices. The pandemic has forced the public sector to convert itself into being fully digital overnight, which was a challenge for most institutions. Creating a flexible and agile work environment is fundamental to a digital government that can address constantly changing needs.

Digital government skills

In Slovenia, the MPA through the Administration Academy took the initiative of addressing the digital skills and competencies gap by providing training to public servants. By collaborating with university experts to develop training programmes with different modules targeted at different groups of public servants for the development of digital skills, the Academy aspires to build a digital workforce to lead its digital transformation and provide user-driven services. To achieve this, it needs a data-driven public administration that understands and reflects on the value of data throughout a citizen's service journey. Responses from the Digital Government Survey of Slovenia suggested that not much has been done to increase digital literacy within society. In addition, it is not clear whether the Administration Academy offers initial training to new employees or has courses covering the areas emphasised by the OECD's Five Skills for Digital Government (OECD, 2021[13]).

Although many institutions in Slovenia have recognised the benefits of working with multidisciplinary teams, it has been reported that some institutions found formalising and matching digital government professional skills with project needs while balancing digital government socio-emotional skills to be challenging. In addition to this, public stakeholders who participated in the capacity building workshop on digital talent and skills identified low motivation of leaders to take part in digital skills training, which affects the perception of public servants on the abilities leaders may have to successfully head a digital transformation.

Sustainability of a digital workforce

The Government of Slovenia's public sector talent management system is not only limited in terms of funding but also limited in the number of staff they can hire every year, which is constrained by the number of vacancies created by retiring senior staff. The ecosystem of stakeholders also expressed their fear of losing digital talents to the private sector, as companies can offer both higher financial rewards for the same roles and skills as well as more attractive career paths with more benefits. Attraction and retention of digital talents is thus a challenge for the public sector of Slovenia.

In terms of development and allocation of skills, the Administration Academy has successfully introduced formal training programmes at the centre while other institutions have established informal learning facilities to help digital talents apply and exchange skills. However, certain courses do not seem to be always available, and the learning culture has not yet matured in the majority of public entities. Besides this, the public sector talent management system of the Government of Slovenia does not seem to offer sufficient mobility between sectors to enhance learning, given the rigidity of the current organisational structure. This may also explain the fear in public sector organisations of losing talents to not only more attractive career paths and benefits but also the greater promise of job flexibility and learning opportunities in the private sector.

To build and sustain a digital workforce, the country needs to attract the best digital talents, and this loops back into the efforts in building a work environment designed to support the digital workforce and enable digital transformation.

Proposals for action

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

8. Create an enabling environment for digital transformation that is supported by the leadership and reflects flatter organisation structures to enhance flexibility, communication and collaboration, while promoting a learning culture and putting flexible working policies in place. The following measures could be considered:
    a. Ensure that priorities and advantages of digital transformation are well-communicated across organisations.
    b. Prioritise flat organisational structures to offer 1) a more agile environment where digital talents feel empowered in their work and 2) higher flexibility to improve the decision-making process and to meet the changing needs and expectations of citizens and businesses.
    c. Continue funding digital skills training to reinforce a learning culture and to foster digital experimentation, the application of new digital skills and the creation of a solid life-long learning mindset.
    d. Consider investing in tools and formalising ways of working that are more flexible in terms of hours, places and methodologies in order both to encourage staff to establish new behaviours and to increase people's feeling of agency and empowerment.
9. Equip citizens with the digital literacy to thrive in the 21st century and ensure public servants and leaders have the necessary grounding in the OECD's Five Skills for Digital Government to effect a successful digital transformation. The following should be prioritised for this purpose:
    a. Equip society with 21st century skills to encourage the use of public services, while making them accessible for all.
    b. Invest in training staff in digital government user skills across all levels of the institutions, focusing on public sector needs.
    c. Consider balancing talents with different digital government socio-emotional skills when forming multidisciplinary teams.
    d. Encourage the continuous development of digital government professional skills to keep promoting a learning culture and offer professional growth opportunities.
    e. Invest in digital government leadership skills to promote the mindset and behaviours that leaders should have to create a digitally mature workplace.
10. Continue improving the recruitment system to attract the right digital talents and offer talent-centric rewards, professional growth and opportunities, while building a work environment to accommodate these changes. The following actions could be considered:
    a. Secure a recruitment team to champion the benefits of working in the public sector, share accurate job profiles and descriptions, and promote the public sector as a merit-based employer.
    b. Enhance the meaningful work opportunities that the public sector presents, give more flexibility in choosing areas of work and introduce professional and personal growth packages to keep motivation of digital talents high.
    c. Encourage, incentivise and empower digital talents to form communities of practices to foster a continuous learning culture, while continuing to invest in formal training.
    d. Consider funding teams instead of projects to offer more opportunities for job mobility and encourage teams to move to not only broaden perspectives, gain skills and experiences but also work on projects that interest them.
    e. Ensure the parallel evolution of the work environment to enable digital talents to unleash and develop their skills to serve digital transformation.
    f. Consider the recommendations and anticipatory innovation prototypes developed in collaboration with the OECD on public sector talent management

Public service design and delivery in the digital age

The design and delivery of public services in the digital age should be approached with the ambition to embrace a digital-by-design culture that releases the potential of digital technologies and data to transform government and the lives of citizens. Rather than a technical exercise of making paper processes available online, or dealing with individual transactions, digital government is about re-engineering and re-imagining the possibilities for meeting citizen needs across all the elements that are involved. This means developing a service design and delivery culture built on multi-disciplinary teams enabled with an ecosystem of resources and tools that help them to deliver at scale, and with pace, while retaining quality and trust.

The OECD's analysis of service design and delivery of services in Slovenia is structured around three areas that inform and shape their quality: context, philosophy, and enabling resources and tools. In all three cases, there is much to commend about the approach in Slovenia and clear indications of progress and evidence of the suitable foundations that can support an ambitious and far-sighted focus on better

meeting the needs of users. However, there are also areas for improvement, with some critical elements where renewed energy could pay significant dividends.

The context for service design and delivery in Slovenia

Slovenia's performance in the Digital Government Index shows that there are solid foundations for the service design and delivery agenda with important and valuable achievements reflecting a long-term commitment. However, the country has suffered from uncertainty around leadership at both national and organisational levels, as highlighted earlier. The next iteration of the country's digital strategies (for both the public sector, and society more broadly) are critical opportunities to reinvigorate the overall leadership, direction and ambition to realise the benefits that digital can offer to Slovenia.

In this respect, it is encouraging that the prime minister has recently established a new council for digitalisation to influence strategy and help co-ordination across the Slovenian public sector. The council can act as a new reference to the work of digital government, and support the existing governance structures in the development and execution of the new digital government strategy. This new strategy is an opportunity to build on the positive achievements of the strategy from 2015-2020 and address some of the lessons that have been learnt over this last period, especially for the service design and delivery agenda. One of the most important commitments that needs to support this new document is for the funding, authority and personnel at the centre to give the service design and delivery agenda the long-term stability, mandate and resources to succeed.

Slovenia is not a large country and as a result, the centre of government can wield significant influence. This leadership will be amplified if it can find ways to tap into the strengths of leaders within government organisations and across the public sector rather than attempting to enforce particular ideas top-down via legislation. Although legislation has enjoyed some success in normalising certain practices, particularly around the role of Open Government Data and access to information, organisational level leadership is a critical resource for the success of the digital government agenda. The Slovenian public sector should ramp up its initial efforts to invest in the specific leadership skills and capabilities required for digital government transformation to help embed this change of culture throughout the public sector. Furthermore, it is welcome to start seeing municipal government invited in to start using some of the resources from the centre but this should be encouraged and reflected in an ambition to equip and collaborate across all those, whether in the public sector or not, involved in designing and delivering services to support the needs of the public.

The previous strategy secured an important shift in the way that the Slovenian government communicates with the public and signposts them to the services that can meet their needs through GOV.SI. By replacing different corporate identities and websites this website has made a dramatic difference to the quality of the experience for citizens wanting to engage with the government. The channel strategy is clearly defined in terms of having GOV.SI at the centre for corporate information and then complemented by eUprava for citizens, SPOT for businesses and OPSI for Open Government Data. These four sites, and their associated teams, are the future direction for the Slovenian government but there is a legacy challenge reflected in the continued proliferation of other websites and routes to accessing services (such as local administrative centres). It is imperative that Slovenia commits to understanding an omnichannel approach that can make sense of all channels that citizens must negotiate, including face-to-face and telephone-based routes to support. Fully addressing the legacy of institutional or sectoral channels will need Slovenia to continue investing in both technical and strategic consolidation.

One of the biggest contextual challenges facing the Slovenian government is its talent and skills for digital government. This challenge is discussed in its own dedicated chapter but there is a critical need for Slovenia to revisit its relationship with suppliers as well as build internal skills to mitigate some of the risks of outsourcing and the lack of internal capability. These issues have shaped the internal mentality and

approach to responding to the needs of users and are a significant barrier to wholesale transformation of government.

Overall, the contextual piece for service design and delivery in Slovenia needs to reflect and acknowledge that the perceived benefits of transforming public service design and delivery do not automatically apply to everyone. A collective focus on the needs for connectivity, digital literacy, and accessibility can help ensure "digital divides" are not exacerbated and that these efforts encourage the digital transformation of the country as a whole. Further investment is being sought to provide high-speed Internet infrastructure throughout the country and supporting citizens with the necessary training. This will necessitate continuing to work with the private sector, building relationships more directly with the public, involving academia and civil society such as through the excellent partnership with Simbioza, and investing in the collaboration between the centre of government, its institutions and the wider public sector.

The philosophy of service design and delivery in Slovenia

Service design and delivery is the vehicle by which digital government maturity leads to transformation. The services provided for citizens or businesses can either simplify their lives and contribute to successful outcomes or lead to unnecessary delays and frustration. No matter how effective the internal governance or technical competence, if services are not easily understood, seamlessly proactive and trustworthy then it is all for nothing. There is no technological intervention that achieves this change. The root of effectively taking digital technology and data and putting it to the service of user needs is in changing the philosophy of how governments approach the design and delivery of services.

Effecting a change in mindset and embedding a different culture starts with leadership. It is therefore crucial that elected representatives, their appointees and senior government officials share a vision for transforming services to become proactive and user-driven while maximising the trustworthy use of data and modern technology. As has been commented, Slovenia has not lacked in ambition but has suffered from a degree of inconsistency in recent years. It could be valuable for non-government actors involved with the Digital Coalition and other advisory groups to embrace a service design and delivery philosophy in order to embed this narrative more widely in Slovenian political discourse.

Away from the centre, it is encouraging to see that several organisations in Slovenia are making great progress in this respect and have developed their own local strategic plans for the design and delivery of services. Thus, while central leadership can be incredibly influential, it should not be forgotten that local leadership is equally important when it comes to taking a strategy off the paper and putting it into practice. This further underlines the need and priority for addressing some of the challenges previously discussed in terms of talent and skills. Furthermore, it would be helpful to establish a cross-sectoral digital government forum designed to bring together the key actors for digital services and digital government to encourage, inspire and unite those with the responsibility for services across the Slovenian public sector around a common vision and ambition.

Underpinning a philosophy of service design and delivery is user research. The review observed inconsistency with regards to how far this discipline and practice was prioritised in the design of services. The focus on providing a gateway to services through eUprava or SPOT is to be welcomed as a route to seeing the whole of a problem solved, regardless of which organisations might be involved in its administration; but there are limitations in the organisational capacity for user research and in the inter-organisational co-operation to solve "whole problems" that cross logistical and administrative boundaries. Nevertheless, Slovenia can point to the ongoing success of the Stop Bureaucracy initiative to demonstrate that it is possible to address what may seem to be intractable problems.

Many of the needs that users have are not going to be solved by taking a digital-by-default approach and simply moving a particular process online to the neglect of the offline and in-person steps inevitably involved in providing support for users. Slovenia needs an omnichannel strategy that challenges the

proliferation of multiple web, and physical, locations. GOV.SI, eUprava, SPOT and OPSI are transforming the user experience of government but these sites are not the only entry to services in Slovenia as sectoral and institutional sites continue to exist and physical and telephone channels are not necessarily factored into these conversations. Therefore, while the current strategy begins to start rationalising user journeys it is a work in progress in terms of resolving the end-to-end process as there remain multiple routes for accessing government.

One of Slovenia's great strengths is its organisational openness and transparency. In the OECD Digital Government Index, Slovenia ranked highly for the User-driven (8th) and Open by Default (7th) indicators and there is no resistance or objection to involving the public in the process of transformation but rather a capacity and operational gap in terms of achieving this in practice, and at scale, throughout the public sector as a whole. Despite the high scores in the Index, the review found that the majority of organisations were not actively engaging external stakeholders, and those that were, conceived of this in ways that were not always user-driven, such as organising common working groups with others in government, or seeking the input of private sector suppliers to build consensus.

Combining policy making, service design, contractual delivery and ongoing operational relationships is important for achieving the most effective public services but Slovenia's emphasis on the relationship with private sector suppliers in preference to other sectors is making this harder to achieve. At the heart of this sits Slovenia's limited scope for recruitment and developing its internal capabilities to replace the role of outsourced suppliers. This reliance by the majority of the Slovenian public sector on external suppliers for delivery makes siloed outcomes more likely unless changes are made to the way in which contracts are phrased and delivery is overseen – perhaps through the establishment of roles that can take ownership of the end-to-end user experience and wield the necessary political, administrative and financial authority. Without an effective strategy to minimise the gap between policy, delivery and operations, there will continue to be risks to the quality of services, the capacity for government to iterate and improve over time and the effectiveness of addressing the whole needs of users.

Across the philosophical underpinnings for service design and delivery in Slovenia, there is much to commend in terms of the efforts that have been made to introduce different ways of thinking to the government, and results are visible in those places where these ideas have taken root. However, overall, there is generally patchy progress when set against the overall ambition, with the challenge remaining how these ideas, culture and practice can be embraced across government as a whole so that they are the default rather than the exception.

Enablers to support service design and delivery

Successful digital government efforts should create an enabling environment for all public sector organisations, even the smallest and least provisioned, to design and deliver transformed services at scale, and with pace. It is not sufficient for digital government to translate into the transformation of only the highest-profile services. Government as a Platform ecosystems of tools and resources help teams, at every level and in every sector of government, focus on the things that are unique to their users rather than devoting effort to challenges others have already addressed. The best examples of Government as a Platform ecosystems are not restricted only to public servants but are open to all those designing, implementing and operating policy and the services it produces, whether from the private sector, civil society or elsewhere.

As Slovenia considers its new digital strategy, there is a vital moment to consider short-, medium- and long-term ambitions for the existing resources that teams are able to use to better meets the needs of society. However, the single most important commitment for the strategy is to acknowledge and address its own needs in terms of securing the authority, mandate and resource for the MPA to develop an interconnected ecosystem that operates as a coherent toolkit, rather than a loose collection of discrete individual efforts.

Slovenia has a healthy range of guidance materials for its service delivery teams to draw on that are indexed under the National Interoperability Framework. This catalogue of over 100 different resources includes technical solutions, recommendations and mandatory guidance. While these reference materials can direct teams to the resources they need, they should be complemented by more active oversight and enforcement in order to assure the quality of design and delivery efforts. Such efforts need to be built around identifying clear decision-making and co-ordination responsibilities complemented by visibility and compliance controls covering spending and delivery activity.

Unfortunately, one of the important mechanisms for achieving this coherence, the Slovenian business case model, was observed to no longer be enforced. This model had set the expectation for information and communications technology projects with a budget in excess of EUR 20 000 to align with strategies concerning digital identity, interoperability, cloud computing, cybersecurity and other standards in service design and delivery. Moreover, few Slovenian organisations recognised the guidance materials available through the National Interoperability Framework as being relevant for assuring the quality and consistency of digital, data and technology projects during design and prior to launch. This indicates that greater authority is needed for the MPA to oversee and actively assess the quality of delivery against these guidelines. The review team heard the desire from several participants that the centre could exert more direct leadership in introducing a “Service Standard” against which services could be measured.

Such a standard would need to be complemented with a clear omnichannel strategy which Slovenia does not currently have. In the digital space, progress is being made with regards to GOV.SI, eUprava, SPOT and OPSI in terms of handling corporate information, citizen services, business services and open data with signposting between them. This has recently been complemented with efforts to extend co-operation to include local public services, which are to be welcomed. Nevertheless, although almost all corporate information has now migrated to GOV.SI there are legacy services, information and micro-sites served through older domains and infrastructure as well as those entities that continue to operate independently, even while being core to the activity of meeting the needs of either citizens or businesses. Multiple sites involve a greater overhead of co-ordination and challenges in terms of solving whole problems and designing end-to-end services as well as approaches to standards and quality because the starting point is already one of divergence and autonomy rather than federated collaboration.

The provision of building blocks to help teams deliver services is an established part of Slovenia’s strategy to simplify the integration effort for service teams and make the citizen’s user experience as proactive and seamless as possible. Initiatives in this respect cover secure hosting for services, access to data and support for interoperability, as well as the mechanism for taking payments, sending notifications or proving identity digitally. Finally, the Electronic Procedures Building Block (*Jedro elektronskih postopkov,* JEP) is providing a simple and effective route to assembling these elements into high quality services that allow teams to focus on understanding, and meeting, the needs of their users rather than developing new solutions. Such building blocks and resources are not mandatory and are showing successful signs of genuine adoption based on the value they provide with one in three organisations in the Slovenian public sector re-using technical solutions provided by another part of government and almost half identifying base registers as the primary source for the data they use to provide services.

Proposals for action

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

11. Ensure that the leadership for the digital government agenda in Slovenia is inspirational and committed to a philosophy of service design and delivery that communicates a clear direction and common vision for how transformed services can improve lives. The following priorities should be considered:
    a. Establish strong central leadership that has the authority, mandate and resources to provide strategic guidance and govern the delivery of the service design and delivery agenda across the Slovenian public sector as a whole.
    b. Use the new digital government strategy to set a clear ambition and vision for a user-driven and proactive approach to public service design and delivery that addresses needs:
        a. from when someone first attempts to solve a problem, through to its resolution (end-to-end)
        b. on a continuum from user experience to the processes for back-office staff (external to internal)
        c. across any and all of the channels involved (omnichannel)
    c. Build on the progress achieved through GOV.SI, eUprava, SPOT and OPSI and develop an action plan for omnichannel provision, not just websites, that focuses on simplifying user journeys and improving user experience in an inclusive and accessible fashion across the entire public sector, including at a municipal level
    d. Acknowledge that the benefits of digital transformation do not automatically apply to everyone and require a collective focus on needs for connectivity, digital literacy, and accessibility to ensure "digital divides" are not exacerbated
12. Establish a design culture that places users at its heart and is driven by their needs at the centre, and within the institutions of the Slovenian public sector. Such an approach will help to develop a joined-up, channel-agnostic approach to services that respond to the context of citizens and maximise the value of Slovenia's existing technical strengths. The following priorities should be considered:
    a. In line with the recommendations for digital talent and skills, give all public servants the opportunity to train in the skills for digital government with a focus on service design and invest in developing multi-disciplinary teams
    b. Influence whole of government transformation through identifying cross-government services in need of transformation that can serve as exemplars of joining up government, transforming the citizen experience and identifying specific barriers to change.
    c. Establish communities of service design and delivery practitioners drawn from across government, civil society and the private sector for sharing good practices, identify common challenges and develop shared solutions
13. Consider the Government as a Platform ecosystem of enabling resources and tools as a collective whole, and not as discrete and individual elements in order to scale whole of government transformation. The following priorities should be considered:
    a. Commit to providing sustainable funding for the ecosystem of enabling resources (guidance, methodologies, common components, etc) required to help scale transformation
    b. Reinstate the business case and spend controls process with sufficient authority to prevent duplicated spending and identify opportunities for cross-government collaboration
    c. Set an expectation for the quality of public services through a centrally mandated and assured 'Service Standard' to coach, encourage and equip teams to work in a user-driven, open by default, data-driven and proactive way
    d. Take steps to alleviate the reliance on legacy procurement and technological decisions and ensure that future commissioning and delivery activity offers as much flexibility as possible

Data-driven public sector

The public sector produces, collects and uses data every day in a variety of ways. Some of those approaches are sophisticated, strategic and value-adding, others of them are rudimentary, disconnected and fragmented, leading to unnecessary overheads for public servants and raising questions of trustworthiness in the eyes of the public. Over recent years, there has been a discernible increase in the maturity of governments to unlock the value of Open Government Data (OGD), but this is not often the case with the treatment of all other types of data.

When the use of data reinforces existing siloes, ignores standards or duplicates data stored elsewhere, this may be a deliberate decision, informed by the challenges of access to data in a country, or it may simply be that those individuals are unaware of the consequences of their decisions and have a lack of strategic visibility of data flows or the applications to which data is being put. Equally, countries may find that they are constrained by their legal, regulatory or governance structures.

Where data is not recognised, valued or treated as a strategic asset, the implications on policy, services and ultimately citizens themselves can be significant. Likewise, the extent to which governments can

achieve the proactive and seamless services that really demonstrate digital transformation will be compromised without effective data foundations. Data is a critical element in the context of "Government as a Platform" ecosystems discussed in Chapter 4 but, due to its scope and complexity warrants, its own dedicated focus and dimension within the Digital Government Policy Framework. This Framework provides the basis for the measurement of digital government maturity through the OECD's Digital Government Index (OECD, 2020[14]) (2020[15]). The analysis of the data-driven public sector in Slovenia is structured around the three areas of the OECD's Data-Driven Public Sector (DDPS) Framework: data governance, the application of data and the role of data in public trust (OECD, 2019[12]).

Data governance

The OECD's DDPS Framework advocates for a broad definition of data governance for government as a whole, and within organisations, that:

- strategically covers leadership and vision
- tactically addresses the capacities for coherent implementation and the necessary rules, laws, guidelines and standards
- operationally ensures the necessary data architecture and infrastructure to support the generation, collection, storage, processing, publication, sharing and re-use of data.

In many ways, Slovenia has a very strong record in terms of data governance. The primary indicator of this is Slovenia's success with regards to OGD and the impressive 10th place ranking in the 2019 OECD OURdata Index (2020[16]) which reflects a strong and co-ordinated approach to strategic, tactical and operational elements. However, this is not as evident in the wider treatment of data in Slovenia with the result that Slovenia ranks only 19th in the "Data-Driven Public Sector" dimension of the Digital Government Index (OECD, 2020[15]).

Part of the reason for this can be found in the old digital government strategy for Slovenia, the Public Administration Development Strategy 2015-2020 (Republic of Slovenia, 2015[7]), which contained a specific commitment to transparency, re-use and the value of OGD built on many years of progress on this topic. While the strategy did set the expectation of achieving greater use of data for "effective informatics, increased use of e-services and interoperability of information solutions" to improve the quality of citizens' lives, this has not enjoyed the same breadth of support in the Slovenian public sector.

As has been discussed as a recurring theme throughout this review, one of the biggest challenges for Slovenia has been consistent and stable visionary leadership for the digital government agenda to make sure that initiatives and ambitions deliver strategically towards a coherent outcome. When it comes to data, there is a lack of clarity around the vision and strategy that reflects the absence of national leadership and co-ordination for data: Slovenia is 1 of only 9 OECD countries without the role of Chief Data Officer (whether performed by an individual or reflected in the responsibility of one, or many, organisations). Although there is good data practice in Slovenia, the lack of leadership and of a clear vision and strategy is preventing a co-ordinated approach that can better unlock the potential of data for Slovenia.

Under the oversight of strong leadership, Slovenia can develop a new strategy for the public sector's use of data (both open or closed) that cements its recognition as a political priority to secure funding, ensures central co-ordination for the success of its implementation and disseminates the expectation within individual organisations to value the role of data according to the OECD DDPS Framework. This final piece of the effort to embed data-driven public sector practices in Slovenia will rely on developing a greater sense of cross-government ownership of the data agenda at an institutional level to encourage local leadership but also to balance the national needs for the application of data with internal priorities for operationalising its use and role.

However, in order to use local data leadership as a foundation for a national data strategy, further investment will need to be made in the skills for digital government within organisations. Two of the five

most significant barriers to the effective use of data in Slovenia are a deficit in the awareness and motivation of managers and senior officials while 40% of Slovenian organisations felt that they lacked the necessary technical capacities. It was encouraging to see that the MPA in collaboration with experts from Slovenian universities has developed data-related training courses, and some individual organisations were investing in underlying skills. Nevertheless, the chapter on the Skills and Talent for Digital Government in Slovenia reflects the first-order challenge of placing a responsibility on all public servants, but especially public servant leaders, to develop a grounding, appreciation and enthusiasm for the OECD's Five Skills for Digital Government (OECD, 2021[13]), two of which focus on data.

Much of the success in terms of data in Slovenia is owed to a strong legal and regulatory basis that not only underpins data protection but supports and encourages the opening up and re-use of government data both internally and beyond government. In addition to legislation, Slovenia benefits from the National Interoperability Framework to showcase guidelines and standards to support the handling of data as well as the interoperability platform TRAY (*ePladenj*) and base registers that are used by 66% of institutions for retrieving identifiable data on citizens or businesses.

The combined impact of these enablers is a valuable foundation for the data agenda and for unlocking value throughout the Government Data Value Cycle (2019[17]). This is evidenced by the healthy eco-system of data sharing and re-use in Slovenia with a majority of organisations running services using data supplied from elsewhere in government, and almost half collecting data that provides the basis for services elsewhere in government. As noted, the previous digital government strategy acknowledged interoperability as an important focus for data and Slovenia benefits from an impressive data infrastructure that contributes to the ecosystem of enabling resources and tools. Nevertheless, while there is an enthusiasm for TRAY, the review learned that several influential organisations responsible for primary registers do not use TRAY to allow access to their data which results in a fragmented approach to interoperability and data sharing.

Application of data for public value

The second focus of the analysis on the data-driven public sector in Slovenia is on how public sector organisations are putting data to use and on the value being derived from these activities in three interconnected phases of government:

- to look ahead (whether in designing policy, anticipating change, forecasting need or imagining futures);
- to deliver in the present (in terms of implementing policy, delivering services or responding to change as it happens); and
- to make a retrospective analysis of what has taken place (through measuring impact, auditing decisions and monitoring performance).

Overall, the Slovenian experience pointed to greater confidence and experience in the use of data for retrospective analysis and evaluation with 1 in 3 organisations identifying initiatives to strengthen the analysis of data for these purposes.

Nevertheless, almost 50% of institutions in Slovenia reported that they were using data to equip and prepare themselves for future developments and strengthen the basis for policymaking in the country. Through the Digital Government Survey, the review team heard about three specific areas of focus: from those organisations that were using data to inform the design of future policy, those that were using data for forecasting purposes, and those that derived value from data through modelling the outcome of proposed change. These examples largely reflected local concerns and organisational leadership rather than being indicative of a national, strategic, perspective on the value of data when applied to future planning and anticipation.

Fifty percent of institutions were aware of the role of data in the delivery of services. Much of this value comes from Article 139 of the Administrative Procedure Act (Republic of Slovenia, 1999[18]) which obliges public officials to source data from existing records rather than requesting it from citizens. This support for the "once only principle" in Slovenia was evidenced by the institutions reporting that data directly requested from citizens is only the sixth most frequently cited data source behind data accessed via TRAY and the base registers. This underlying data infrastructure acts as a transformative enabler for user-driven proactiveness and means that data-driven services are fairly common in Slovenia; they range from improving public services that respond to citizen needs, to freeing up public servant capacity, through communicating and engaging with the public, as well as better responding to emergencies, crises and developing situations.

Finally, almost half of Slovenia's institutions reported the use of data to evaluate and monitor their activities. This third area of applying data to generate public value produced the highest quantity and widest range of examples, reflecting other insights that indicated this area as being the best established within the Slovenian public sector's understanding of a data-driven public sector. The first group of examples supplied related to measuring the performance of policy; the second to internal audit and external transparency; the third to establishing feedback loops between performance and follow up response in an active approach to evaluation and monitoring; and the fourth to performance data on transactional services.

However, the majority of examples in all three cases tended to be of arms-length quantitative or qualitative research and lacked a widespread appreciation for the importance of a service design approach that understands whole problems, designs the solution from end to end and actively involves the public on an ongoing basis to iterate towards better solutions. There is a philosophical gap in terms of how far teams are user-driven in their understanding or practice with one data specialist commenting that "we do data, we don't do services". This reflects the challenge of the Slovenian public sector often finding itself highly competent and professional in technical terms, but lacking multi-disciplinary responses to the needs of users that can deliver the best outcomes.

Data for public trust

The final aspect of the DDPS Framework analyses the role of data for public trust in terms of ethics, privacy and consent, transparency and security. According to the Gallup World Poll (2018[19]), the level of confidence in the national government of Slovenia declined by 24 percentage points since 2007 making trust an important factor in the political narrative of the country. Despite this challenging data point, in the context of this review it was felt that there is much for Slovenia to be proud of in terms of the approach to openness and transparency for public trustworthiness. The high scores for the Digital Government Index's "Open by default" dimension (OECD, 2020[15]) reflects the country's strengths in OGD and efforts at transparency that include greater visibility of government spending and public sector salaries as well as exploring opportunities to give citizens influence over government decision-making.

Furthermore, Slovenia's approach to handling data is generally robust in terms of data protection and data security. Although Slovenian's membership in the EU means that the country falls under the provisions of the EU's General Data Protection Regulation, the steps that were being taken in the country were more than a simple reflection of this wider legislation. The country's Information Commissioner is an important and influential actor and has developed over 30 guidelines and provided in excess of 3 000 opinions to which the Slovenian public sector can refer.

Meanwhile, digital security has been emphasised following the development of the country's cyber security strategy in 2016 (Republic of Slovenia, 2016[20]), a process for which the Information Security Administration of the Republic of Slovenia (*Uprava za informacijsko varnost*) took a user-driven approach with design sessions and public consultation. This strategy was followed by two pieces of legislation in 2018: the Decree on Information Security in Public Administration (Republic of Slovenia, 2018[21]) and the Information Security Act (Republic of Slovenia, 2018[21]) which built on the earlier Personal Data Protection

Act (Republic of Slovenia, 2004[22]). This legislation has successfully made digital security a strength of the Slovenian public sector with the majority of institutions having a strategy in place and a subject matter expert often joining the interviews carried out during the peer review mission to Ljubljana. Nevertheless, it is important to find a balance between mitigating risks and still being able to experiment and explore the transformational opportunities offered by a more ambitious use of digital technology and data.

However, there are important areas where any future digital government or data focused strategies could concentrate their energies to continue developing a trustworthy narrative in the context of how Slovenia handles citizen data. The first area relates to limited awareness of data ethics connected to the wider lack of centralised vision and strategy for data. Although 1 in 3 organisations felt that there was a strong basis for ethics in the use of data in Slovenia many of the responses cited legal instruments for data and less evidence of insight around the practices associated with an ethical approach to data as envisaged by the OECD Good Practice Principles for Data Ethics in the Public Sector (2021[23]).

A second area of concern relates to the practical means by which citizens and businesses can interrogate the use of their data by the Slovenian public sector. Although institutions were aware of their responsibilities under the EU's General Data Protection Regulation, there was a limited understanding of how to treat data in a user-centred and citizen-driven way as well as a lag in enabling citizens and businesses to express their rights in practice and have visibility and control over their data. The ongoing adoption and roll-out of SI-PASS may provide an important route for empowering citizens to take control of their attributes and credentials.

The final consideration about the role of data for trust also relates to transparency but, rather than the treatment of data on an individual basis, it concerns the importance of governments being open and transparent about the role of automated decision-making and Artificial Intelligence. Several OECD countries have created a legal basis for transparency of algorithms, but no such central initiative exists in Slovenia. Only three organisations (the Information Commissioner, ZPIZ and the Ministry of the Environment and Spatial Planning) implement initiatives to provide transparency and accountability on the algorithms they use for public decision-making.

Proposals for action

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

14. Identify strong leadership with the authority, mandate and resources to provide strategic oversight and govern the delivery of the data agenda in Slovenia. The following priorities should be considered:
    a. Establishing the role of 'Chief Data Officer' whether through recruiting a specific official into this role, or designating an organisational model to provide this function
    b. Developing a dedicated strategy for the role of data in the Slovenian public sector that seeks to extend the successes of Open Government Data into the governance and application of internal, closed data.
    c. Securing the resources to invest in the skills required among leaders to champion Digital Government and particularly data
    d. Creating networks across government dedicated to encouraging organisational collaboration and building a shared vision for public sector data
    e. Further developing the legal and regulatory basis for accessing data and sharing it between organisations to make this as straightforward as possible
15. Building on strong technical and practical foundations for data, take steps to encourage a culture of data-driven transformation. The following priorities should be considered:
    a. Ensuring that the approach to data skills covers the entire government data value cycle and all aspects of the Data-Driven Public Sector framework
    b. Introducing data-related elements to existing or newly identified governance processes (whether in terms of business cases, project management or quality assurance methodologies)
    c. Establishing cross-government communities of data to share good practices, identify common challenges and develop shared solutions
    d. Incentivising and rewarding the application of data to generate public value whether throughout the data-driven public sector framework's lifecycle of anticipation and planning, delivery, or evaluation and monitoring
16. Strengthen existing efforts to recognise the role of data as a critical element in the trust citizens and business place in government. The following priorities should be considered:
    a. Exploring how to give citizens and businesses greater practical visibility of data usage, flows and associated consents
    b. Commit to increasing the transparency of data and algorithmic use when automating decision making or deploying emerging technology in the design and delivery of public goods and services

1 Contextual factors and institutional models

This chapter analyses and assesses the governance for digital government in Slovenia focusing on the contextual factors and institutional models that underpin the digital transformation of the public sector in the country. The first two sections review the overall political and administrative culture as well as socio-economic factors and the technological context that determine Slovenia's path towards digitalisation of the public sector. A third section focuses on macro-structure and leading public sector organisation in charge of digital government policy. The fourth and last section discusses the existing co-ordination and compliance mechanisms meant to secure policy coherence and alignment across sectors and levels of government.

Introduction

Given the rapid and disruptive digital progress transforming economies and societies, governments around the world face the challenge of using digital technologies and data throughout the public sector to spur productivity, to design and deliver user and data-driven policies and services in expectation of creating public value and facilitating the day-to-day life of citizens. The COVID-19 pandemic has reinforced this trend, highlighting the importance of investment in digital transformation to demonstrate the resilience, responsiveness and agility required of public sector organisations. Public sectors are expected to adjust quickly and without interruption to continuously generate public value in an inclusive and fair way. In order to enhance the impact of the digital transformation, government-wide cohesive approaches are essential.

This can be achieved through the establishment of a governance framework that secures sound leadership, strategic coordination and the involvement of a stakeholder ecosystem drawn from both inside and outside government, to enable administrations to ensure coherent and sustainable implementation of digital government policies. Therefore, it is as important for the governance framework to support digital transformation to fit the national context as it is to secure the necessary financial investment..

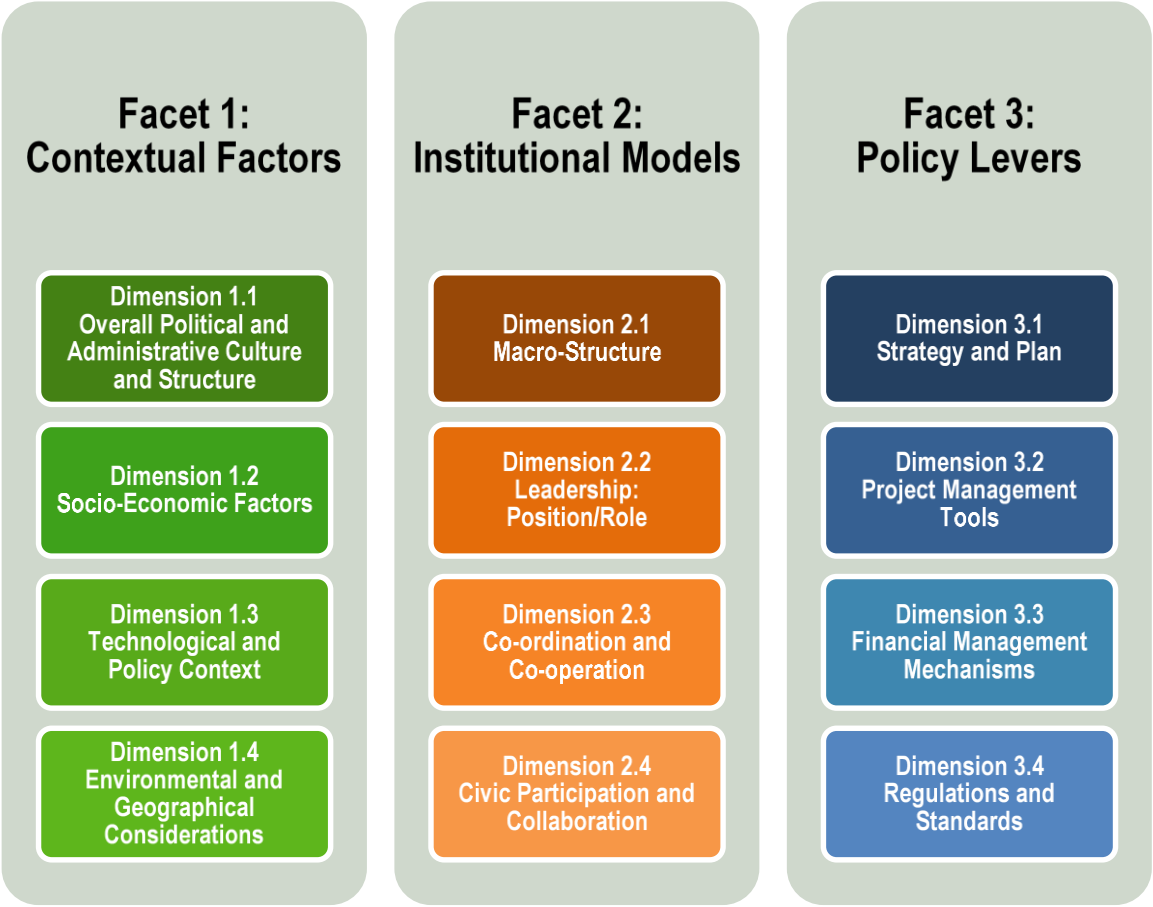
Building on the knowledge and experience of OECD member and non-member countries, the E-Leaders Handbook on the Governance of Digital Government provides a framework to guide policy makers in assessing and improving their digital governance principles, arrangements and mechanisms that would ultimately contribute to bettere design, co--ordination and implementation of digital government policies (see Figure 1.1). Additionally, it offers policy options and recommendations based on global good practices with the idea that no single solution fits all (OECD, forthcoming[24]).

The OECD Framework on the Governance of Digital Government presents three governance facets:

- *Contextual factors* that provide a definite knowledge of country-specific characteristics and define the most suitable governance principles, arrangements and mechanisms according to the domestic social, economic and political conditions (applied to the Slovenian context and analysed in Chapter 1);
- *Institutional models* that defines the institutional set-up and mechanisms in place (e.g. leadership, responsibilities, co-ordination, collaboration) that guide the design and implementation of digital government policies and achieve a sustainable digitalisation of the public sector (applied to the Slovenian context and analysed in Chapter 1);
- *Policy levers* that support the coherent implementation of digital government strategies and use of digital technologies across policy areas and levels of government (applied to the Slovenian context and analysed in Chapter 2).

Figure 1.1. The OECD Framework on the Governance of Digital Government

The three governance facets and each of their four dimensions



Source: OECD (forthcoming[24]), *E-Leaders Handbook on the Governance of Digital Government*

The current chapter applies the first two facets of the E-Leaders Governance Framework – contextual factors and institutional models (see Figure 1.2 and Figure 1.3) – to the Slovenian digital government landscape. The analysis starts by assessing and discussing the overall political and administrative culture in place, including sub-dimensions such as the country's power structure, the existing political continuity and stability, as well as the level of centralisation/decentralisation of the Slovenian public sector. The second section analyses the socio-economic factors and technological context in the country, including Slovenian's well-being[1], the levels of digitalisation across the population and the overall maturity of digital government. The third section focuses on macro-structure and the public sector organisation leading the digital government policy in Slovenia, analysing its mandate, role, practises and recognition across the Slovenian public sector. The last section of the chapter concentrates on the co-ordination and compliance mechanisms in place to secure a coherent and sustainable digitalisation of the Slovenian public administration.

[1] Analysis based on the OECD *How's Life? 2020: Measuring Well-being* publication (OECD, 2020[2]).

Figure 1.2. The OECD Framework on the Governance of Digital Government: Contextual factors

The dimensions and sub-dimensions of Facet 1: Contextual Factors

Dimension 1.1 Overall Political and Administrative Culture and Structure

- Sub-Dimension 1.1.1 Power Structure: Federal or Decentralised vs. Decentralised Systems
- Sub-Dimension 1.1.2 Geopolitical Situation and International/Cross-Border Relations
- Sub-Dimension 1.1.3 Political Continuity, Stability and Support for the Digital Transformation Agenda
- Sub-Dimension 1.1.4 Degree of Legalism and Form of Democratic Governance
- Sub-Dimension 1.1.5 Current Regulations on Digital Rights Maturity

Dimension 1.2 Socio-Economic Factors

- Sub-Dimension 1.2.1 Overall Economic Climate
- Sub-Dimension 1.2.2 Maturity of the Private Sector and the Digital Industry
- Sub-Dimension 1.2.3 Level of Digital Skills in the Public Sector and the Population
- Sub-Dimension 1.2.4 Level of Public Trust
- Sub-Dimension 1.2.5 Diversity
- Sub-Dimension 1.2.6 Cross-Border Mobility

Dimension 1.3 Technological and Policy Context

- Sub-Dimension 1.3.1 Coverage and Level of Development of ICT/Digital Infrastructures
- Sub-Dimension 1.3.2 Technological/E-Government Heritage and/or Legacy within the Public Sector
- Sub-Dimension 1.3.3 Integration of ICT/Digital into Governance and Business Processes

Dimension 1.4 Environmental and Geographical Considerations

- Sub-Dimension 1.4.1 Local/Regional Variances
- Sub-Dimension 1.4.2 Environmental and Geological Risks and Hazards
- Sub-Dimension 1.4.3 Priority for Environmental Protection and the Green Transition

Source: OECD (forthcoming[24]), *E-Leaders Handbook on the Governance of Digital Government*

Figure 1.3. The OECD Framework on the Governance of Digital Government: Institutional models

The dimensions and sub-dimensions of Facet 2: Institutional Models

Dimension 2.1 Macro-Structure

- Sub-Dimension 2.1.1 Organisation-in-Charge
- Sub-Dimension 2.1.2 Institutional Set-Up for Digital Government
- Sub-Dimension 2.1.3 Roles and Responsibilities of the Leading Public Sector Organisation

Dimension 2.2 Leadership: Position/Role

- Sub-Dimension 2.2.1 Chief Information Officer (CIO) and Chief Data Officer (CDO)
- Sub-Dimension 2.2.2 Hierarchical Importance and Basis

Dimension 2.3 Co-ordination and Compliance

- Sub-Dimension 2.3.1 High-Level Co-ordination
- Sub-Dimension 2.3.2 Organisational and Technical Co-operation

Dimension 2.4 Civic Participation and Co-operation

- Sub-Dimension 2.4.1 Citizen Participation and Co-operation
- Sub-Dimension 2.4.2 Industry Participation and Co-operation

Source: OECD (forthcoming[24]), *E-Leaders Handbook on the Governance of Digital Government*

Overall political and administrative culture

The administrative and institutional features of countries vary substantially, and this can represent different opportunities or challenges for policy implementation. The geopolitical situation, the various possible structures of the executive branch, the division of power between the central and sub-national levels of government, as well as political stability and continuity are variables that determine how policy approaches need to be designed and implemented in order to be effective. This institutional variety among countries explains why successful policy approaches in one country cannot necessarily be replicated in different contexts. When considering OECD member countries, this institutional diversity is naturally high, determining different grounds, paths and models for digital government policy development.

Slovenia is a parliamentary democratic republic with a population of approximately 2.1 million inhabitants of a geographically small stature (the fourth smallest in the European Union (EU)). Since independence in 1991 the country has benefitted from stable international relations with its neighbours, both in the broader European context and in the Balkans region. A former Yugoslavian republic, the country quickly achieved democratic political stability, implementing the necessary social and economic reforms to help Slovenia progressively strengthen relations in the European continent. Slovenia's accession to the OECD in 2010 reflects impressive political, economic and social progress in the two decades following independence.

The government system is based on a president – head of state – directly elected by universal suffrage and a prime minister – head of government – elected by the parliament with mandates of four years. However, since independence, the longevity of governments has been relatively short: only exceptionally have governments completed their four-year mandates. This follows from the country's parliamentary system where government longevity depends on a parliamentary majority to support it and it being rare for any single party to secure an absolute electoral majority. In thirty years of independence Slovenia has already had 14 governments (see Table 1.1). Although the democratic system is stable, the limited duration of governments and political cycles are a policy challenge identified by public and private stakeholders during the OECD fact-finding mission held in Ljubljana in October 2019. Changes to political leadership at

a government level contributed to changing policy priorities. The frequent need of the Slovenian public sector to respond to new policy orientations is a challenge to stable, coherent and durable policy development in several critical digital government areas including interoperability policies, digital identity approaches or coherent approaches to service design and delivery.

Table 1.1. List of governments in Slovenia between 1990 and 2021

Government	Prime minister	Start of term	End of term
1st	Lojze Peterle	16 May 1990	14 May 1992
2nd	Janez Drnovšek	14 May 1992	25 January 1995
3rd		25 January 1995	27 February 1997
4th		27 February 1997	7 June 2000
5th	Andrej Bajuk	7 June 2000	30 November 2000
6th	Janez Drnovšek	30 November 2000	19 December 2002
7th	Anton Rop	19 December 2002	3 December 2004
8th	Janez Janša	3 December 2004	21 November 2008
9th	Borut Pahor	21 November 2008	10 February 2012
10th	Janez Janša	10 February 2012	20 March 2013
11th	Alenka Bratušek	20 March 2013	18 September 2014
12th	Miro Cerar	18 September 2014	13 September 2018
13th	Marjan Šarec	13 September 2018	13 March 2020
14th	Janez Janša	13 March 2020	

Source: Wikipedia (2020[25]), https://en.wikipedia.org/wiki/List_of_governments_of_Slovenia (edited 17 March 2020), based on Vlada Republike Slovenije, https://www.gov.si/drzavni-organi/vlada/o-vladi.

Regarding territorial administration, Slovenia has been considered a decentralised unitary state since 1993, with 12 regions and 212 municipalities. The country's sub-national levels of government benefit from strong autonomy in policy areas such as internal affairs, traffic, construction and agriculture. (European Committee of the Regions, 2021[26]) Nevertheless, when compared to OECD countries, Slovenia has a relatively centralised administration. The central government has national legislative powers in all policy areas, and state authorities supervise the legality of the work of sub-national levels of government. Considering the size and relatively homogenous territory, the fact that the administration model is relatively centralised can be an asset for coherent and sustainable digital government policy development. Provided that space is left to address sub-national specificities, clear policies from central government can in principle be quickly adopted throughout the territory, avoiding policy fragmentation and pulverised implementation.

Slovenia has been a member of the EU member since 2004 and a member of the Schengen area since 2007. Its legal, regulatory and administrative context in the areas of digital economy, society and government is strongly influenced by existing EU policies. The European directives and regulations in these policy areas applied in the country determine the philosophy and fabrics of Slovenian digital transformation. This policy integration and context stimulate strong co-operation and synergies with other EU member states. Given that Europe is one of the leading actors of the worldwide digital transformation underway, Slovenia has strongly benefited from its EU membership, allowing its public sector to join efforts and keep the pace of development of other member states.

In line with its European peers, Slovenia has also benefited from considerable EU financial support for the development of its digital government. The EU has consistently funded its member states digitalisation efforts, at least since the approval of the Lisbon Strategy, launched in March 2000 by the European heads of state and government in order to make Europe "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater

social cohesion" (European Parliament, 2021[27]). Numerous European strategies, actions plans, initiatives and projects have guided strong funding mechanisms that have allowed EU member states to consistently invest in the digital transformation of different social and economic sectors. The European public sectors have benefited from important investments, and Slovenia has not been immune to these strong and consistent investment efforts.

In this sense, the contextual political and administrative culture generally favours digital government development in Slovenia. As a geographically small, relatively centralised country that is strongly involved in European co-operation, Slovenia has the capacity to move fast, in an agile manner, and to quickly leapfrog digital government maturity stages. The country's government should increasingly consider these contextual factors as comparative assets of the digital government policy and properly leverage them for improved public processes and services.

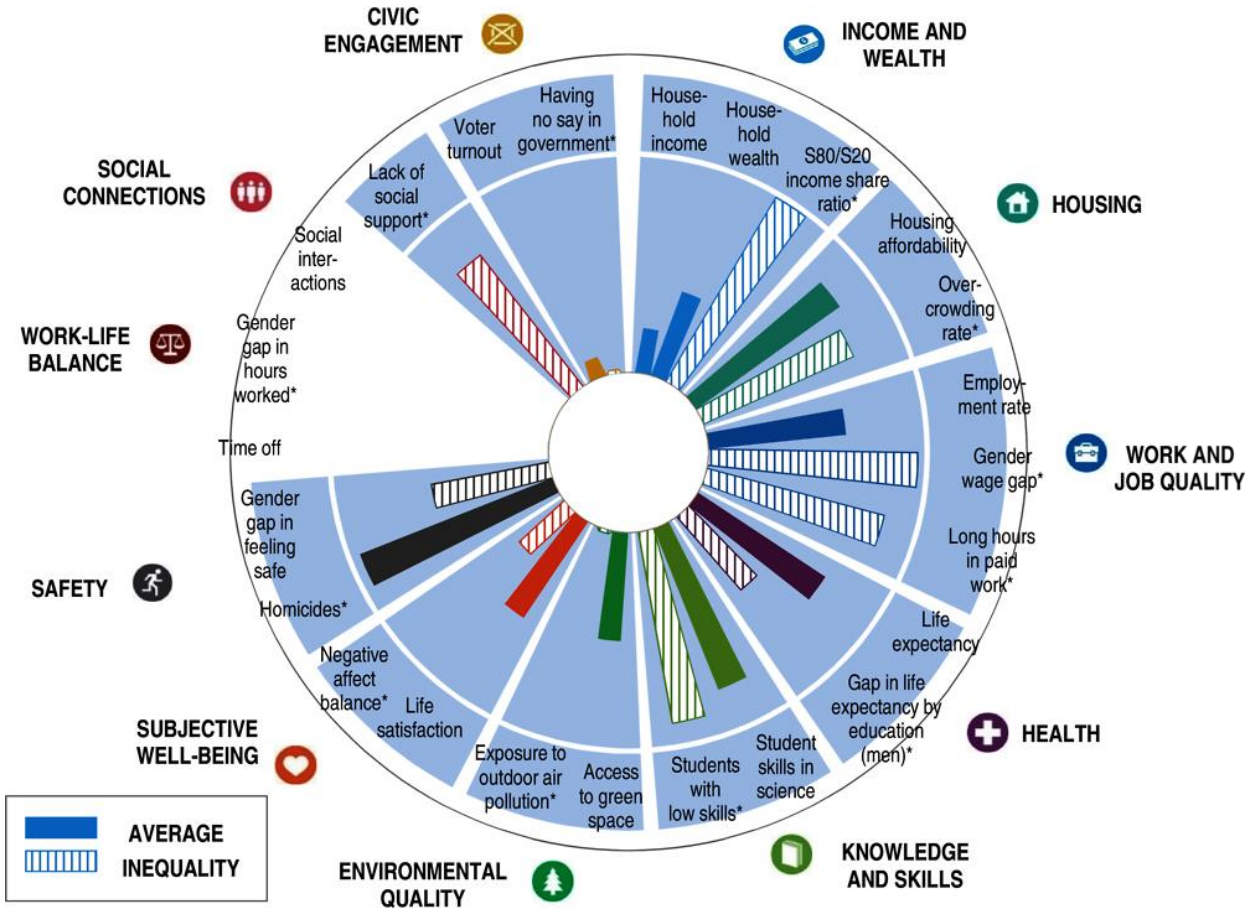
Socio-economic factors and technological context

Understanding, considering and leveraging the socio-economic, technological and geographic context of a country is fundamental for a sound digital government policy. The governance in place needs to take into account fundamental contextual factors such as the overall economic climate, the levels of digitalisation within the population and adoption of digital public services, the coverage and development of information technology (IT) infrastructures, but also the regional variances and the heterogeneity of local economies.

Slovenia performs around the EU average when considering gross domestic product per capita in purchasing power standards (European Union, 2021[28]). Since its independence from former Yugoslavia, the country has benefited from continuous economic growth that has allowed improved living standards for its population. Although the financial crisis in late 2000 had strong impacts on the country and the current COVID-19 pandemic context probably threatens gains made over the past five years (OECD, 2020[29]), Slovenia ranks 22nd on the United Nations Human Development Index (UNDP, 2020[30]).

The country presents positively evolving well-being standards according to the OECD *How's Life? 2020* report (OECD, 2020[2]). As can be seen in Figure 1.4, areas of high well-being in the OECD context relate to levels of housing affordability, work and job quality, health, knowledge and skills, as well as safety. It is also important to notice that Slovenia is one of the top OECD performers in the Gini coefficient (that measures the distribution of income across population), with taxation being an important variable in reducing social inequality in the country (Figure 1.5).

Figure 1.4. Slovenia's current well-being, 2018 or latest available year



Note: This figure shows Slovenia's relative strengths and weaknesses in well-being compared to other OECD countries. Longer bars always indicate better outcomes (i.e. higher well-being), whereas shorter bars always indicate worse outcomes (lower well-being) – including for negative indicators, marked with an *, which have been reverse-scored. Inequalities (gaps between top and bottom, differences between groups and people falling under a deprivation threshold) are shaded with stripes, and missing data are in white.
Source: OECD (2020[2]), "How's Life in Slovenia?", in *How's Life? 2020: Measuring Well-being*, https://dx.doi.org/10.1787/9870c393-en.

Figure 1.5. Social inequality – changes in the Gini coefficient due to taxation and transfers, working-age population, 2017 or latest available year

Note: The Gini coefficient has a range from zero (when everybody has identical incomes) to one (when all income goes to only one person). An increasing Gini coefficient indicates higher inequality in the income distribution. Data for Australia and Israel are from 2018, and data for Slovenia are from 2017

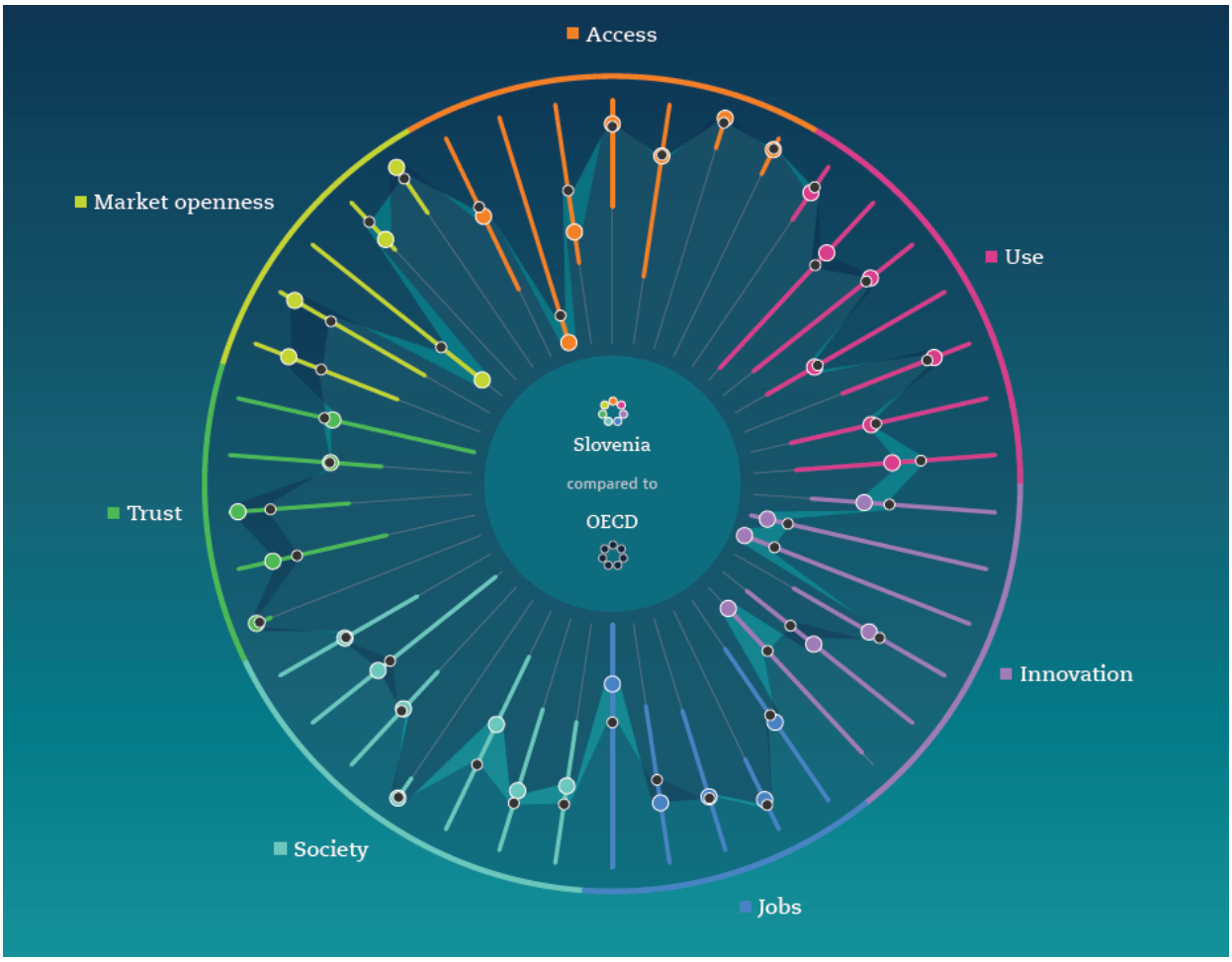
Source: OECD (2021[31]), *OECD Income Distribution Database*, www.oecd.org/social/income-distribution-database.htm

However, the most identifiable challenges for the well-being of the country relate to voter turnout and participation in government affairs, as well as household health and household income (Figure 1.4). The OECD Economic Survey of 2020 also identified the ageing of the Slovenian population as one of the biggest challenges the country faces in the middle term. For instance, the old-age dependency ratio that measures the share of the population older than 65 over the working-age population (20-64 years old) in Slovenia is projected to reach 60% in 2055. This forecast scenario shows that policies to tackle an ageing population are one of the priorities the country should consider adopting once the COVID-19 post-recovery has become self-sustained (OECD, 2020[29]).

The observed human development and well-being are important underlying conditions that favour Slovenia's reasonable levels of economic and social digitalisation when compared with OECD countries. According to the OECD Going Digital Toolkit (Figure 1.6),[2] in the dimension of access to communications infrastructures, services and data, the country performs very well in 4G broadband coverage and household broadband access. Mobile broadband mobile penetration is nevertheless an indicator where Slovenia performs clearly below the OECD average (a score of 47 for Slovenia against the OECD average of 64). The country performs reasonably well on effective use of digital technologies and data, with good scores, for instance, in businesses with a web presence or people buying online. Digital market openness is high in Slovenia, with good scores when compared with the OECD average, for instance, in cross-border e-commerce. It is also important to notice that 87% of Slovenians aged between 16 and 64 use the Internet, which corresponds exactly to the average of the EU.

[2] The Going Digital Toolkit (OECD, 2020[4]) helps countries navigate the digital transformation affecting many aspects of the economy and society in complex and interrelated ways. This OECD policy instrument is based on a framework of seven policy dimensions: 1) access to communications infrastructures, services and data, 2) effective use of digital technologies and data, 3) data-driven and digital innovation, 4) good jobs for all, 5) social prosperity and inclusion, 6) trust in the digital age, and 7) market openness in digital business environments. The Toolkit maps a core set of indicators to each of the seven policy dimensions. More information is available at https://goingdigital.oecd.org.

Figure 1.6. Going Digital – Slovenia



Source: OECD (2020[4]), *OECD Going Digital Toolkit* (database), https://goingdigital.oecd.org/ (accessed December 2020).
Note: M2M stands for Machine to Machine. STEM stands for science, technology, engineering and math. FDI stands for foreign direct investment.

The biggest limitations highlighted by the OECD Going Digital Toolkit refer to the data-driven and digital innovation policy dimension. Whether considering information and communications technology (ICT) investment intensity, research and development in information industries, ICT venture capital investment or ICT patents, the country performs always considerably below the OECD average. Although these innovation indicators reflect mostly private sector performance, they can also mirror structural innovation-adverse contextual factors that affect the public sector practice and culture. In fact, during the fact-finding mission organised in Ljubljana in October 2019, as well as in the capacity-building workshop on digital talent and skills held remotely in December 2020, the limited public sector innovation culture was frequently highlighted as a challenge by various Slovenian stakeholders involved.

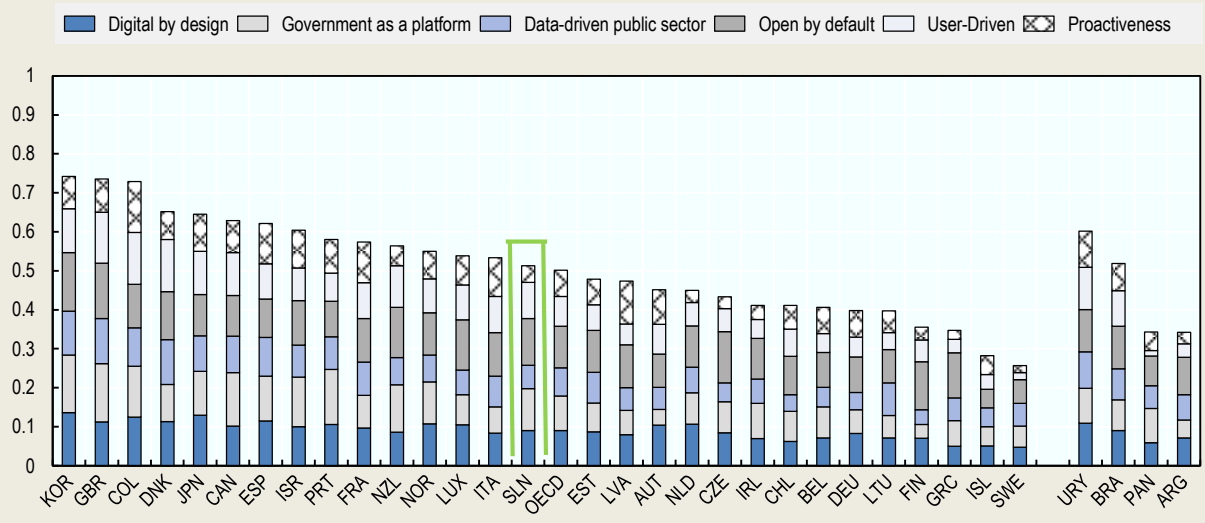
The good levels of digitalisation of the Slovenian economy and society can be seen in increasing online interaction with government. In 2005, only 19% of individuals were using the internet to visit public authority websites in Slovenia but by 2020 that figure had progressed to 67%, well above the EU average of 56% (OECD, 2020[4]). Box 1.1 describes the OECD approach to determining digital government maturity against which the Digital Government Index is measured and the results of which in Figure 1.7 show Slovenia performing slightly above the OECD average ranking 15th of 29 OECD countries, and 7th among 19 participating EU countries (OECD, 2020[15]).

Box 1.1. OECD Digital Government Policy Framework and Digital Government Index

The *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[32]) underscores the paradigm shift from e-government to digital government required to realise the digital transformation of the public sector. The OECD Digital Government Policy Framework (OECD, 2020[14]) builds on its provisions to help governments identify the key factors for effectively designing and implementing strategic approaches to achieve higher levels of digital maturity. Digital government maturity is then measured by the OECD Digital Government Index (OECD, 2020[15]) against its six dimensions, which are:

1. **Digital by design**: establishing clear leadership, paired with effective co-ordination and enforcement mechanisms so that "digital" is not only a technical topic, but a transformational element for rethinking and re-engineering public processes, simplifying procedures, and creating new channels of communication and engagement with public stakeholders.
2. **Data-driven public sector**: recognising data as a strategic asset and establishing the governance to generate public value through planning, delivering and monitoring public policies and services while adopting rules and ethical principles for trustworthy and safe access, sharing and re-use.
3. **Government as a platform**: an ecosystem of guidelines, tools, data, standards and common components that equip teams to focus on user needs in public service design and delivery.
4. **Open by default**: making government data and policy-making (including algorithms) available for the public, within the limits of legislation and in balance with the national and public interest.
5. **User-driven**: awarding a central role to people' needs and convenience in the shaping of processes, services and policies; and by adopting inclusive mechanisms for this to happen.
6. **Proactiveness**: the ability to anticipate people's needs and respond rapidly, so that users do not have to engage with cumbersome processes associated with service delivery and data.

Figure 1.7. The OECD Digital Government Index 2019 Composite Results



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.

Source: OECD (2020[14]), *The OECD Digital Government Policy Framework: Six Dimensions of a Digital Government,* https://dx.doi.org/10.1787/f64fed2a-en; OECD (2020[15]), *Digital Government Index: 2019 results,* http://dx.doi.org/10.1787/4de9f5bb-en

Slovenia's best results are attained by making government data and policy-making processes accessible to the public, within the limits of existing legislation (*Open by Default* dimension), and by according a central role to people's needs in shaping processes, services and policies (*User-Driven* dimension). Slovenia's average performance in the Index, with results particularly low in the *Data-Driven Public Sector* and *Proactiveness* dimensions (respectively 19th and 23rd out of 29 OECD countries) suggests the country can further improve the use of data as a strategic asset to inform decision-making and service delivery processes (Table 1.2). This might equip Slovenia with important foundations to anticipate people's needs and respond to them proactively.

Table 1.2. Digital Government Index – Snapshot of results from Slovenia

	Digital by Design	Data-Driven Public Sector	Government as a Platform	Open by Default	User-driven	Proactiveness	**Composite Score**
DGI Score	0.54	0.36	0.64	0.72	0.56	0.25	0.51
Ranking position among OECD countries	15	19	11	7	8	23	15
Ranking position among EU countries	8	11	3	5	2	13	7

Note: The OECD countries that did not take part in the Digital Government Index (DGI) are Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 EU countries participated in the Digital Government Index.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* http://dx.doi.org/10.1787/4de9f5bb-en.

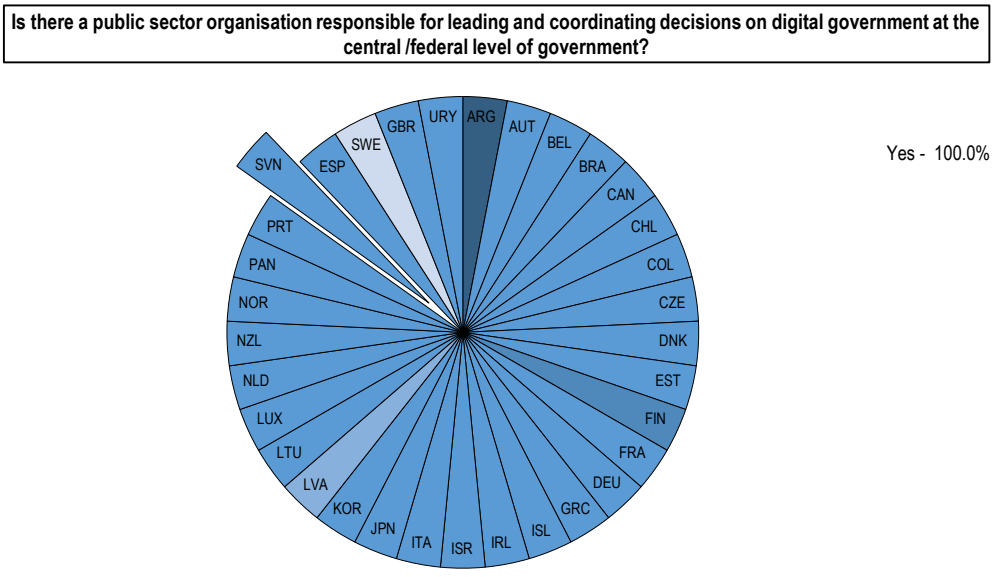
Overall, the socio-economic and technological context in Slovenia is generally very positive. The human development and population well-being levels in the country provide strong pillars for a robust, resilient and sustainable digital transformation of the economy, society and government. Despite the cultural weaknesses identified in innovation, there are generally good conditions to enhance the benefits of the digital transformation in the public sector, to reinforce the country's path for improved social well-being and sustainable economic development.

Macro-structure and leading public sector organisation

The clarity, stability and simplicity of the institutional model that supports priorities of digital government are foundational elements for good policy leadership, co-ordination and implementation. Established roles and duties agreed and recognised across the administration are critical for consistent, coherent and sustainable digital change. The existence of a public sector organisation responsible for guiding and co-ordinating digital government policies is a central element of governance analysis. Considering the different contextual factors, namely the country's institutional culture and legacy, this public sector organisation needs to be properly located in the government structure, benefit from a clear political mandate and be equipped with the human and financial resources that can enable it to be a real driver of change across the different levels and sectors of government.

As presented in Figure 1.8, all countries that participated in the OECD Survey on Digital Government confirmed that a public sector organisation leads and co-ordinates digital government at the central/federal level of government. However, the institutional shape of this leading public sector institution can be diverse (OECD, 2020[15]). Some countries locate this institution in the centre of government (e.g. Chile, France and the United Kingdom); others drive the digital government policy through a co-ordinating ministry such as finance or public administration (e.g. Denmark, Italy, Portugal and Sweden) or through a line ministry (e.g. Estonia, Greece and Luxembourg). The leading public sector institution can also have different institutional shapes such as a public sector agency approach (e.g. Denmark and the United Kingdom as discussed in Box 1.2), a unit, office or directorate (e.g. Colombia and Korea) or a political level ranking authority such as a minister or secretary of state (e.g. Brazil, Estonia and Greece).

Figure 1.8. 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, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Question 59 "Is there a public sector organisation (e.g. Division, Unit, Agency) responsible for leading and coordinating decisions on digital government at the central /federal level of government?", http://dx.doi.org/10.1787/4de9f5bb-en.

Box 1.2. Digital Government Leadership – Examples from Denmark and the United Kingdom

Agency for Digitisation – Denmark

Within the Ministry of Finance, the Agency for Digitisation was established in 2011 to lead the Danish government digitisation policies. With the aim of renewing the Danish welfare, the agency is responsible for the implementation of the government's digital ambitions and policies in the public sector.

The agency leads numerous emblematic digital government projects such as the Digital Post, the digital driver's license, the digital Health Insurance Card, the Danish digital identity and the national citizen portal borger.dk. Due to its clear leading and co-ordination role, the Agency is commonly recognised by

senior digital government officials from other countries as one of the critical reasons for the high maturity of the digital government policy in Denmark.

Government Digital Service – United Kingdom

The Government Digital Service (GDS) was founded in December 2011. It is part of the Cabinet Office, the United Kingdom's centre of government, and works across the whole of the government to help departments meet user needs and transform end-to-end services. GDS' responsibilities are to:

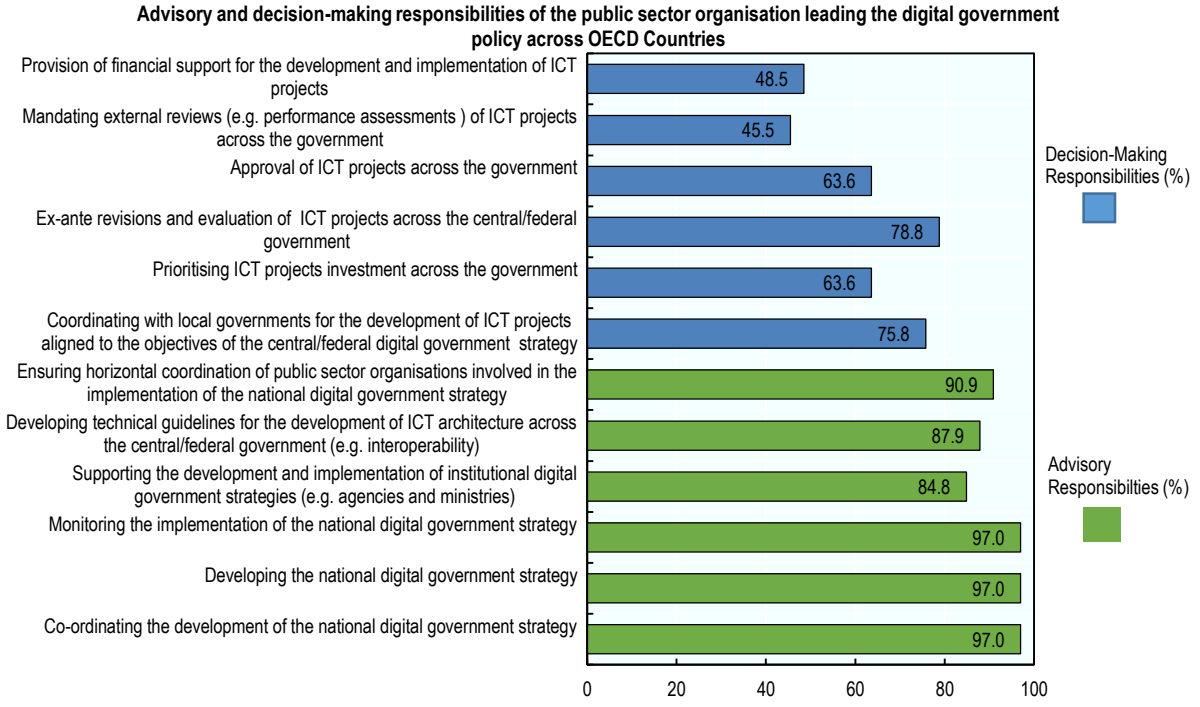
1. maintain and develop government information and services on GOV.UK
2. work towards providing personalised, seamless and intuitive online services and information for users through GOV.UK accounts and towards a digital identity solution
3. build and support common platforms, services, components and tools
4. provide digital, data and technology experts to support government transformation.

GDS builds and maintains several cross-government platforms and tools, including GOV.UK, GOV.UK Verify, GOV.UK Pay, GOV.UK Notify and the Digital Marketplace. It also administers a number of standards, including the Government Service Standard, the Technology Code of Practice and Cabinet Office spend controls for digital and technology.

Source: Danish Ministry of Finance (2021), *Agency for Digitisation website*, https://en.digst.dk/about-us; UK Government (2021), *Government Digital Service website*, https://www.gov.uk/government/organisations/government-digital-service/about.

The majority of countries that participated in the OECD Survey on Digital Government 1.0 declared that their leading institutions had advisory responsibilities that include developing and monitoring the national digital government strategy (97%), ensuring horizontal co-ordination of public sector organisations responsible for the implementation of the strategy (91%) and developing technical guidelines for interoperability across the central/federal government (88%) (see Figure 1.9). These advisory responsibilities are soft policy levers that entitle the leading public sector organisation to make recommendations but not to take action to enforce them. These responsibilities can be effective and sufficient in more horizontal, decentralised and consensus-based administrative cultures. By contrast, decision-making responsibilities, understood as hard policy levers that can better enforce the implementation of the digital government policy, are typically observed in more centralised and hierarchical administrative cultures. Among the countries that answered the OECD Survey on Digital Government 1.0, 79% of public sector organisations leading the digital government policy are responsible for ex-ante revision and evaluation of ICT projects across the administration and 64% for approval of ICT projects and prioritising ICT investments across the government. Nevertheless, less than half of the countries that answered the survey declared that their leading public sector organisation provides financial support (49%) and requests external reviews for ICT projects across the public sector (46%) (see Figure 1.9) (OECD, 2020[15]).

Figure 1.9. Responsibilities of the public sector organisation leading the digital government policy in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Questions 59a and 59b "What are the main advisory responsibilities of this public sector organisation", http://dx.doi.org/10.1787/4de9f5bb-en.

The role of the Ministry of Public Administration in Slovenia

The Slovenian government is composed of 14 ministries covering different areas of work. Each ministry is led by a minister and typically one or more secretaries of state. The Ministry of Public Administration (MPA) is responsible for leading the digital government policy, securing cross-sector and cross-level co-ordination in the country's public sector in this policy field. The mandate of the MPA is naturally much broader, covering areas related to public sector organisation and functioning, public sector employee system, wages, and cross-cutting administrative management. Improving the quality of public administration in collaboration with other line ministries is one of its main functions (Republic of Slovenia, 2021[33]).

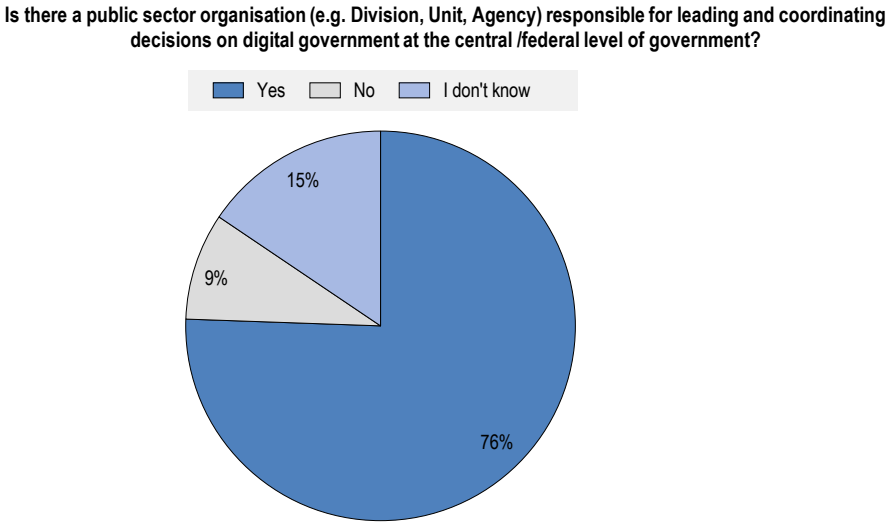
With a minister and two secretaries of state, the MPA functions as a co-ordinating ministry since its cross-cutting mandate on public administration affairs provides a government status that can be considered beyond the mandate of other line ministries. Its different responsibilities include, among others, ensuring transparency and integrity in the public sector, reducing administrative burdens, managing public procurement, as well as co-ordinating local governments. The creation and provision of support for the development of digital services are also underlined by its mission statement.

Within the ministry, the Directorate of Informatics is responsible for the broad policy co-ordination and implementation of public sector digitalisation. The directorate is led by a director general that responds to one of the two secretaries of state of the MPA. The Directorate of Informatics leads some of the most emblematic and structural digital government projects and initiatives in the country, such as the

interoperability policies and guidelines, digital identity, emblematic digital services and applications, cloud frameworks, data management policy in the public sector, digital talent and skills, and digital security (see Chapters 3, 4 and 5).

During the OECD fact-finding mission to Ljubljana in October 2019 and during several virtual workshops and events in 2020 and 2021 with different stakeholders related with the current OECD review, the leadership of the MPA and the role of its Directorate of Informatics regarding the national digital government policy was consensually recognised across the different stakeholders involved. This consensus was also observed in the OECD Digital Government Survey of Slovenia, where 78% of public sector institutions recognised this leadership role of the ministry; only 15% did not recognise the existence of a public sector institution leading digital government in the country (Figure 1.10) (OECD, 2020[34]).

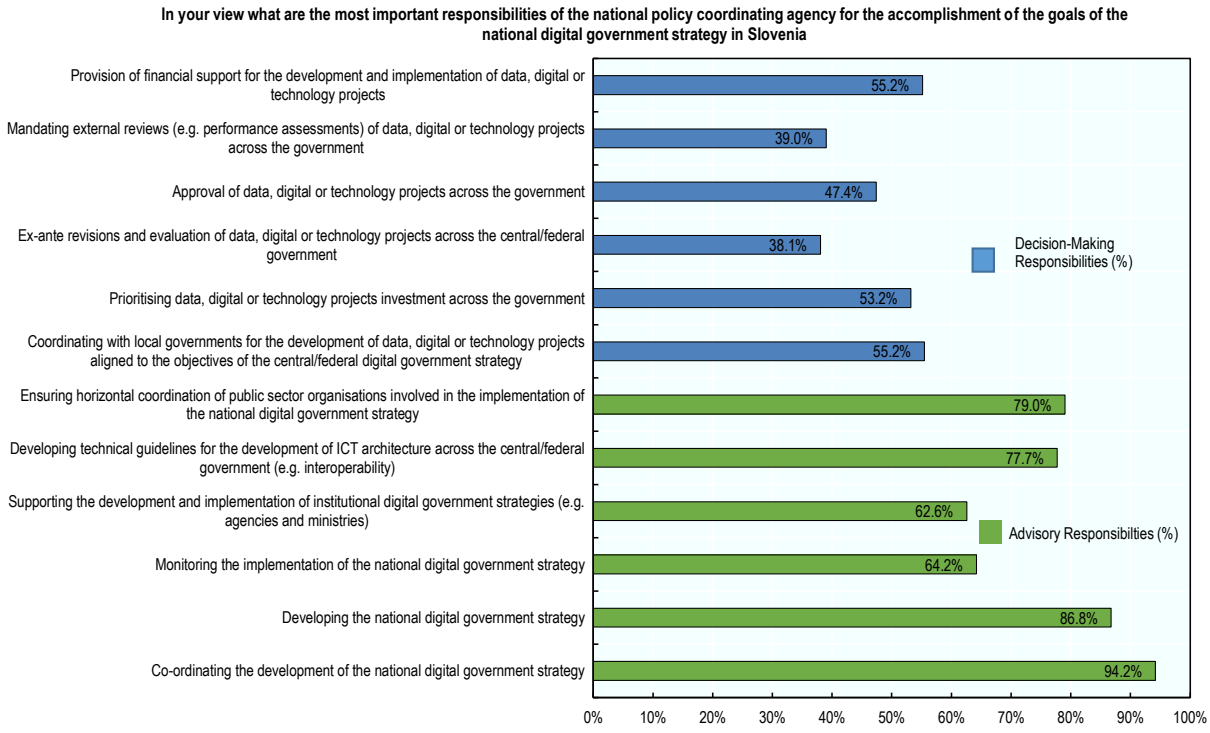
Figure 1.10. Recognition of a public sector organisation leading digital government in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 4a "Is there a public sector organisation (e.g. Division, Unit, Agency) responsible for leading and coordinating decisions on digital government at the central /federal level of government?".

Figure 1.11 provides an insightful panorama on how Slovenian public sector institutions understand the leading role of the MPA and its Directorate of Informatics. The highest scores are observed in advisory responsibilities such as the co-ordination of the national digital government strategy (94%), ensuring horizontal co-ordination across public sector organisations (79%) and developing technical guidelines (78%). Decision-making responsibilities such as the provision of financial support (55%), prioritising data, digital and technology investments (53%) and approval of these projects across the public sector (47%) have substantially lower scores.

Figure 1.11. Responsibilities of the public sector organisation leading the digital government policy in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 4c "In your view what are the most important responsibilities of the national policy coordinating agency for the accomplishment of the goals of the national digital government strategy in Slovenia?".

In discussions with the various stakeholders during the fact-finding mission, a broad consensus was found on the importance of reinforcing the mandate and policy levers that can enable the MPA and its Directorate of Informatics to better govern the digital government policy in Slovenia (see Chapter 2). Reinforcing the decision-making responsibilities would enable empowered co-ordination across the different sectors and levels of government that would sustain more coherent and sustainable policy approaches. Consistent and high-level political support is also necessary to co-ordinate efforts across different line ministries and make the digital government ecosystem more resilient to changes in political cycles. More than a policy area that belongs to MPA or to its minister and/or secretary of state, the digital transformation of the public sector policy needs to be understood as a shared and jointly co-owned imperative among its different stakeholders.

Reinforced institutional empowerment, political support and high-level visibility of the role of Director General of Informatics could also contribute to underlining the strategic importance of an advanced and mature digital government policy in Slovenia. The director general should be considered the champion and leader of the digital transformation of the public sector. Selecting the right profile for this position, can help ensure that beyond their IT background, the Director General of Informatics is seen and acknowledged as a visionary leader that is critical to consult and follow in all strategic policy decisions where digital transformation is a relevant variable.

In order to improve citizens' well-being and sustain economic development and sustainability, the Government of Slovenia should reinforce its vision as well as its analytical and systems thinking about the role of digital technologies and data. Strengthening the mandate and increasing the policy levers of the

MPA's Directorate of Informatics would improve leadership's ability to embrace and enhance the digital disruptiveness underway.

In the summer of 2021, a new Government Office for Digital Transformation was established, accompanied by a new dedicated Minister for Digital Transformation. This new organisation is hoped to be an important ally for the MPA is delivering on the promise of digital transformation within the public sector. At the time of writing the allocation of work, responsibilities and resources between the MPA and the new Government Office were still being established but as Slovenia moves forward with its digital transformation agenda the relationship between these two organisations will be essential in ensuring continuity and clarity for the overall direction of digital transformation as well as initiatives such as digital identity, interoperability and service design and delivery.

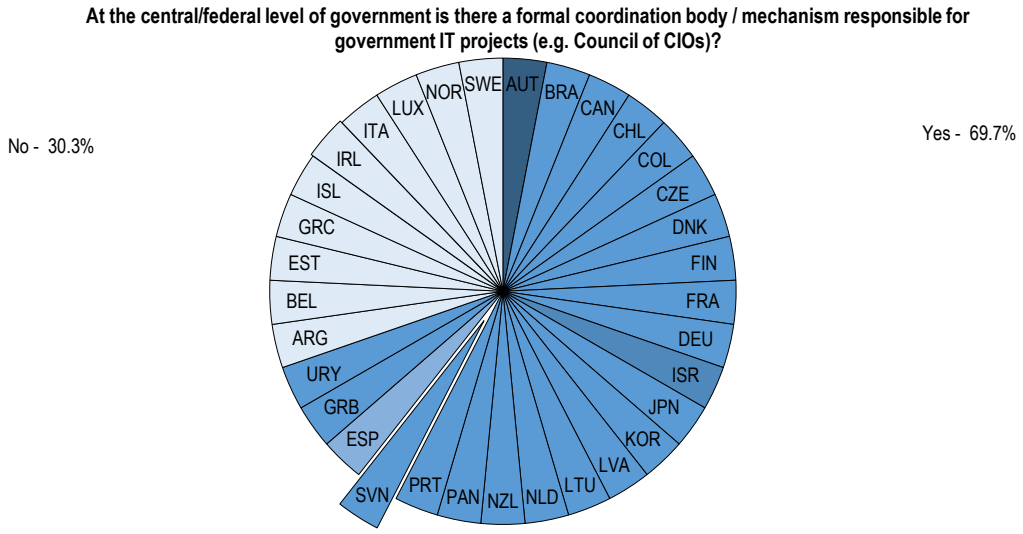
Co-ordination and compliance

A co-operative and collaborative culture across the public sector is fundamental to securing appropriate policy co-ordination mechanisms for coherent policy design, development, delivery and monitoring. Institutional co-ordination helps to avoid siloed policy action, to prevent policy gaps and mismatches, to encourage the interchange of opinions, mobility of skills and sharing practices, and to enable synergies between public sector stakeholders. Sound institutional co-ordination also supports a shift from agency-thinking and government-centred methods to systems-thinking approaches in policy making and implementation capable of being synchronised with the expectations and needs of citizens and businesses (OECD, forthcoming[24]).

In line with the *OECD Recommendation of the Council on Digital Government Strategies* (OECD, 2014[32]) and the diverse experiences and practices of OECD member and several non-member countries, successful co-ordination approaches typically rely on two stages of co-operation: a high-level co-operation and management, putting together ministers or secretaries of state, and ensuring extensive collaboration and supervision of the digital government strategy. Alongside this high-level co-operation, an organisational and technical co-operation system is also needed to address execution difficulties and bottlenecks (OECD, 2016[36]).

When questioned through the OECD Digital Government Survey, almost 70% of countries confirmed having a formal co-ordinating body/mechanism responsible for government IT projects (e.g. Council of CIOs). Although other mechanisms of co-ordination are certainly effective, it is nonetheless important to flag that 30% of countries that answered the survey do not have this kind of institutional mechanism in place (Figure 1.12) (OECD, 2020[15]). Considering that the lack of institutional co-ordination is one of the most highlighted challenges of digital government policies at national level, such a percentage can be considered a number beyond reasonable expectations.

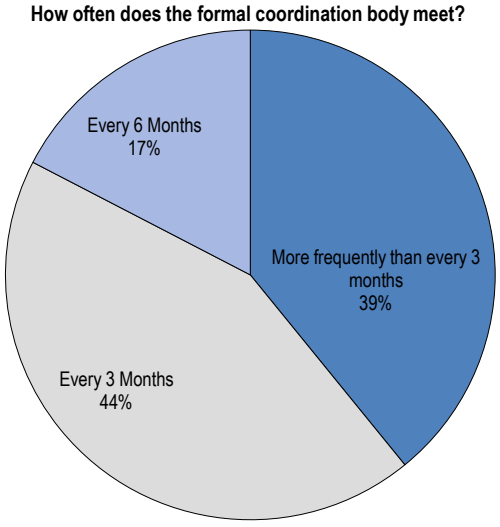
Figure 1.12. Existence of a co-ordination body of digital government in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Question 60. "At the central/federal level of government is there a formal coordination body / mechanism responsible for government IT projects (e.g. Council of CIOs)?", http://dx.doi.org/10.1787/4de9f5bb-en.

On the positive side, the regularity of meetings of the co-ordination bodies is generally high. Thirty-nine percent of the countries that declared the existence of such a body in their national context confirmed that the meetings take place more frequently than every three months, and 44% confirmed meetings every three months (Figure 1.13). Considering the importance, intensity and fast evolution of most policy topics related to the digital transformation underway, a high level of regularity of a co-ordination body's meetings demonstrates the effort and commitment of central government stakeholders towards the digitalisation of its public sector.

Figure 1.13. Meeting regularity of the co-ordination body in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Question 60a. "How often does this body and/or mechanism meet",http://dx.doi.org/10.1787/4de9f5bb-en.

In Slovenia, the Governmental Council of Informatics Development in Public Administration, led by the MPA and composed of secretaries of state of of the most relevant ministeries and other public institutions, is the government highest decision-making authority responsible for the digital government policy (OECD, 2019[6]). The Council has a threefold structure that, with different levels of mandates and political seniority of the stakeholders involved, allows an important distribution of co-ordination responsibilities across the different sectors of government (Table 1.3). Provided that the distinction of roles is clear, the existence of co-ordination at minister, secretary of state and director general levels is also an important mechanism to maintain the involvement, ownership and responsibility of different stakeholders and improve policy coherence and sustainability.

Table 1.3. Governmental Council of Informatics Development in Public Administration

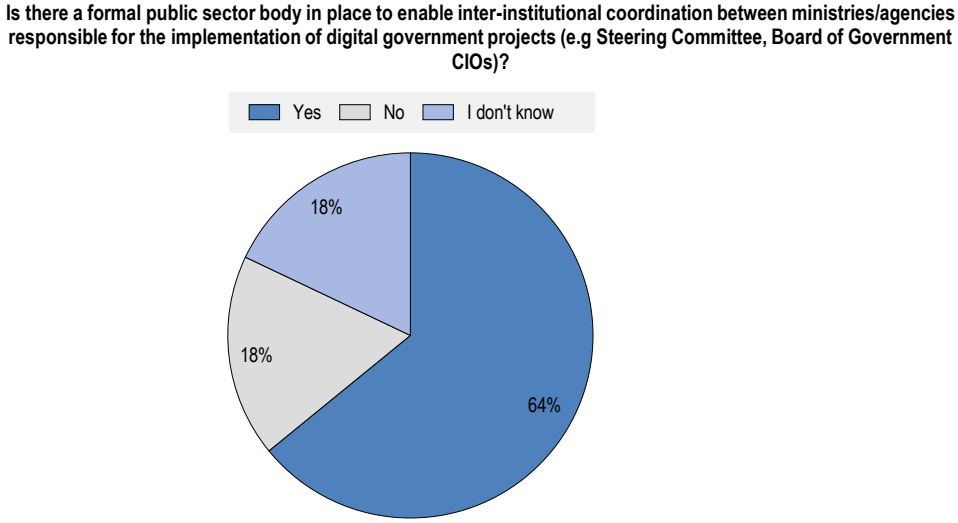
Strategic Council	Led by the Minister of Public Administration, the council is responsible for co-ordination and control of deployment of digital technologies in the public sector, review and approval of the strategic orientations, confirmation of action plans and other operational documents, and validation of projects of line ministries above a certain threshold.
Coordination Working Group	Led by the Secretary of State of the Ministry of Public Administration, this group is responsible for the preparation of proposals and action plans and for the co-ordination as well as compliance of digital government measures in line ministries and other public sector organisations.
Operational Working Group	Led by the director of the Directorate of Informatics, the Operational Working Group is responsible for the implementation of activities, the preparation and implementation of operational documents, and work reports based on action plans. It provides its consent to line ministries and government services for all projects and activities that result in the acquisition, maintenance, or development of IT equipment and solutions.

Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Answer from Slovenia

The Governmental Council of Informatics Development in Public Administration is a central mechanism in the country to steer the digital government policy, maintaining the involvement and commitment of the different stakeholders involved. In line with the responsibilities presented in Table 1.3, the Council is responsible, for instance, for the review and approval of digital projects in the public sector above the threshold of EUR 20 000 (see Chapter 2. This mechanism of pre-approval is an important policy lever to secure a coherent implementation of the digital government policy across the different sectors and levels of government).

The level of acknowledgement of the existence of the Governmental Council of Informatics Development in Public Administration among the Slovenian public sector stakeholders is substantively high. Sixty-four percent of Slovenian public sector institutions that participated in the OECD Digital Government Survey of Slovenia reported the existence of the Council (Figure 1.14) (OECD, 2020[34]). During the fact-finding mission in Ljubljana in October 2019, the stakeholders interviewed by the OECD team constantly mentioned the Council as the central mechanism of policy co-ordination among different sectors of government. For improved collaboration, shared goals and the definition of priorities, as well as the adoption of joint processes and guidelines, the Council was frequently referred to as a critical consensus-building instrument to overcome siloed approaches and reinforce systems thinking in the Slovenian public sector.

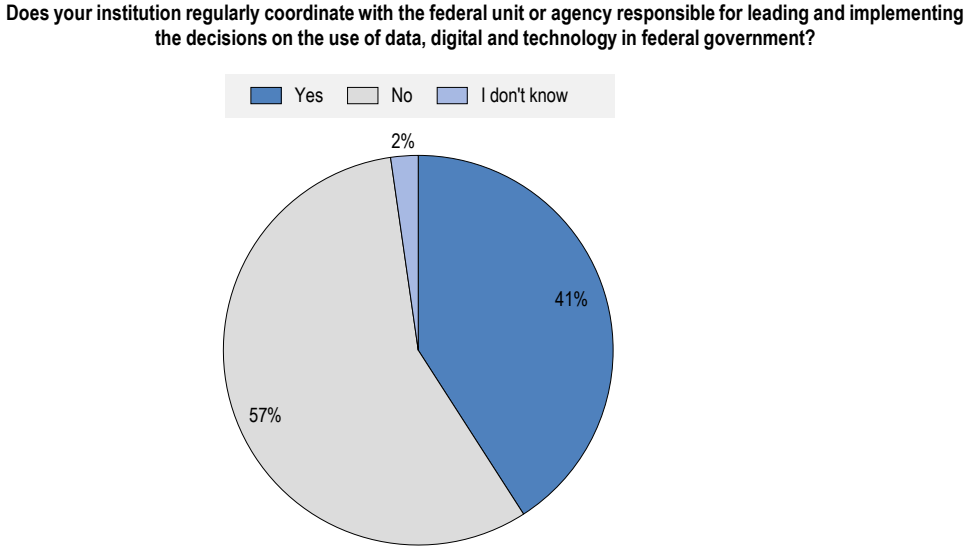
Figure 1.14. Existence of public sector body to enable digital government co-ordination in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 6 "Is there a formal public sector body in place to enable inter-institutional coordination between ministries/agencies responsible for the implementation of digital government projects (e.g Steering Committee, Board of Government CIOs)?".

Despite the interesting structure and the high level of acknowledgement among the Slovenian ecosystem of digital government stakeholders, the absence of Strategic Council meetings from April 2018 until the writing of the current report is the biggest limitation identified in the Slovenian governance of digital government. In the OECD survey, lack of horizontal co-ordination was the most commonly raised challenge by Slovenian public sector institutions for improved consistency in the digitalisation of the public sector. When questioned about policy co-ordination with the unit or agency responsible for leading the digital government policy, the majority of Slovenian public sector institutions that answered the survey declared not organising meetings regularly (Figure 1.15) (OECD, 2020[34]). This lack of regular coordination meetings for the definition of common goals, synchronised policy implementation and even improved knowledge sharing challenges the consistency of the policy efforts underway to digitise the country's public sector.

Figure 1.15. Co-ordination regularity with the public sector organisation leading digital government in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 5 "Does your institution regularly coordinate with the federal unit or agency responsible for leading and implementing the decisions on the use of data, digital and technology in federal government?"

Securing the functioning of the existing horizontal co-ordination mechanisms would reinforce the coherent implementation of the digital government policy. During the drafting of this report, the Government of Slovenia launched a new council, the Strategic Council for Digitalisation in the Office of the Prime Minister, mobilising public, private and civil society stakeholders. This council has the immediate and specific purpose of discussing and preparing proposals that can boost the country's performance in the current digital transformation context. In this sense, six working groups were set up to focus on the following topics: 1) public administration and the digital society, 2) health, 3) digitalisation of education, 4) economy and the business environment, 5) new technologies, and 6) digital diplomacy. This initiative reflects the Slovenian government's efforts and commitment to embrace an open, inclusive and collaborative process in the development of digital transformation policies.

During the drafting of the current report, the OECD team was also informed that the reactivation of the Governmental Council of Informatics Development in Public Administration was being discussed and is foreseen for the upcoming months. This reactivation can be an opportunity to rethink its design and functioning. For instance, instead of the current threefold structure, the Slovenian government could consider a twofold approach based on a high-level policy definition body bringing together ministers and/or secretaries of state and a technical co-operation body constituted at director general level more focused on implementation-oriented topics. Such a twofold approach could bring additional agility and simplicity for digital government co-ordination in Slovenia. Reinforcing the collaboration of the Council with civil society stakeholders, through open meetings, frequent consultation and joint policy development, should also be considered to improve the alignment of the digital government policy with the expectations and needs of the civil society ecosystem of stakeholders.

2 Policy levers to lead the digital transformation

In line with Pillar 3 of the OECD Recommendation of the Council on Digital Government Strategies, this chapter analyses and discusses the policy levers necessary for improved digital maturity of the Slovenian public sector. It starts by focusing on the national digital government strategy, its relevance for the digital government stakeholders and the model followed for its development. The second section of the chapter concentrates on management tools such as business cases, standardised project management, ICT commissioning, and financial measures and mechanisms in place. A section dedicated to the legal and regulatory framework and digital rights closes the chapter.

Introduction

Chapter 1 has highlighted that overall political support and commitment for digital government, coupled to an empowered public sector organisation to steer and lead the agenda that is supported by institutional co-ordination mechanisms are critical for strong and resilient governance of digital government. To take this governance into effective and efficient implementation requires tools that guide, align and enforce coherent and sustainable efforts across the public sector (OECD, 2016[36]). The OECD E-Leaders Handbook on the Governance of Digital Government (forthcoming[24]) identifies policy levers – soft or hard – as suitable tools to support governments in achieving system-wide change. These policy levers can be powerful in promoting the use of key enablers across the administration (such as those discussed in Chapter 4 that include digital identity, interoperability or standards and guidance) and securing the proper monitoring and impact assessment of policy efforts to boost public sector digital maturity.

This Chapter provides an assessment of Slovenia based on the third facet of the OECD Framework on the Governance of Digital Government – policy levers – that examines four dimensions: 1) strategy, 2) project management tools, 3) financial management mechanisms, and 4) legal and regulatory frameworks (OECD, forthcoming[24]) (Figure 2.1). The first section is dedicated to analysing the digital government strategy in Slovenia, the model used for its design and its relevance to the ecosystem of stakeholders. A second section centres the analysis on relevant management tools and financial mechanisms such as business cases, project management standards, information and communications technology (ICT) procurement and digital government investments. A third and last section analyses and discusses the digital government legal and regulatory framework in Slovenia, including the recognition and protection of digital rights.

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

The dimensions and sub-dimensions of Facet 3: Policy Levers

Dimension 3.1 Strategy

- Sub-Dimension 3.1.1 Autonomy and Alignment with other Policy Strategies
- Sub-Dimension 3.1.2 Collaboration and Inclusive Development
- Sub-Dimension 3.1.3 Action Plan and Investment Plan
- Sub-Dimension 3.1.4 Monitoring and Impact Assessment

Dimension 3.2 Project Management Tools

- Sub-Dimension 3.2.1 Value Proposition – Business Cases
- Sub-Dimension 3.2.2 Agile Project Management
- Sub-Dimension 3.2.3 ICT/Digital Procurement

Dimension 3.3 Financial Management Mechanisms

- Sub-Dimension 3.3.1 Budgeting/Budget Threshold
- Sub-Dimension 3.3.2 Co-Funding

Dimension 3.4 Regulations and Standards

- Sub-Dimension 3.4.1 Regulatory Frameworks
- Sub-Dimension 3.4.2 Standards, Principles and Guidelines
- Sub-Dimension 3.4.3 Regulatory Co-operation

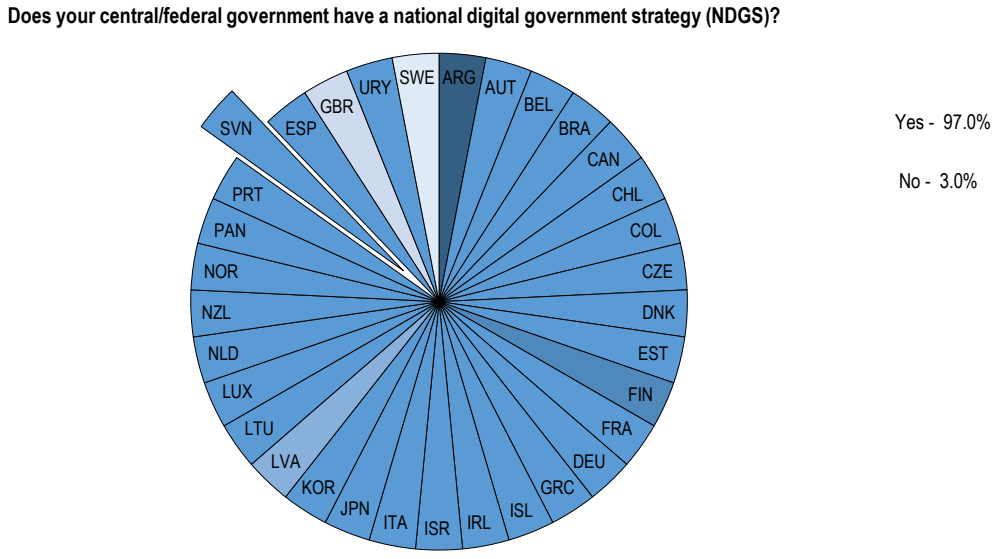
Source: OECD (forthcoming[24]), *E-Leaders Handbook on the Governance of Digital Government*

Strategy

Given the complexity of the machinery of government, a digital government strategy is essential to set the vision, align objectives, define priorities and structures and determine the the lines of action to be adopted across the administration. The strategy should be able to reflect the political agenda in place for the digitalisation of the public sector, mobilising the different sectors and levels of government around common policy purposes. The document should make the necessary bridges with other public governance agendas (e.g. innovation, open government, administrative modernisation, integrity), or broader policy priorities in place (e.g. sustainable development, science and technology, education, wellbeing, climate change and environment) in order to foster policy coherence and a systems-thinking vision, culture and practice across the public sector.

Practically all OECD members countries have a digital government strategy in place that sets the policy objectives for the digital transformation of the public sector (Figure 2.2) (OECD, 2019[37]). Regardless of the name used to describe this document (e.g. strategy, agenda, action plan), or whether it is presented as a stand-alone document or included in broader public sector strategies (e.g. public administration, digital economy, information society) the critical point for governance analysis is that such policy documents exist. More than ambitious statements, these documents set out the vision and frame the national/federal policy around digital government over a given period.

Figure 2.2. Existence of a national digital government strategy in OECD countries



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Source: OECD (2020[15]), *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 Slovenia, two central documents guide the digital government policy:

- ***Digital Slovenia 2020 – Development Strategy for the Information Society until 2020***

  In 2016, the Government of Slovenia launched a long-term strategy for the development of a digital economy and society, representing a "commitment for a faster development of the digital society and the use of opportunities enabled by ICT and the internet for general economic and social

benefits" (Republic of Slovenia, 2016[8]). As a broad national digital economy and society strategy, Digital Slovenia 2020 prioritises topics such as the development of digital infrastructure, increased competitiveness of ICT industry, digital entrepreneurship, strengthened cybersecurity and the advancement of an inclusive information society.

Besides digital society and digital economy-oriented policy streams, the Digital Slovenia 2020 strategy establishes relevant objectives for the public sector in areas such as innovative data-driven services, interoperability standards, open government data, digital rights, digital identity management and ePayments for digital public services.

The strategy reinforces the country's commitment to take advantage of digital transformation underway, prioritising the development of a digital society and the proper context for the deployment of innovative approaches in the use of digital technologies and data. Simultaneously, securing citizens digital rights is embraced as a fundamental requisite to reinforce trust in the public sector (European Commission, 2020[38]).

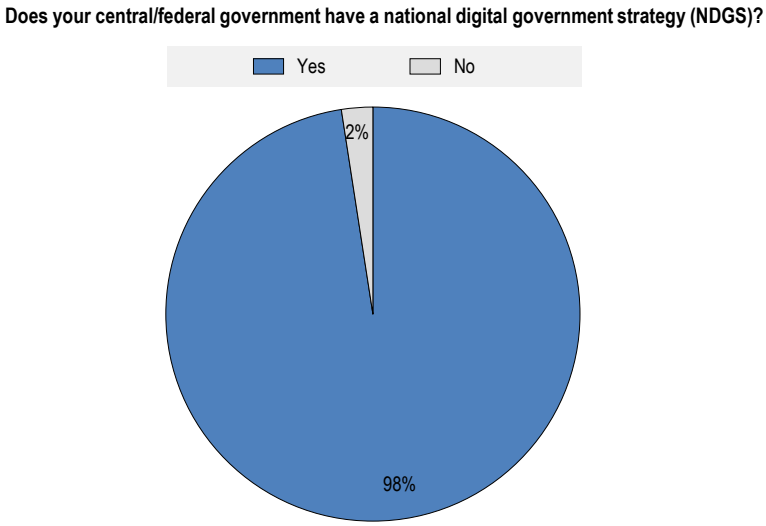
- ***Public Administration 2020, Public Administration Development Strategy 2015–2020***

  With a 2015-20 timeframe, the overall objectives of the strategy focus on quality and efficiency, transparency and responsibility of public administration, as well as activities supporting a higher level of professionalism, innovation and responsibility of civil servants (Ministry of Public Administration, 2015[39]). The strategy underlines the importance of structured policy action in the public sector able to create direct benefits responding to citizens' expectations and needs. The strategy also highlights that strengthening the digital transformation of the public sector will positively influence the achievement of goals in several other policy areas, as well as in the development of a digital economy and society in Slovenia (European Commission, 2020[38]).

  Although digital and data topics can be found across the different chapters of the strategy, the document dedicates a specific section to digital government policy work streams. Critical elements for the digitalisation of the public sector are highlighted, including integrated digital services for citizens and businesses, information technology management, development of common building blocks, digital skills, and fostering the use of technologies such as cloud computing and data analytics across the public sector.

The Digital Slovenia 2020 strategy and the Public Administration Development Strategy 2015–2020 – two complementary documents – make a strong connection between digital government development and the overall digital economy and society, as well as with specific objectives of public sector development in the country. When questioned, the Slovenian stakeholders who participated in the OECD fact-finding mission to Ljubljana in October 2019 and in the OECD Digital Government Survey of Slovenia were able to correctly identify both documents as central policy instruments guiding the digital transformation of the country's public sector policy (Figure 2.3).

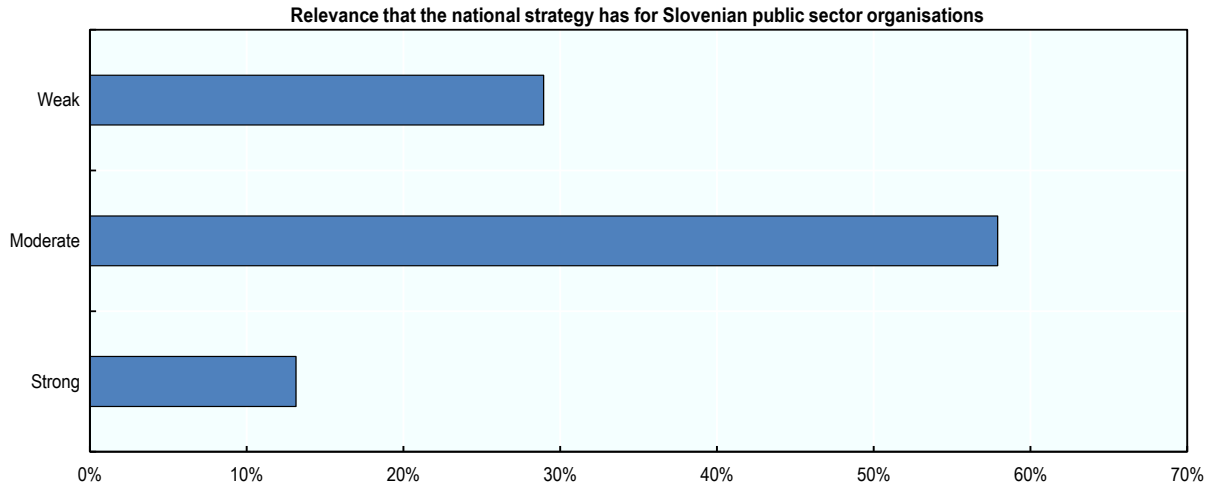
Figure 2.3. Acknowledgment of existence of a national digital government strategy in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 1 "Does your central/federal government have a national digital government strategy?".

However, when asked about the relevance of these strategies, only 13% of the public sector organisations that answered the OECD Digital Government Survey of Slovenia considered it strong from a policy guidance perspective. The vast majority of the surveyed stakeholders considered the relevance moderate (58%), and a surprisingly high percentage considered it weak (29%) (Figure 2.4). Given the relevance of digital technologies and data across all public sector activities, there is substantial room for improving the significance of the digital government strategy for its stakeholders.

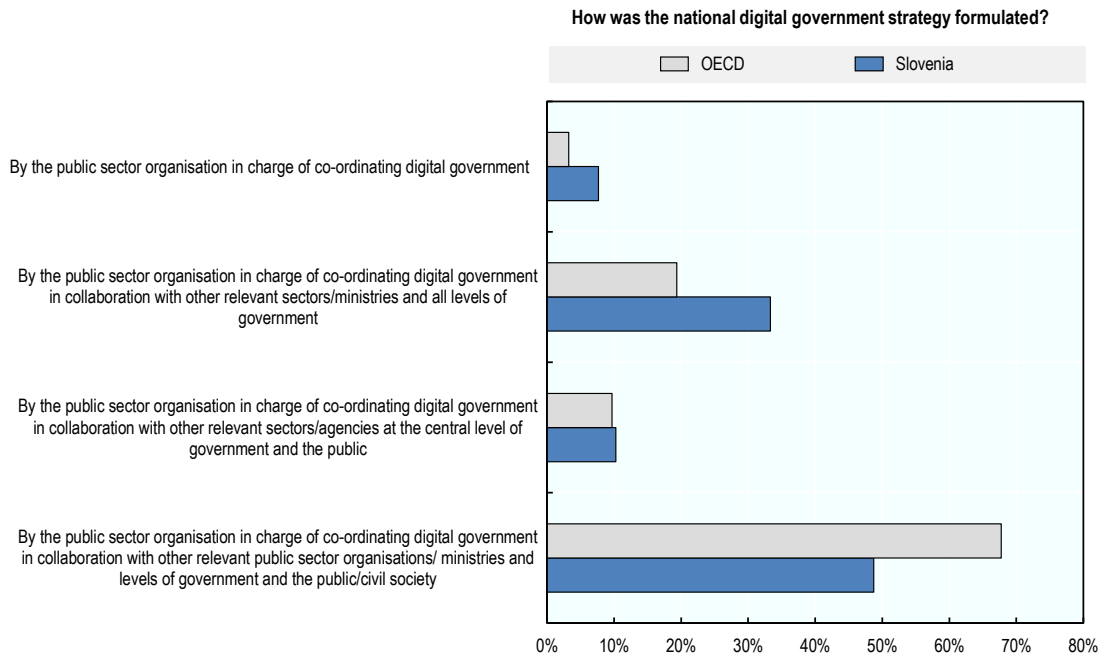
Figure 2.4. Relevance of national digital government strategy to Slovenian public sector organisations



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 1c "Rank the relevance that the national/federal strategy has for your institution (e.g. mandates, alignment and relevance of the federal strategy's goals with your institutional goals, etc.)".

The development model of the national digital government strategy is a critical opportunity to involve the ecosystem of stakeholders in defining and implementing policy. Collaborative approaches to the design of digital government strategies favour joint responsibility and shared ownership across the public, private and civil society sectors involved in its definition. The reported experience of OECD member countries in the broad involvement of the ecosystem of stakeholders is globally positive. Sixty-eight percent of countries that responded to the OECD Survey on Digital Government (OECD, 2020[35]) confirmed that the national digital government strategy was developed by the public sector organisation that leads the digitalisation policy in the public sector, in collaboration with other relevant public sector organisations and levels of government and the public/civil society. In contrast, 19% reported that the strategy was developed without the involvement of public/civil society stakeholders (Figure 2.5).

Figure 2.5. Development model of the national digital government strategies in OECD countries and Slovenia



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* http://dx.doi.org/10.1787/4de9f5bb-en; OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 1b "How was it (national/federal digital government strategy) formulated?".

In Slovenia, the development process of both Digital Slovenia 2020 and the Public Administration Development Strategy 2015–2020 was open and collaborative. According to the OECD Survey on Digital Government, both documents were designed involving the central and local level public sectors organisations, as well as the civil society. A list of diverse active participants in the design of Digital Slovenia 2020 is available publicly, and the Public Administration Development Strategy 2015–2020 benefited from a public consultation process (OECD, 2019[37]). However, when questioned in the OECD Digital Government Survey of Slovenia, only 49% of public sector organisations recognised the full range of stakeholders involved in the development of the digital government strategy (Figure 2.5).

Since both documents were reaching the end of their timeframes during the drafting of this report, the Government of Slovenia was working on a new digital strategy to cover the digital economy, society and

government policies, expected to be launched by the end of 2021. Given the cross-cutting role and range of digitalisation of the public sector policies, as well as the importance of linking digital government objectives with other policy areas, the Slovenian government could consider complementing the strategy with a specific action plan. As an extension of the new strategy, the action plan could allow the digital government policy to be properly framed and detailed, favouring its relevance and the guidance that should be provided to different Slovenian stakeholders.

The design process of the new strategy is also a critical opportunity to involve the different public, private and civil society stakeholders in defining the digital government policy, favouring their engagement in future stages of the policy cycle such as implementation and monitoring. Collaboration from the start is a valuable mechanism to secure that the strategy responds to the expectations and needs of the different stakeholders, allowing simultaneously broad commitment for achieving the different policy goals.

As mentioned in Chapter 1, during the drafting of this report, the Government of Slovenia launched a Strategic Council for Digitalisation in the Office of the Prime Minister, bringing together a wide range of public, private and civil society stakeholders in order to discuss and prepare proposals that can boost the country's performance in the current digital transformation context. This initiative seems a good example of how to ensure that the new digital strategy results from an open, inclusive and collaborative process that will reinforce its applicability and sustainability.

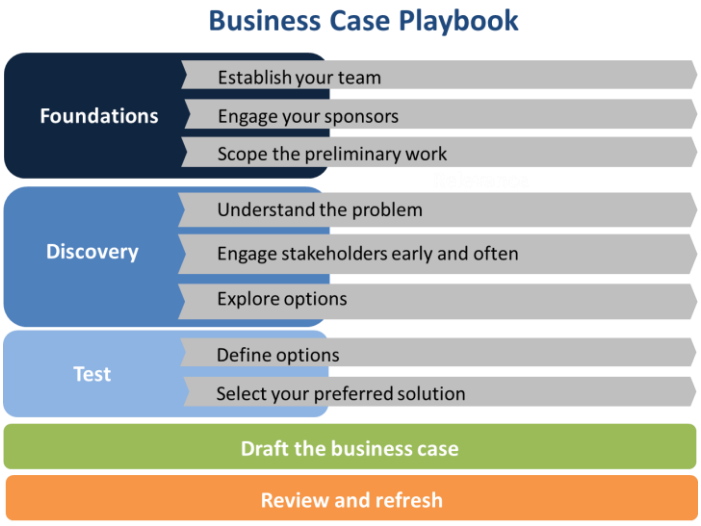
Management tools and financial mechanisms

Coherent investment in digital technologies and the use of common management models across the public sector are critical to optimise efficiency and avoid duplication of efforts and expenditures. The OECD *Recommendation on Digital Government Strategies* (OECD, 2014[32]) provides specific key recommendations underlining the value of business cases, agile project management methodologies and the strategic procurement of digital technologies. These policy levers promote streamlined policy implementation aligned with the digital government strategy in place and enable improved sustainability for initiatives and projects.

Business cases

The use of business case methodologies and approaches for designing digital investments promotes the rationalisation of public financial efforts around the digitalisation of government and contributes decisively to secure better coherence and cohesion in implementing digital government policy. Business cases are able to improve the planning, management and monitoring of digital investments in the public sector (OECD, 2014[32]). Building on the importance attributed to this policy lever by the OECD Working of Senior Digital Government Officials (E-Leaders), a specific thematic group that brought together several OECD members and non-member countries developed a Business Case Playbook setting different plays that government should consider when designing and applying their business case models (Digital Transformation Agency, 2020[40]). Benefiting from the coordination of the Australian Digital Transformation Agency, the playbook highlights fundamentals such as understanding the problem, engaging the sponsors and stakeholders as well as defining options and testing solutions (Figure 2.6).

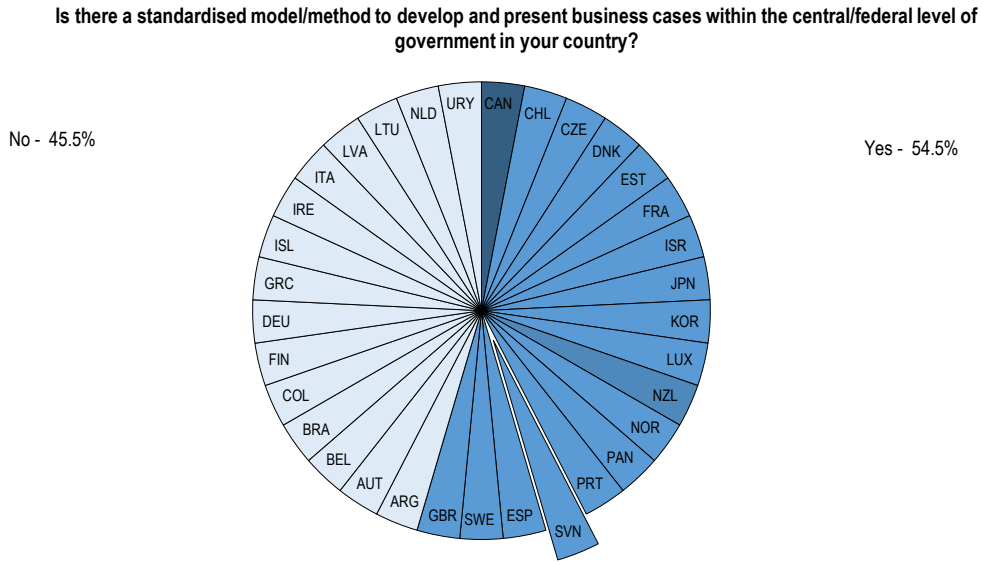
Figure 2.6. Business case playbook - plays



Source: Digital Transformation Agency (2020) *Business case playbook*, available in https://businesscaseplaybook.service.gov.au

Although the OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[41]) underlines the importance of business case methodologies, 45.5% of the countries that answered the OECD Survey on Digital Government declared not having a standardised model/method (Figure 2.7). This high percentage does not mean that business case methodologies for digital projects are not adopted in those countries, just that there is no standardised model and different public sector organisations might use their own models of business cases. Nevertheless, the OECD advocates for a standardised model/method for business cases as a support for improving co-ordination and cohesion of digital investments and acting as an important policy lever for streamlined compliance with national policy goals, technical standards and guidelines for digital government development.

Figure 2.7. Use of business cases in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Question 75 "Is there a standardised model/method to develop and present business cases within the central/federal level of government in your country?", http://dx.doi.org/10.1787/4de9f5bb-en.

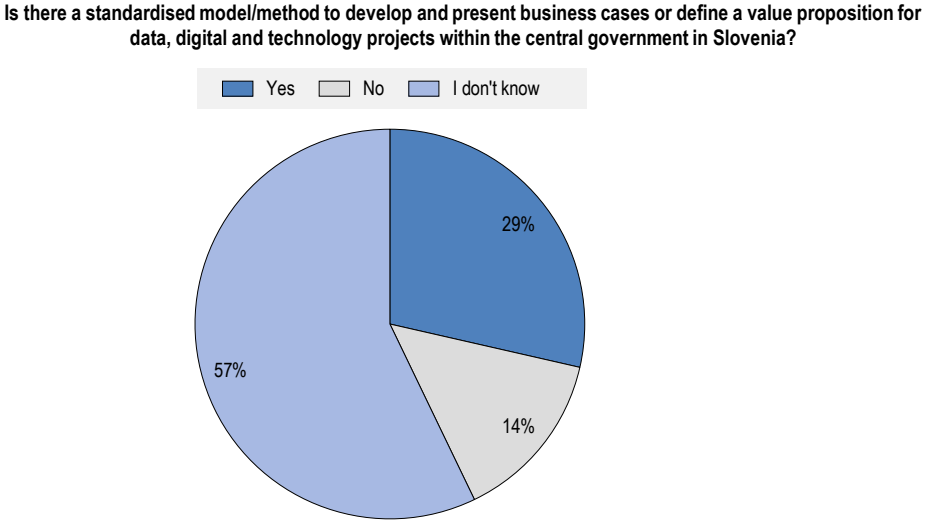
In Slovenia, The Strategic Board of the Governmental Council of Informatics Development in Public Administration, the main digital government steering and co-ordinating body in Slovenia, is responsible for reviewing and giving its consent to all projects above EUR 20 000 (see also section Co-ordination and compliance of Chapter 1 and section Slovenia presents in this sense a considerable level of maturity in the procurement/commissioning of digital services and projects. The guidelines are well connected with different digital government enablers, and the level of acknowledgement and importance attributed by the ecosystem of stakeholders is quite high. Considering the importance of this policy lever for digital government implementation and the new Slovenian digital strategy now being prepared, the Government of Slovenia should consider using the current momentum to update the existing guidelines, properly involving the Slovenian public, private and civil society stakeholders. An updated version would constitute an opportunity to address topics related to emerging technologies to such as data ethics or algorithm transparency. In addition, given policy instruments such as the OECD ICT Commissioning Playbook and the Digital Buying Guide mentioned above, the update of guidelines could help continue the shift towards transformative, iterative and commissioning approaches.

Financial measures and mechanisms of the current chapter). When digital government projects meet this budget threshold then there is an expectation of using a standardised model to develop and present business cases according to a value proposition assessment model. The investment proposals must be aligned with Slovenian public sector guidelines on topics such as digital identity/digital signatures, interoperability framework, cloud computing, the ICT procurement strategy/framework and digital security. This alignment mechanism for all the digital public investments above the threshold allows strategic enforcement of important standards, reinforcing the coherence, cohesion and sustainability of digital government implementation across the different sectors of the Slovenian public administration (OECD, 2019[37]).

The standardised business case model in Slovenia was developed with the participation of the entity leading the digital government policy (Directorate of Informatics of the Ministry of Public Administration), different line ministries and academia and civil society stakeholders. This collaborative approach secures the acknowledgement and alignment of all the stakeholders with the methodology being adopted as well as promoting shared responsibility and joint ownership regarding its implementation (OECD, 2019[37]).

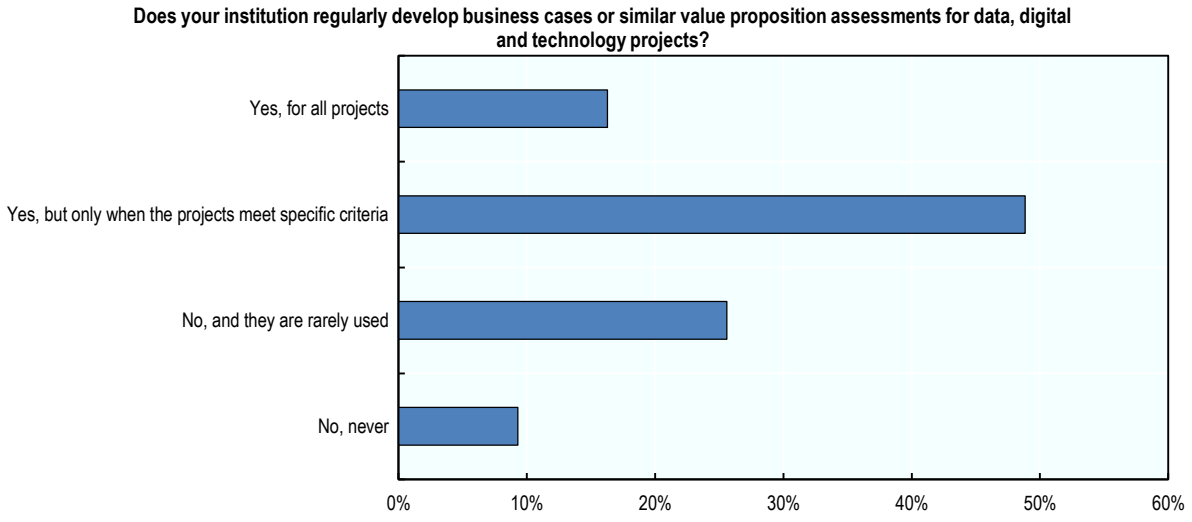
In the OECD Digital Government Survey of Slovenia (OECD, 2020[35]), when questioned about the existence of a standardised model/method to develop and present business cases or define a value proposition for digital investments, 57% of public sector institutions responded positively. Twenty-nine percent answered that they did not know about the existence of this policy lever, and 14% responded negatively (Figure 2.8). Additionally, the survey revealed that 16% of institutions use business cases or similar value propositions in all projects and that 49% use it when projects meet specific criteria. This means that more than one-third (35%) of Slovenian public sector organisations rarely or never use business case approaches (Figure 2.9).

Figure 2.8. Existence of business cases in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 10a "10 a) Is there a standardised model/method to develop and present business cases or define a value proposition for data, digital and technology projects within the central/federal level of government in your country?".

Figure 2.9. Use of business cases by public sector organisations in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 11 "Does your institution regularly develop business cases or similar value proposition assessments for data, digital and technology projects?"

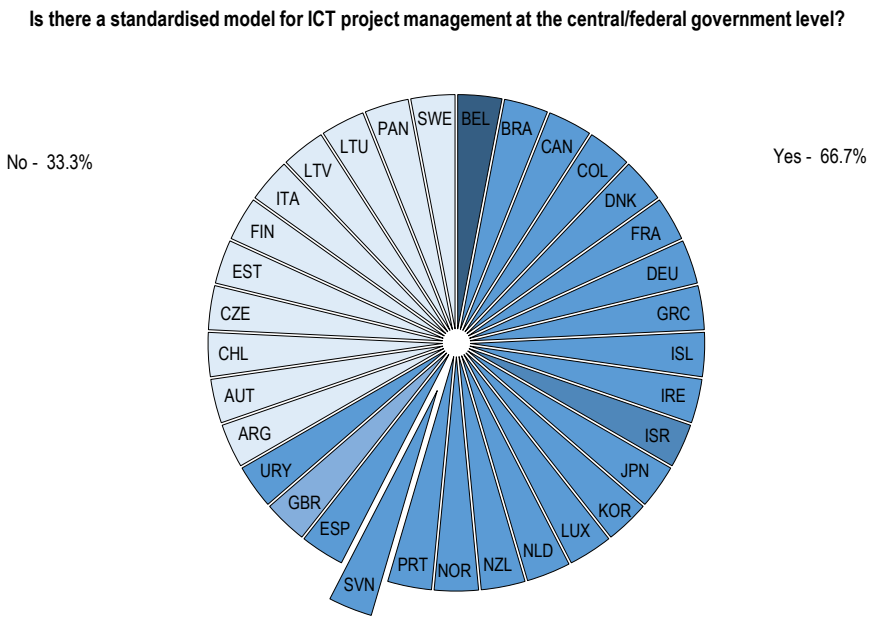
This section has positively underlined the existence and compulsory use of Slovenia's standard business case methodology for approving digital government projects above the threshold of EUR 20 000. It also highlighted the connection of the business case methodology with structural digital government guidelines in areas such as digital identity, interoperability, cloud computing or digital security. However, the analysis noted that there is room for improvement in the level of acknowledgement and adoption of business case approaches. Building on the important knowledge and methodology suggested in the Business Case Playbook (Digital Transformation Agency, 2020[40]) the Government of Slovenia should consider using the momentum offered through preparing a new digital strategy and the reactivation of the Governmental Council of Informatics Development in Public Administration to reinforce the country's approach to this important policy lever. As part of the new strategy, the Slovenian government should consider reemphasising the role of business cases in its implementation and renewing the involvement of stakeholders in any possible updates to the model if deemed appropriate.

Agile project management

Project management tools are critical to secure consistent digital government implementation efforts. Besides being precise in the definition of task and duties, project management approaches help define responsibilities between the different stakeholders involved, whether in terms of design, leadership or supervision of processes. In line with key recommendation 10 of the OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[32]), project management approaches are fundamental for digital government maturity, and their agility is essential to promote efficiency and evidence-based policy making, as well as the capacity of public sectors to quickly monitor, evaluate and iterate based on periodic feedback (OECD, forthcoming[24]). Standardised and agile project management approaches also improve forecasting capacities since they consider all the data collected, and they can be used as a mechanism of accountability and transparency of digital government implementation efforts.

As shown in Figure 2.10, two-thirds of countries that participated in the OECD Digital Government Index have a standardised model for ICT project management. This reflects the importance placed on this policy lever for improving consistency in digital government implementation across the different sectors of public administration.

Figure 2.10. Existence of a standardised model for ICT project management in OECD countries



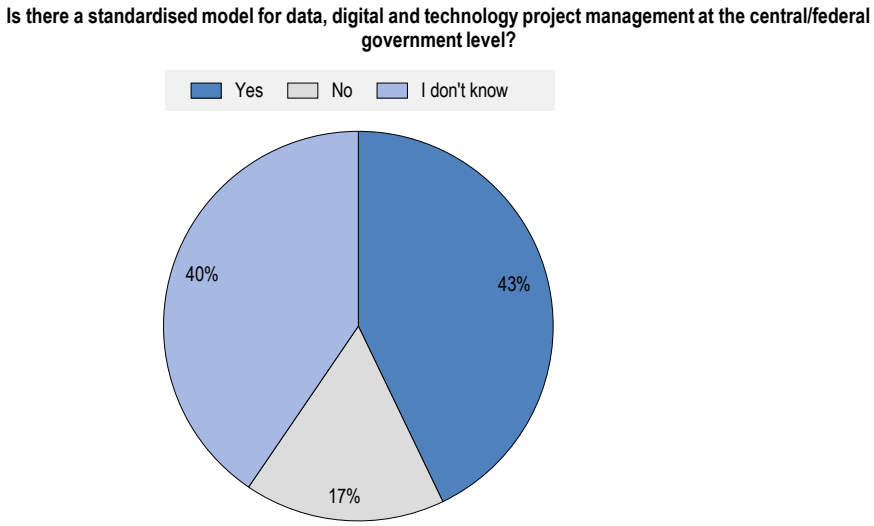
Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results,* Question 80 "Is there a standardised model for ICT project management at the central/federal government level?", http://dx.doi.org/10.1787/4de9f5bb-en.

Slovenia is among those countries. Its public sector organisations are required to use the standardised project management model when digital projects meet the budget threshold of EUR 20 000. The Slovenia Governmental Project Office defines the broad strategic approach and guidelines that all public sector organisations should follow when managing their projects. In addition, a specific methodology for managing digital projects developed by the Ministry of Public Administration is available as a reference for monitoring and evaluation of policy implementation (Ministry of Public Administration, 2016[42]) (OECD, 2019[37]).

The methodology is aligned with critical digital government key enablers, namely in areas such as digital identity, interoperability, data protection and digital security. It is considered by the Governmental Council of Informatics Development in Public Administration for the approval of all the digital government projects above EUR 20 000 (see Chapter 1), demonstrating an important connection between the existing policy tools in Slovenia. This alignment contributes to reinforcing the coherence of public administration efforts on digital projects, allowing improved efficiency and consistency.

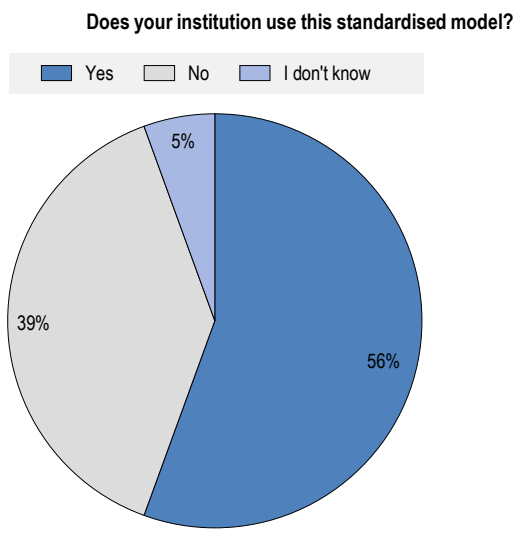
When questioned about a standardised model of project management at central government level, only 43% of Slovenian public sector organisations confirmed its existence, with 40% denying it and 17% answering that they do not know (Figure 2.11). However, of those public sector institutions that acknowledged its existence, only 56% use it. As such, there is a low level of overall adoption for a mandatory and critical policy lever in pursuit of consistent and sustainable digital government implementation (Figure 2.12).

Figure 2.11. Existence of a standardised model for ICT project management in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 11a "Is there a standardised model for data, digital and technology project management at the central/federal government level?".

Figure 2.12. Use of the standardised model of ICT project management in Slovenian public sector organisations



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 12c "Does your institution use this standardised model?"

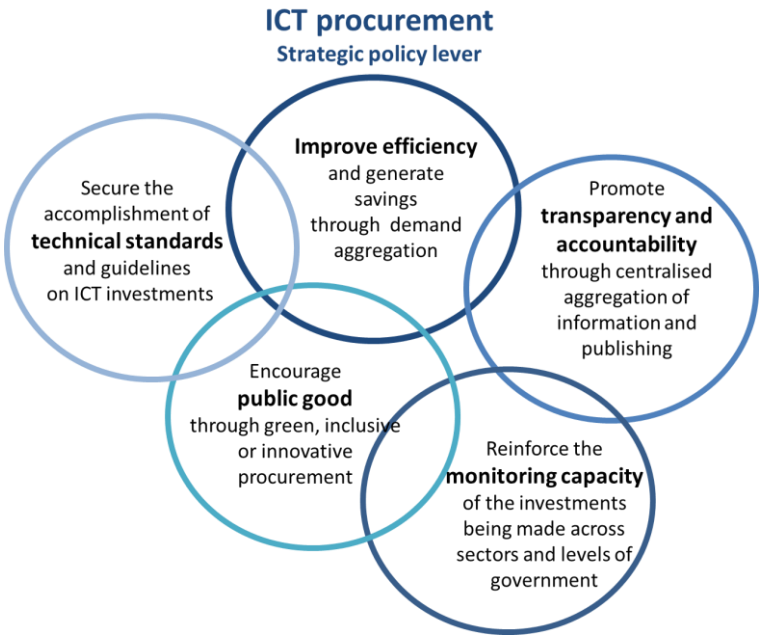
Similar to the assessment made in the previous section on the Slovenian business case approach, the existing project management methodology seems to be well connected to fundamental digital government key enablers (e.g. digital identity, interoperability). Nevertheless, despite being a compulsory tool, the level of acknowledgement of its existence and the level of use are below what would be expected or anticipated in achieving higher digital maturity. For this reason, the Government of Slovenia should use the current momentum of defining the new digital government strategy to update the project management

methodology and involve the ecosystem of digital government stakeholders in order to improve shared ownership of this policy lever. Attributing a new centrality to agile project management in the implementation of the new strategy would also contribute to reinforced co-ordination and compliance across the different sectors and levels of government.

Towards digital commissioning

The OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[41]) underlines in its provision no. 11 the importance of specific and strategic procurement approaches for digital government investments. Considering the fast pace of innovation in digital technologies and data work streams, governments are required to address the acquisition of digital projects with specific approaches that include the necessary agility to secure valuable and quality acquisitions. As illustrated in Figure 2.13, the benefits of coherent and structured approaches to ICT procurement are numerous. A sound ICT procurement policy can allow improved adoption and compliance with national digital standards and guidelines, generate savings through demand aggregation, and contribute decisively towards improved transparency and accountability, allowing policy leaders and implementers to have more structured monitoring of the investments being made and priorities adopted across the public sector. Coherent and structured approaches for ICT procurement are in this sense essential policy levers for digital government maturity.

Figure 2.13. Benefits of coherent and structured approaches to ICT procurement



Source: OECD (2019[43]), *Digital Government Review of Panama.*

The ICT Commissioning Playbook (GDS & OECD, 2019[44])and more the Digital Buying Guide (Government Digital Service, 2020[45]) are based on principles such as understanding the users' needs, guaranteeing agility or embracing openness and transparency, establishing several plays that help governments to embrace procurement of digital projects with transformative-driven approaches embedded in a commissioning mindset.

Box 2.1. Digital Buying Guide

Building on the work of the Thematic Group on ICT Commissioning and its ICT Commissioning Playbook, the UK Government Digital Service developed a Digital Buying Guide in 2020. The guide is divided into the four central dimensions of the buying lifecycle, providing practical advice on acquiring digital government products and services:

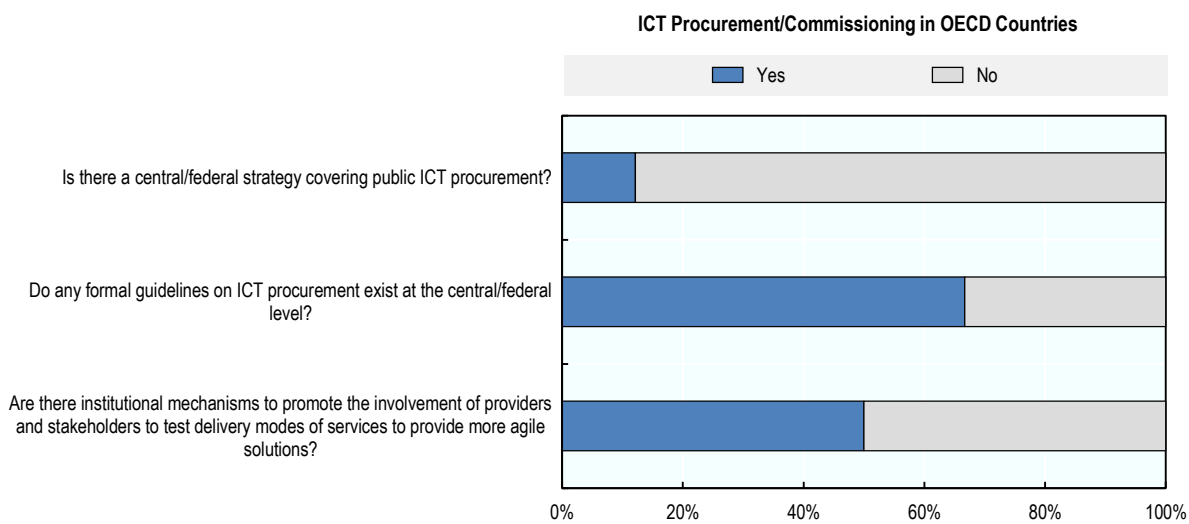
5. **Plan** – Plan your procurement strategy, exploring different solutions with users and suppliers.
6. **Inform the market** – Share what you need with the market, encouraging open competition.
7. **Evaluate and award** – Evaluate suppliers using clear and objective criteria, and select a winner.
8. **Manage delivery** – Ensure that projects run smoothly by working with your supplier.

The guide was developed with the support of the UK Foreign, Commonwealth and Development Office, the OECD, the International Telecommunication Union and United for Smart Sustainable Cities.

Source: Government Digital Service (2020[45]),*Digital Buying Guide*, www.digitalbuyingguide.org/en/.

OECD countries have varied policy approaches towards ICT procurement and commissioning, reflecting their institutional cultures. Nevertheless, there appears to be consistency between policy instruments to secure coherency and sustainability of the procurement of digital projects and services across federal/national public sectors. According to the OECD Survey on Digital Government, only a minority of countries (12%) have a central/federal strategy covering ICT procurement but the vast majority (67%), use formal guidelines on ICT procurement to promote coherency and sustainability of policy implementation (Figure 2.14).

Figure 2.14. ICT procurement/commissioning in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602

Source: OECD (2020[15]), *Digital Government Index: 2019 results*, Question 87 "Is there a central/federal strategy covering public ICT procurement?", Question 88. "Do any formal guidelines on ICT procurement exist at the central/federal level?" and Question 89. "Are there institutional mechanisms to promote the involvement of providers and stakeholders to test delivery modes of services to provide more agile solutions?", http://dx.doi.org/10.1787/4de9f5bb-en. .

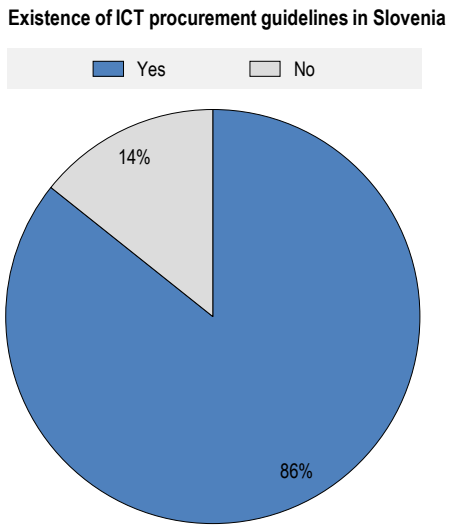
Concerning the involvement of providers and stakeholders through collaborative approaches in the broad procurement of digital products and services, the experience among OECD countries is polarised. Fifty percent of the countries confirmed the existence of institutional mechanisms that promote such involvement, while the other half responded negatively (Figure 2.14). Since the involvement of providers and stakeholders is an important indicator of openness and agility in the ICT procurement policy, as it demonstrates the commissioning mindset that can contribute towards greater digital government maturity, considerable space for improvement remains in the overall OECD countries' approaches.

Slovenia does not have a central strategy specifically ICT procurement. Procurement for the overall public sector is addressed in the Public Administration Development Strategy 2015–2020. In addition and more specifically, the country has the guidelines for public procurement of digital solutions. The Ministry of Public Administration is the entity responsible for overseeing and promoting its compliance across the public sector (Ministry of Public Administration, 2017[46]). The guidelines cover relevant topics such as insource vs. outsource development and private sector cloud vs. government cloud, providing important instructions to digital government stakeholders on how to decide on the different options available.

In line with the business case model and the project management methodology analysed in the previous sections of the current chapter, these procurement guidelines are aligned with important digital government key enablers: sharing of government data, privacy and data protection, digital identity/digital signatures, interoperability framework, cloud computing framework, digital security and open source adoption (OECD, 2019[37]). This alignment of different policy instruments is critical to secure consistency in digital government investments.

The level of acknowledgement of the existence of ICT procurement guidelines among the Slovenian stakeholders is very high. Eighty-six percent of public sector organisations that participated in the OECD Digital Government Survey of Slovenia were aware of its existence (Figure 2.15). During the OECD fact-finding mission to Ljubljana, the ICT procurement guidelines were frequently mentioned by the interviewed stakeholders as a central co-ordination mechanism to secure coherent and sustainable policy implementation.

Figure 2.15. Existence of ICT procurement guidelines in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 14) Do any formal guidelines on ICT procurement exist at the central/federal level?"

Slovenia presents in this sense a considerable level of maturity in the procurement/commissioning of digital services and projects. The guidelines are well connected with different digital government enablers, and the level of acknowledgement and importance attributed by the ecosystem of stakeholders is quite high. Considering the importance of this policy lever for digital government implementation and the new Slovenian digital strategy now being prepared, the Government of Slovenia should consider using the current momentum to update the existing guidelines, properly involving the Slovenian public, private and civil society stakeholders. An updated version would constitute an opportunity to address topics related to emerging technologies to such as data ethics or algorithm transparency. In addition, given policy instruments such as the OECD ICT Commissioning Playbook and the Digital Buying Guide mentioned above, the update of guidelines could help continue the shift towards transformative, iterative and commissioning approaches.

Financial measures and mechanisms

Institutional frameworks for the allocation of financial resources that can promote and secure policy implementation are also important policy levers that governments can use to support digital government development. It is valuable for the public sector institution with responsibility for the digital government policy of the country to be able to influence national budget priorities in order to guarantee the coherent implementation of public sector digitalisation. Moreover, the existence of a budget threshold determining that, above a certain financial value, digital government expenses need to be centrally pre-evaluated is a clear instrument for securing efficient and strategic use of existing resources and coherently bringing public sector policy actions into line with overarching priorities. Funding or co-funding mechanisms to support digital government initiatives and projects in different sectors and levels of government can also support coherent and efficient policy implementation, simultaneously assuring the dissemination of standards and key enablers that act as building blocks for a cohesive digitalisation of the public sector.

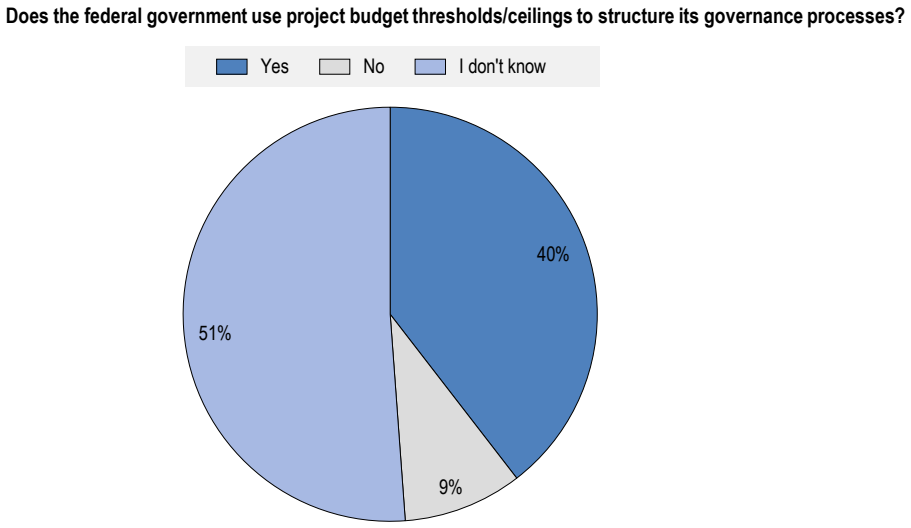
The experience of OECD countries varies considerably regarding the existence of such financial measures and mechanisms. Nevertheless, there is a common acknowledgement across the members of the Working Party of Senior Digital Government Officials (E-Leaders) that these kinds of hard policy levers can play a decisive role in the strategic promotion, effective enforcement and cross-cutting monitoring of policy implementation.

In Slovenia, the most relevant financial mechanism is the budget threshold for digital government investments above EUR 20 000. All public sector organisations that need services or goods above that amount must have their investments pre-evaluated and cleared by the Strategic Board of the Governmental Council of Informatics Development in Public Administration of the Republic of Slovenia (see Chapter 1). As the main digital government co-ordination body, the board reviews and gives its consent based namely on the compliance with the existing business case model and project management methodology, as well as the alignment with the ICT procurement guidelines (see sections on Business cases, Agile project management and Similar to the assessment made in the previous section on the Slovenian business case approach, the existing project management methodology seems to be well connected to fundamental digital government key enablers (e.g. digital identity, interoperability). Nevertheless, despite being a compulsory tool, the level of acknowledgement of its existence and the level of use are below what would be expected or anticipated in achieving higher digital maturity. For this reason, the Government of Slovenia should use the current momentum of defining the new digital government strategy to update the project management methodology and involve the ecosystem of digital government stakeholders in order to improve shared ownership of this policy lever. Attributing a new centrality to agile project management in the implementation of the new strategy would also contribute to reinforced co-ordination and compliance across the different sectors and levels of government.

Towards digital commissioning). The existing budget threshold functions in this sense as an important policy lever for improved co-ordination and compliance for digital government implementation across the different sectors of the administration.

Since the Strategic Council has not met since April 2018 and the writing of the current report, the pre-evaluation process has been handled directly by the Directorate of Informatics of the Ministry of Public Administration. Although the application of this policy lever is essential, the digital government stakeholders interviewed during the fact-finding mission to Slovenia in October 2019 recognised that its effectiveness and legitimacy had been clearly affected in recent years due to the Strategic Council not having met. In fact, possibly reflecting the decrease in the use of this mechanism during the past years only 40% of public sector institutions involved in the Digital Government Survey of Slovenia acknowledged its existence (Figure 2.16).

Figure 2.16. Budget threshold for digital government investments in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 9 "Does the federal government use project budget thresholds/ceilings to structure its governance processes. For example, if certain procedures apply to projects for certain budget ranges."

The existing budget threshold is an important tool for contributing to the strategic alignment and improved coherence of digital government implementation in the country. Nevertheless, in order to reinforce the recognition of its relevance across the different public sector organisations, the Government of Slovenia should prioritise resuming the meetings of the Strategic Council. Since this is expected to happen in July 2021 according to the information shared with the OECD peer review team, the existing budget threshold will certainly resume its policy centrality in the Slovenian digital government panorama.

Legal and regulatory frameworks

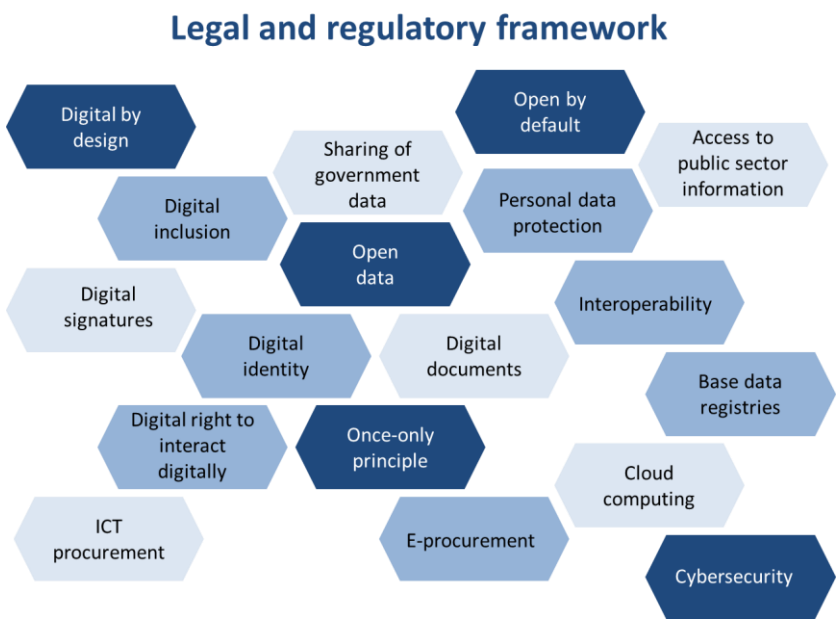
Towards an enabling legal and regulatory context

Today's fast pace of digital change requires permanent efforts by governments to keep the legal and regulatory frameworks updated. Policy actions need to be backed by clear laws and regulations that can guarantee principles such as openness, accountability, proportionality and impartiality, together with

unquestionable respect of citizens' and businesses' rights; thus governments' agility and responsiveness to institutionally navigate the rapid changes underway are two of the critical challenges of the digital age. Legal and regulatory frameworks should enable digital opportunities to be seized and risks tackled, avoiding creating bureaucratic resistance to the transformation of economies and societies, minimising risks and maximising benefits (OECD, forthcoming[24]).

OECD countries have progressed a lot in the last decades through the establishment of digital rights, the formal recognition of digital artefacts such as documents and signatures, the reinforcement of personal data protection and cybersecurity legal frameworks, and the increasing regulation on data governance (Figure 2.16). Depending on the institutional culture of their public sector, some countries have more legalistic approaches, further developing their regulatory framework in different policy streams and detailing processes and procedures in order to secure effective implementation and compliance. Countries with Latin institutional cultures, such as Chile, Colombia, France, Italy and Portugal, tend to follow this approach. Countries that have a more consensus-based institutional culture generally have a minimalistic approach to legislate and regulate different topics. Anglo-Saxon countries such as Australia, Canada and the United Kingdom are good examples of the consensus-based approach (OECD, forthcoming[24]).

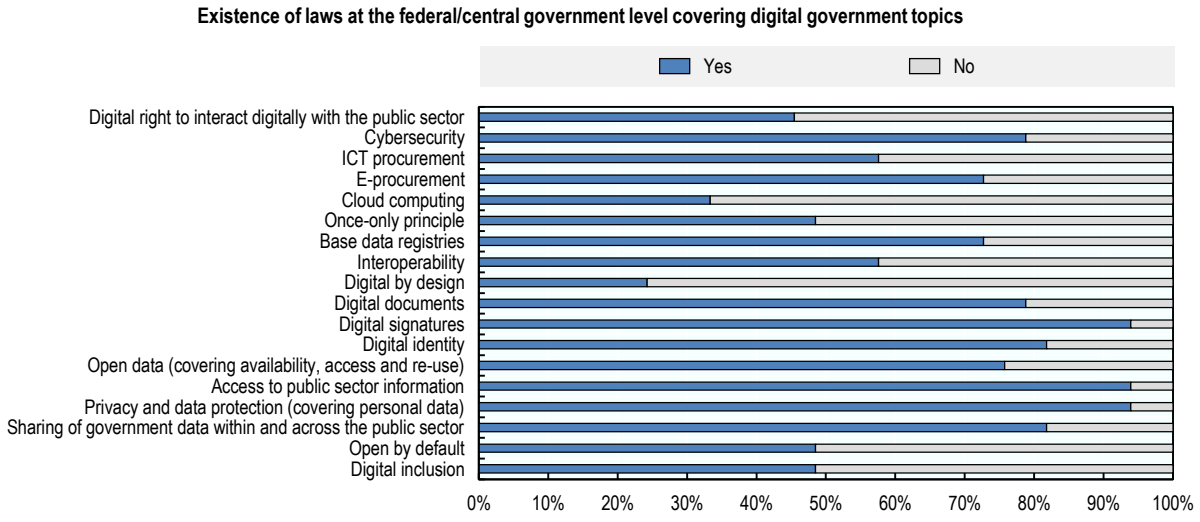
Figure 2.17. Legal and regulatory framework



Source: OECD (2019[43]), *Digital Government Review of Panama.*

Based on the OECD Survey on Digital Government, Figure 2.18 presents a good picture of the digital government topics covered by OECD member and partner countries in their legal and regulatory frameworks. For instance, almost all respondents (93%) confirmed having legislation on digital signatures, access to public information, and privacy and data protection. Laws and regulations covering digital identity (82%), sharing of government data across the administration (82%), cybersecurity (79%), digital documents (79%) and open government data (76%) are also common in countries that answered the survey. In contrast, laws on cloud computing (33%) or digital by design (24%) are less frequent in those countries.

Figure 2.18. Legal and regulatory panorama in OECD countries



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results*, Question 92 "Please indicate whether laws at the federal/central government level exist covering the following topics", http://dx.doi.org/10.1787/4de9f5bb-en.

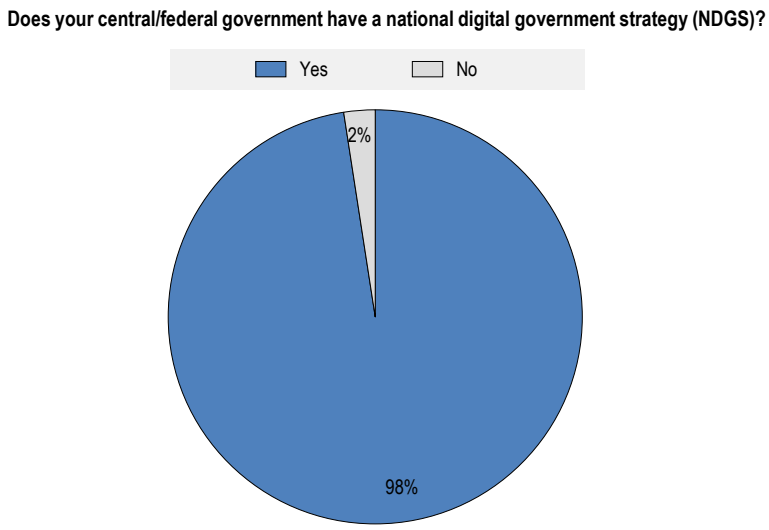
Slovenia is characterised as a predominantly legalistic institutional culture. In other words, government practice tends to support policy implementation through detailed laws and regulations that can secure coherency, consistency and sustainability across the different sectors and levels of government.

Slovenia has an extended digital government legal and regulatory framework. The existing laws and regulations in the country are able to cover the main policy issues presented in Figure 2.17 and Figure 2.18. For instance, the decree on Administrative Operations (Official Gazette No. 9/18) regulates digital communication between the administration and citizens. The Access to Public Information Act covers access to public information but also topics such as open by default and open government data (Official Gazette No. 51/06). Info-inclusion and accessibility are covered by the Accessibility of Websites and Mobile Applications Act and digital identity, and digital signatures are covered in the Electronic Business and Electronic Signature Act. Another relevant example regards e-procurement. The Slovenian Public Procurement Act requires, for instance, that procurement notices be published in the Public Procurement Portal (https://www.enarocanje.si) and that communication and submissions in the procurement procedures be handled electronically.

As a European Union member country, Slovenia has a digital government legal and regulatory context that is highly influenced by existing European directives and regulations. For instance, privacy and data protection are determined by the General Data Protection Regulation (European Parliament and Council, 2016[47]), and digital security is based on the Directive (EU) 2016/1148 concerning measures for a high common level of security of network and information systems across the Union (European Parliament and Council, 2016[48]). Access to public information is determined by the European directive on open data and re-use of public sector information (European Parliament and Council, 2019[49]), and activities in the area of digital identity are aligned with the regulation on eIDAS (electronic IDentification, Authentication and trust Services) (European Parliament and Council, 2014[50]). Finally yet importantly, the Slovenian Public Procurement Act transposes the European directives 2014/24/EU and Directive 2014/25/EU in this area (European Parliament and Council, 2014[51]) (European Parliament, 2014[52]).

The level of acknowledgement of the existing laws and regulations across the Slovenian ecosystem of digital government stakeholders is a good indicator of the involvement in and awareness of the structural pillars of the Slovenian digitalisation of the public sector context. As presented in Figure 2.19, the Slovenian public sector organisations that participated in the OECD Survey on Digital Government easily acknowledged the existence of laws in areas such as digital signatures (91%), access to public sector information (86%), privacy and data protection (80%), digital identity (77%) and e-procurement (75%). However, existing legislation and regulation in the areas of ICT procurement (46%), digital inclusion (25%) and open by default (21%) was not easily recognised by the public sector organisations. Considering how structural these later legislative and regulatory pieces are, further awareness could be expected from the Slovenian ecosystem of digital government stakeholders.

Figure 2.19. Legal and regulatory panorama in Slovenia

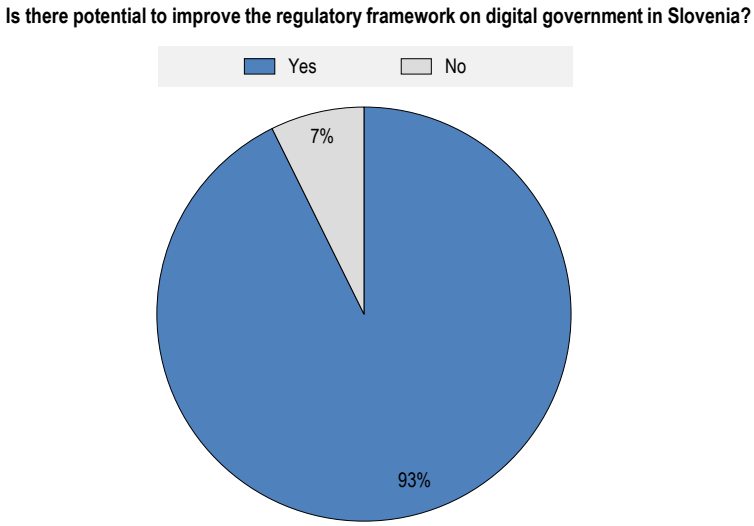


Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 7 "Please indicate whether federal/central government level laws cover the following topics"

The predominantly legalistic culture was frequently acknowledged by the Slovenian public sector organisations interviewed during the OECD fact-finding mission to Ljubljana in October 2019. Some stakeholders mentioned this as a challenge that can block agile policy making and implementation while others underlined the existence of important legal and regulatory gaps in specific areas (e.g. digital identity, emerging technologies). This underlines the need to update some of the existing laws and regulations, given the fast pace of innovation observed in the current digital transformation context. Besides the level of acknowledgement, it is also important to access the national stakeholders' perception of the potential for improving the existing regulatory framework. In Slovenia, this indicator provides clear insights, since 93% of the public sector organisations that participated in the OECD Digital Government Survey of Slovenia considered that there is potential for improvement, against only 7% that were happy with the existing panorama Figure 2.20.

This legalistic culture of the country can partially explain the high level of demand and expectations from the ecosystem of stakeholders regarding the existing legal and regulatory framework as a fundamental mechanism to secure policy implementation. It also provides a clear indication that the Government of Slovenia should continue prioritising the update of the framework in order to keep up with the fast pace of innovation and disruption in the current digital transformation context.

Figure 2.20. Potential to improve the regulatory framework in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]) *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 8 "In your view, is there potential to improve the regulatory framework on digital government in Slovenia?"

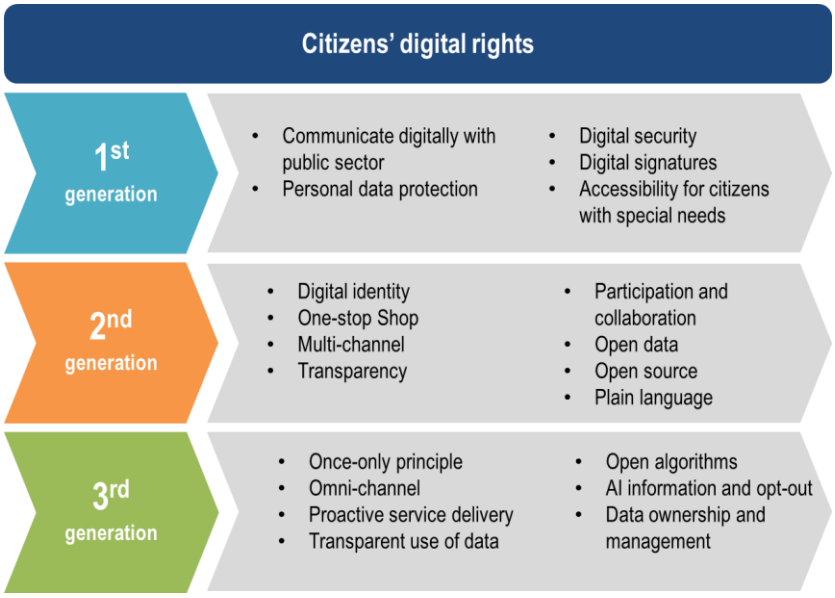
The Slovenian government should also consider reinforcing its efforts towards the development of a digital-by-design culture among its policy makers responsible for new legislation and regulation. This would allow law-making processes to represent a digital mindset that can enable the legislative and regulatory framework in Slovenia to be progressively developed, taking from the start the full benefit of digital technologies and data. The digital-by-design culture and mindset applied through the policy lifecycle could also support the development of a more agile and less legalistic culture across the public sector, enabling the Slovenian government to more easily seize the benefits and tackle the challenges of the digital transformation underway.

Digital rights for a people-driven transformation

In line with the benefits of the penetration of digital technologies and data into today's economies, societies and governments, new risks also emerge in areas such as inclusion, privacy or security. Governments are required to guarantee that the digital disruption underway is not a threat to democratic core values, namely to the rights of its citizens in the digital age. During the last decades, different waves of digital rights have framed the relations of the citizens with the public sector (Figure 2.21), depending on the level of digital maturity presented by countries. The first generation of digital rights is typically committed to protecting the basic rights of the citizens when digital technologies and data start deeply penetrating the public sphere. In an intermediate stage of digital maturity, governments start prioritising more advanced digital rights that can enable their citizens to embrace the digital transformation underway more effectively.

With the progressive penetration of emerging technologies such as artificial intelligence, Internet of Things or big data analysis, a third generation of digital rights starts to emerge and attract the attention of legislators focused on topics such as trust and ethics, as well as proactive service delivery models

Figure 2.21. Digital rights framework



Source: OECD (2019[43]), *Digital Government Review of Panama.*

Advanced digital rights approaches are increasingly reflected in international declarations, principles and regulations, such as the European General Data Protection Regulation, (European Parliament and Council, 2016[47]), the *Berlin Declaration on Digital Society and Value-Based Digital Government* (European Commission, 2020[53]) (Box 2.2) and the OECD Good Practice Principles for Data Ethics in the Public Sector (OECD, 2020[54]) (see Chapter 4).

Box 2.2. Berlin Declaration on Digital Society and Value-Based Digital Government

Following the Tallinn Declaration on eGovernment, the *Berlin Declaration on Digital Society and Value-Based Digital Government* signed in December 2020 re-affirms European leaders' strong commitment to fundamental rights and European values and emphasises the importance of digital public services.

The Declaration presents seven principles to guide policy at national and European Union (EU) level:

9. validity and respect of fundamental rights and democratic values in the digital sphere
10. social participation and digital inclusion to shape the digital world
11. empowerment and digital literacy, allowing all citizens to participate in the digital sphere
12. trust and security in digital government interactions, allowing everyone to navigate the digital world safely, authenticate and be digitally recognised within the EU conveniently
13. digital sovereignty and interoperability, as a key in ensuring the ability of citizens and public administrations to make decisions and act self-determined in the digital world
14. human-centred systems and innovative technologies in the public sector, strengthening its pioneering role in the research on secure and trustworthy technology design
15. a resilient and sustainable digital society, preserving our natural foundations of life in line with the Green Deal and using digital technologies to enhance the sustainability of our health systems.

Source: European Commission (2020[53]), *Berlin Declaration on Digital Society and Value-Based Digital Government*, https://digital-strategy.ec.europa.eu/en/news/berlin-declaration-digital-society-and-value-based-digital-government.

Adopting a digital rights approach to updating the current legal and regulatory framework would reinforce the policy orientation in Slovenia to be increasingly people-driven, with all the benefits for strengthening citizens' trust in the public sector and linking the digital transition with other policy agendas such as well-being, sustainable development, and the transition towards a low-carbon and green economy. Using the country's European Union and OECD memberships as an opportunity to move fast and leapfrog among the most digitally mature economies in the world, Slovenia should build on the current national momentum where a new national digital strategy is being formulated to strengthen the digital rights of its citizens.

3 Digital talent for a transformative public sector culture

This chapter is structured around the three pillars of the OECD Framework for Digital Government Talent and Skills necessary to conduct digital transformation, which requires a digital enabling work environment, five digital government skills and a sustainable digital workforce. The first section presents the Framework for Digital Government Talent and Skills. The second section assesses and applies the framework to the Slovenian context while giving suggestions for improvement.

Introduction

Given the disruptive aspect of digital technologies in society, governments' role in meeting citizens' expectations, managing increasing pressures on budgets and responding to new policy issues have become challenging as digital disruption means constant change and rethinking ways of operating to deliver public value in the public sector. However, this paves the way for evolution and growth and, if well-done, it would maintain and restore trust from citizens. The COVID-19 pandemic presented a new challenge to the delivery of public services (see Chapter 4), but it also has demonstrated the importance of a more flexible and adaptable public sector when facing uncertain circumstances. In analysing the impact of the COVID-19 crisis as a catalyst for government transformation, the OECD has found that governments scoring high in the OECD Digital Government Index were better prepared to use digital technologies and data and demonstrated greater resilience and responsiveness as a result. In other words, developing digital government maturity to act as "digitally enabled states" is key to managing crises (OECD, forthcoming[55]; OECD, 2020[56]) (See Chapter 1).

In line with the 2014 OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[57]), a successful digital transformation requires several key aspects. Governments need to be equipped not only with the right technology but also with the right working environment, the right skills and the right talents to support the progression from e-government to digital government (OECD, 2021[58]). Indeed, since a country's digital maturity is determined by how well the country is able to integrate digital technology into all sectors and services, changing how they operate to deliver public value to citizens, this also includes a cultural shift that requires organisations to continually challenge the status quo, experiment and get comfortable with failure.

Slovenia has the aspiration of moving from e-government to digital government and is placing their digital policies high on its agenda. To accompany this ambition, a digital workforce is necessary to lead and enable sustainable change. Governments must rely not only on the digital capability but also on the complicity of their public servants to take initiative and transform digitally which, in the long run, will nurture relationships with citizens and deliver better public services.

For digital transformation to happen, governments' focus on creating a work environment that is suitable to the development and application of digital government skills is fundamental. Although numerous analyses have identified the skills needed for 21st century governments, none has exposed the skills for a digital government and the importance of digital skills. Consequently, the OECD developed the Framework for Digital Government Talent and Skills which is meant to fill this gaps and identifies three major pillars to consider while building and maintaining a digital public workforce (OECD, 2021[58]).

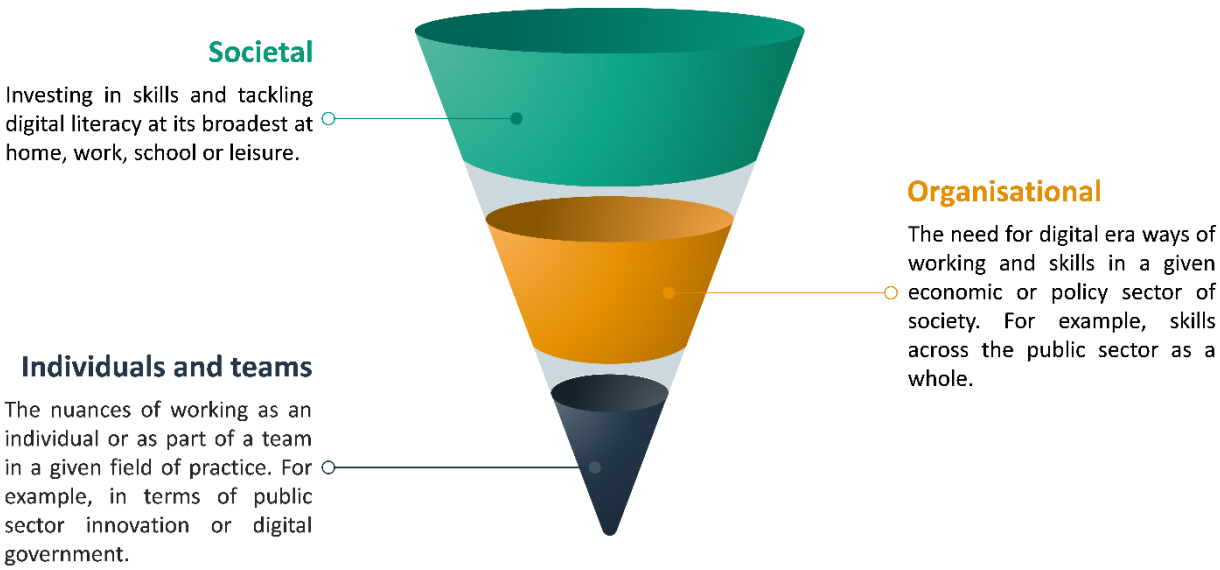
This chapter starts by presenting the Framework for Digital Government Talent and Skills in the Public Sector, which emphasises the importance of the work environment, of developing the right skills to conduct a digital transformation and of attracting talents that will stay. The analysis then focuses on the current situation in Slovenia, addressing the policy efforts implemented or considered by the country's digital strategy and covering actions the country could further consider in terms of talent and skills to improve its evolution towards a digital government.

The OECD Framework for Digital Government Talent and Skills in the Public Sector

Digital technologies have created the need for more diverse and deeper knowledge and skills. Given this rapid advancement of digital technologies, a whole world of research and studies have shed light on the necessary skills at different levels: societal, organisational, and individual and team levels (OECD, 2017[59]; OECD, 2017[60]; OECD, 2019[61]). Breaking down the analysis and identification of skills is crucial, given

the scopes and layers of complexity that each level brings to the table to better understand needs and meet expectations. While societal skills focus on the ability to use digital tools in our daily life and organisational skills relate to a narrower set of sectorial needs (Figure 3.1), the individual and team skills of the public sector rely on the OECD Framework for Digital Government Talent and Skills (Figure 3.2). This framework has been conceived to guide the public sector in achieving digital maturity, as equipping public servants with current and emerging skills in a steady and disciplined manner should be the strategy for organisations to survive in the age of disruption.

Figure 3.1. From societal, to organisational, to individual and team skills



Source: OECD (2021[58]), "The OECD Framework for Digital Talent and Skills in the Public Sector", https://doi.org/10.1787/4e7c3f58-en.

Building on previous work on societal and organisational skills, the OECD Framework for Digital Government Talent and Skills presents three pillars. First, pillar 1 examines the importance of the context for those working on digital government and assesses the environment required to encourage digital talent, referring to individuals and teams working in digital, to lead digital transformation. This part of the framework not only highlights how governments should appraise their leadership, organisational structures, learning culture and ways of working but also shows how conducive the workplace environment is for a digital workforce from a leadership, organisational and cultural point of view (OECD, 2021[58]).

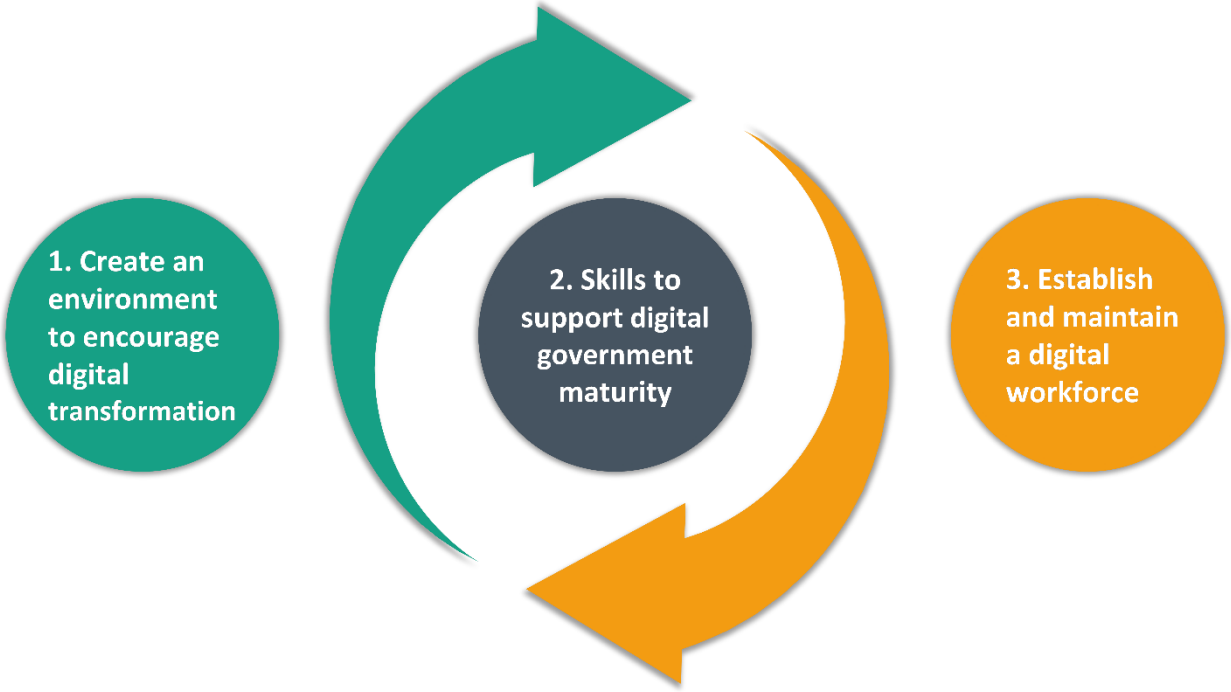
Secondly, and at its heart, the next pillar unpacks the definition of skills for a digital government. This part locates the skills for a digital government in the broader context of 21st century skills before looking at four additional areas of skills required for a digital government: user skills, socio-emotional skills, professional skills and leadership skills. It identifies the areas in an organisation's model of skills and competency that need developing to support greater maturity of digital government (OECD, 2021[58]).

Finally, the third pillar considers the practical steps and enabling activities required to establish and maintain a workforce that encompasses the skills for a digital government. Recruitment methods, career planning, workplace mentoring, training and the role of the public sector need to be redesigned. This creates opportunities to improve approaches to particular areas and ensure that the workforce is, and remains, sufficiently digital (OECD, 2021[58]).

The core of the framework is the focus on the digital skills required by public servants, which are powered by the capacity for teams and individuals to thrive in their work. The training, development and application

of digital skills are thus determined by the relationship between the work environment and the ongoing efforts to establish and maintain a digital workforce (OECD, 2021[58]).

Figure 3.2. The OECD Framework for Digital Talent and Skills in the Public Sector



Source: OECD (2021[58]), "The OECD Framework for Digital Talent and Skills in the Public Sector", https://doi.org/10.1787/4e7c3f58-en.

Digital skills and cultural landscape in Slovenia

As indicated by the OECD Digital Government Index (OECD, 2020[62]), successful digital governments are better equipped to make the most from digital technologies and data as they set up an environment to unleash them, ensure to have the right skills to exploit them and the right system to maintain the outcome to continue growing in digital maturity. Applying the three pillars of the OECD Framework for Digital Government Talent and Skills will guide governments into setting favourable conditions to welcome digital change.

Scoring slightly above the OECD average (OECD, 2020[62]), Slovenia could benefit from a particular attention to having talents equipped with digital skills to lead the transformation while building a sustainable workforce. This section assesses the findings collected, from interviews in October 2019 through a Digital Government Survey of Slovenia circulated in early 2020 and from a capacity building workshop on digital talent and skills in December 2020, against the three pillars of the framework and share suggestions and advice to boost digital transformation in the country.

A digital enabling environment

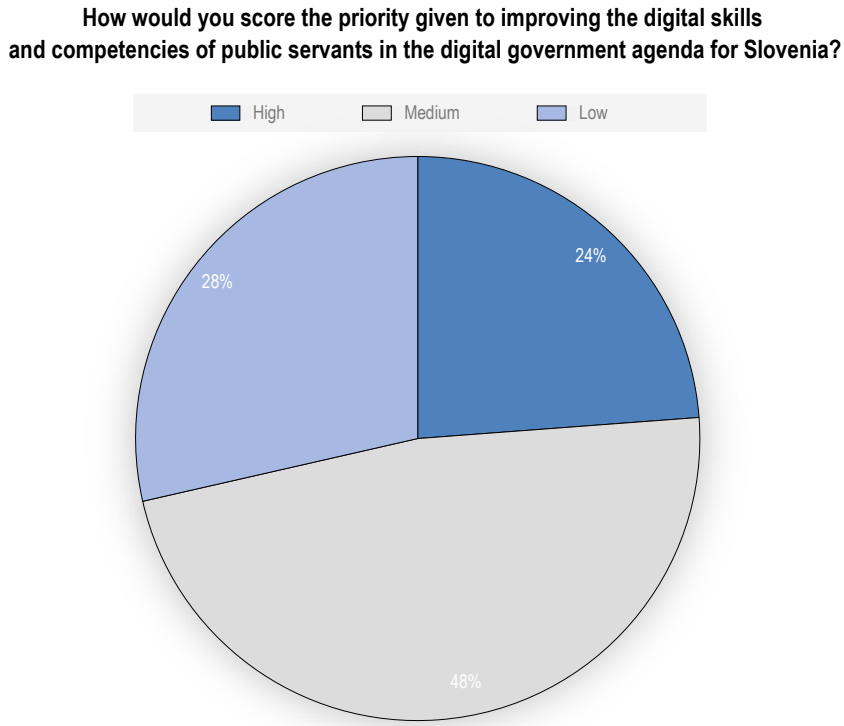
In line with the OECD *Recommendation on Public Service Leadership and Capability* (OECD, 2019[63]) and with the OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[32]), a country's leadership is fundamental to conducting the shift from e-government to digital government. The experience of several OECD member and non-member countries demonstrates that a solid direction and a clear vision from leaders would not only enlighten the purpose of an organisation but also promote the

benefits of digital government and establish a work culture focused on digital practices (see Chapter 1 and 2) (Kulkarni and Scott, 2019[64]).

In Slovenia, considerable political changes happened in the past decade which have possibly affected the set-up of a digital culture to steer and co-ordinate across the government structure (Chapter 1 and 2). During the OECD mission to Slovenia, the team noticed some important efforts being made to centralise information at GOV.SI and services under eUprava (discussed further in Chapter 4). This proves that a strong leadership with a clear and forward-looking vision could help to establish goals and behaviours that strengthen collaboration across sectors within the workplace.

However, leading with purpose and aspiration is one thing; communicating it is another. Results from the Digital Government Survey of Slovenia (OECD, 2020[5]) show that 76% of public servants perceive digital skills and competencies as a medium to low priority in the digital government agenda of Slovenia (Figure 3.3). A large majority of public servants considered that digital skills are encouraged to have but are not required and that only staff working in specific areas should be trained. Therefore, it seems that the digitalisation strategy was not well-communicated throughout organisations. Governments failing to disseminate their strategy across public institutions may face challenges, as their workforce is likely to misunderstand the common objective and thus focus on other activities. For this reason, the initiative to improve the digital skills and competencies of public servants becomes a personal initiative for many public servants rather than part of a digital agenda.

Figure 3.3. Digital skills and competencies priorities in the digital government agenda of Slovenia



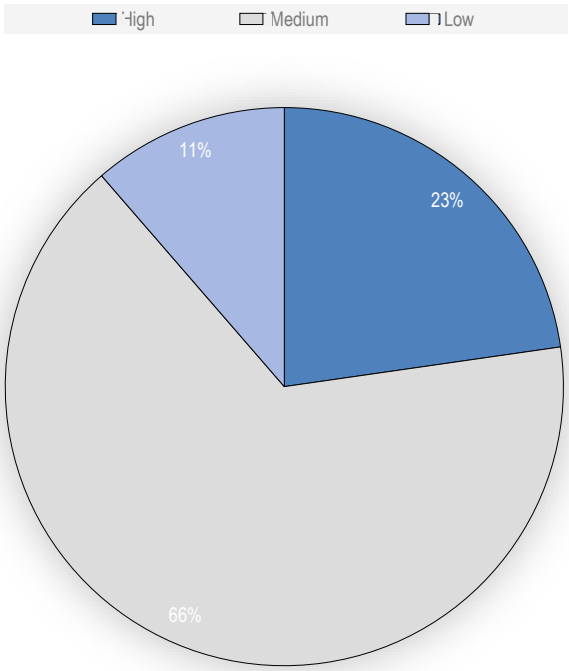
Note: Based on the responses of 45 institutions.
Source: OECD (2020[5]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*. Question 17 "How would you score the priority given to improving the digital skills and competencies of public servants in the digital government agenda for Slovenia?"

Aligned with the previous finding, the survey identified that 77% of participants lacked motivation to improve digital skills and competencies (Figure 3.4), as few showed interest in joining and applying for training and courses. This might result from the lack of communication of the strategy's priorities and a misalignment of the values of digital skills and competencies in the eyes of public servants, which explains their low motivation towards digital training. Consequently, this has led to more demand for external provision of services, which not only creates a lack of internal skills but also results in teams being overloaded by more administrative and managerial tasks than technical ones. In the long term, this practice puts at risk the capacity to control and understand what is being developed and to co-operate with other teams, as the lack of internal skills restricts the flexibility to operate in an agile way.

To stimulate digital transformation, Slovenia could consider conveying the advantages of digital transformation and including digital talents in the decision-making process by empowering them with digital skills and competencies. Ensuring the workforce shares and understands the goal of the country is the cornerstone of digital change.

Figure 3.4. Level of motivation of improving digital skills and competencies in the Slovenian public sector

How would you score the motivation level of improving digital skills and competencies in your institution?



Note: Based on the responses of 45 institutions.
Source: OECD (2020[5]), *Digital Government Survey of Slovenia, Public Sector Organisations Version.* Question 18 "How would you score the motivation level of improving digital skills and competencies in your institution?"

Although the project of centralisation through GOV.SI (see Chapter 4) is a great opportunity for collaborating and deepening synergies between institutions, a lack of engagement has often been observed. This has resulted in some people's perception of such an initiative as being a top-down decision instead of an invitation to a joint one. During the capacity building workshop, the OECD team confirmed that there seems to be some rigidity in the organisational structure and that most decisions are being made

in silos by leaders. This observation reveals that the organisation has a hierarchical structure, which makes the system more bureaucratic and leads to less collaboration and longer decision-making processes. Establishing an organisational structure that flattens the interactions between individuals of an entity and scopes out future needs in the public sector is critical to encourage collaboration between digital talents and increase the feeling of ownership of their work. Another benefit of having fewer layers in an organisation's structure is the possibility to quickly identify and adjust job profiles and descriptions (OECD, 2021[58]) according to needs.

To foster digital transformation, the Government of Slovenia may need to consider establishing a more horizontal structure to offer a more agile environment where digital talents feel empowered in their work. As shown in the example in Box 3.1, Australia anticipated transformations in the next decade and called for a reduction of organisational layers to allow faster and better decision making by bringing the right experts around the table. Given that digital government evolves in a fast-changing environment, institutions need to adapt and be flexible to improve decisions and meet the changing needs and expectations of citizens and businesses.

Box 3.1. The Australian Public Service Review

In May 2018, the Australian government commissioned a review to ensure the Australian Public Service (APS) was fit for purpose. The process engaged with more than 11 000 individuals and organisations and over 400 consultations to conclude that service-wide transformation was needed to achieve better outcomes. This was not to say that the APS was broken but that the status quo was insufficient to prepare for the changes and challenges anticipated in the next decade.

Recommendation 32 of the review was to streamline management and adopt best-practice ways of working to reduce hierarchy, improve decision-making, and bring the right APS expertise and resources. The implementation guidance called for management structures to have no more organisational layers than necessary in order to allow for decision-making at the lowest practical level with spans of control reflecting the type of work being managed, structures providing flexibility to respond to changes and jobs classified according to work level.

Source: Commonwealth Government of Australia (2019[65]), *Our Public Service, Our Future. Independent Review of the Australian Public Service*, https://pmc.gov.au/sites/default/files/publications/independent-review-aps.pdf.

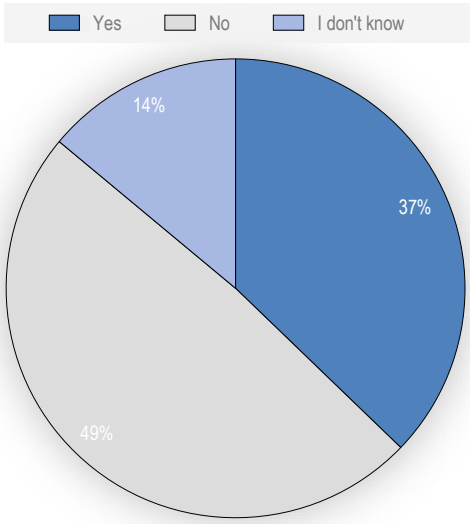
Given the progressive use of digital technology across government institutions, there is also a need to consider embracing a more receptive workplace to digital settings and lifelong learning. This comes with an environment set by leaders fostering digital experimentation, the application of new digital skills and the creation of a solid learning culture. Although the Administration Academy provides training to fill in digital skills gaps (further discussed in the next section), a large number of participants shared that some leaders did not understand the need for constant training and have insufficient resources to encourage digital skills. The lack of prioritisation and funding of digital skills is a challenge to digital transformation, as it could convey the message that digital skills are not a priority. Funding continuous training is a direct way of showing leaders' support for lifelong learning and their contribution to talents' career growth and development.

Once talents are trained with the necessary skills, they need an environment that supports and encourages them to put their skills into practice. Establishing a learning culture is an important element to enable digital transformation and foster innovation, as it creates a safe place for staff to test ideas, use digital tools and experiment with digital skills. Findings from the mission to Slovenia displayed concerns about the lack of opportunities to pilot and experiment, as well as the fear of failure. In addition to this, the survey found that more than half of public servants were not encouraged to apply digital skills they learned (Figure 3.5).

Although almost 40% of participants expressed that they were encouraged to test, use and experiment in small groups and through internal workshops, these issues may create anxiety for staff unable to use technologies and increase the dependency on third-party external actors. In this situation, leaders play a vital role in establishing not only a change of mindset by putting the human in the centre of the strategy but also a safe environment for talents to expand their digital skills, experiment with confidence and embrace failure.

Figure 3.5. Existence of testing, using and experimenting practices in Slovenian public institutions

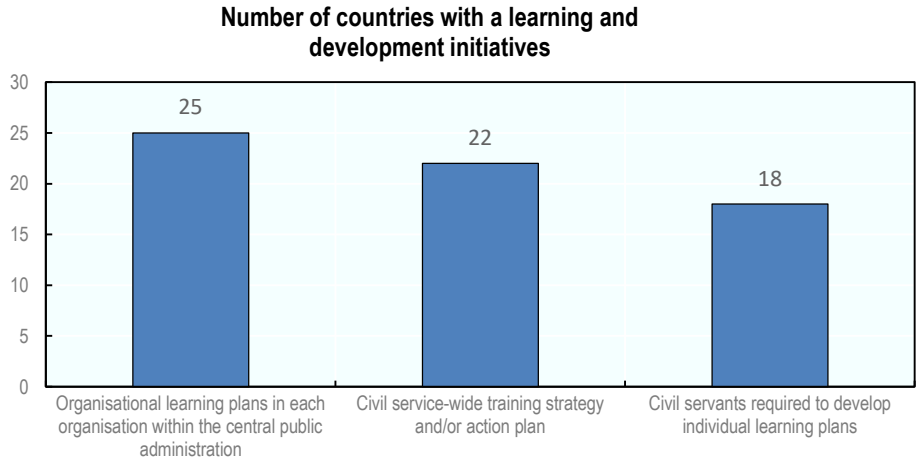
Does your institution encourage staff to test/use/experiment the digital skills and competencies they've learned in the work environment?



Note: Based on the responses of 45 institutions.
Source: OECD (2020[5]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*. Question 22 "Does your institution encourage staff to test/use/experiment the digital skills and competencies they've learned in the work environment?"

The 2019 OECD *Recommendation on Public Service Leadership and Capability* (OECD, 2019[63]) champions governments' creation of a learning culture and environment in the public service that goes beyond traditional classroom training. Data collected by the OECD Survey on Strategic Human Resource Management (OECD, 2019[66]) show a large recognition of the value of learning and development among governments in OECD countries, which are also essential preconditions to foster public sector innovation (OECD OPSI, 2020[67]). As seen in Figure 3.6, about 70% of countries (25 out of 36) have organisational learning plans in place in each organisation within the central public administration (OECD, 2019[66]). This more strategic role of leaders could enable the development and growth of a more digital workforce to adapt to an increasingly digital society.

Figure 3.6. Learning and development initiatives and training priorities in public administrations, 2019



Note: The figure shows data for the total respondents of 36 OECD countries.
Source: OECD (2019[66]), OECD Survey on Strategic Human Resource Management.

The rapidly changing environment of digital government has pushed organisations to adopt new ways of working and to keep up with the pace of digital technologies. Flexible ways of working have surfaced in recent years, embracing measures such as using adequate tools and technologies at work, having flexible working hours and flexible workplaces, along with applying user-centred methodologies. The COVID-19 pandemic has not only forced many governments and organisations to change their ways of working rapidly but also demonstrated the benefits of digital government and accelerated its transformation in many of them.

The *OECD Digital Economy Outlook 2020* found that 34 out of 37 OECD countries had put in place a national digital strategy co-ordinated at the highest level of government as of mid-2020 (OECD, 2020[68]). Although the strategic trends of digital transformation are encouraging and governments are evolving towards a digital government, there is an urgent need to have access to the appropriate tool and skills. Access to equipment, resources and software are essential to establish a digital enabling work environment that promotes digital transformation. These elements would allow talents to access what they need when they need it, which is an important aspect of productivity, particularly in terms of having the autonomy to make decisions about what best supports their working practices (Kratzer, Leenders and Van Engelen, 2006[69]).

In Slovenia, the institutions were challenged to adopt teleworking policies overnight due to COVID-19: at the beginning of the crisis, 10% of public servants began working at the office and 50% at home, with 40% on leave or placed on a 20% salary cut. Slovenian public servants who experienced working from home benefitted from a better work-life balance and an increase in well-being, showed higher productivity and lowered costs for the institutions. Over the pandemic, the Administration Academy has adapted most training programmes into online courses, provided virtual training for the EU Presidency of Slovenia, as well as for the use digital tools. However, they also recognised areas that need adjustment to better incorporate this new way of working. Communication tools are one of them. Since organisations use different platforms to work and communicate between colleagues, collaboration could be more challenging to prevent teams from working in silos.

As working from home was not a common practice, the country was neither able to equip all its staff for teleworking nor give them access to tools and resources without endangering the level of cybersecurity. Although they managed to offer some distance learning facilities through the Administration Academy, this

experience validates the necessity of having adequate tools to work remotely and flexible working policies in place to sustain an agile culture. Slovenia could consider investing in suitable tools to enhance productivity. Formalising these working methods is also an opportunity to ensure their application. However, it is critical that they be approached in ways that help staff to establish new behaviours and that emphasise people's feelings of agency and empowerment instead of giving any sense of enforced compliance (OECD, 2021[58]).

To build a suitable work environment for digital transformation, the Government of Slovenia could not only adjust its leadership with a strong vision of their digital priorities but also clearly communicate them across organisations to avoid misalignment and define a common direction. Similarly, a more horizontal organisational structure along with a learning culture supported by leaders would empower digital talents to help the country evolve in a digital world. Slovenia could also establish ways of working that are more flexible in terms of hours, places and methodologies and could have the tools to support digital practices. Such a work environment would welcome and speed up the acquisition of digital skills and support digital talents in their professional growth.

The skills for a digitally-enabled state

In light of the change in the nature of work of the public sector, it has become essential to identify, train and equip civil servants with digital skills that would enable them to complete their jobs best and deliver high-quality public services. Following the OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[32]), many OECD member and non-member countries demonstrate a willingness to achieve further digital maturity by prioritising institutional capacities in building a digitally skilled workforce. In 2019, the *Government at a Glance* publication found that around 61% of OECD countries (22 out of 36) have civil-service-wide training strategies or action plans, which is an increase from slightly less than half in 2016 (Figure 3.6) (OECD, 2019[66]).

In Slovenia, the Ministry of Public Administration through the Administration Academy took the initiative of addressing the digital skills and competencies gap by providing training to public servants. The Administration Academy offers rudimentary training skills, such as word processing, Internet navigation, email communication and spreadsheet programmes, in order to provide the workforce with basic skills. The Academy also collaborates with university experts to develop new training programmes with different modules targeted at different groups of public servants for the development of digital skills including data science for beginner, business intelligence, machine learning, as well as open data management. In 2019, they launched a new "Digital literacy training programme for public servants". This programme follows the DigComp Framework for Citizens with 21 competencies in 5 areas. The objective of the training programme is to enable civil servants to use information and communications technology in a creative, safe and critical way. This follows from the 2018 launch of a data management programme that consists of different modules tailored for different focus groups such as managers, analysts and information technology (IT) experts with varying degrees of knowledge. The objective of the training is to foster data literacy and the use of modern technologies for better decision-making. Both programmes could be performed either in person or remotely (OECD, 2021[58]).

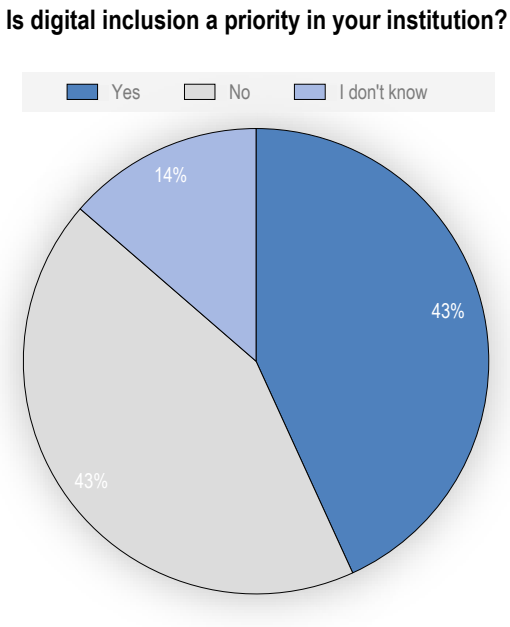
In addition to the Administration Academy and current efforts of reflecting the OECD Framework for Digital Government Talent and Skills, it is important to offer training that is suited for public servants and their needs. Talents in the public sector must be equipped with 21st century skills, digital government user skills, digital socio-emotional skills, digital government professional skills and digital government leadership skills. It is thus important to make sure that talents from the Government of Slovenia are well-equipped to conduct digital transformation.

For a digital government to be successful and trusted, it calls for applying a user-centric approach by serving citizens and taking into consideration their needs, aspirations and behaviours (OECD, 2019[66]). The provision of user-centric services comes with the establishment of a data-driven public administration,

where the generation of data through the use of services could help iterate and improve public services to better meet citizens' needs (see Chapter 4). However, given the digital age, an increasing number of services are being developed online, which requires public institutions to be mindful of the digital divide and ensure digital inclusiveness.

Digital literacy thus becomes fundamental as everyone needs to be able to navigate on the Internet and use digital technologies to thrive in today's society. During the fact-finding mission, the OECD peer review team noted that many stakeholders recognised not only the lack of IT skills in the public sector but also the lack of digital inclusion in society as a whole, as only 43% of respondents felt digital inclusivity was a priority in their institution (Figure 3.7). People in Slovenia do not seem to be entirely well equipped with basic 21st century skills and thus could lack confidence in using digital tools and technologies. This may limit the use of digital public services and consequently jeopardise the user-centric approach of public services, weaken the legitimacy of public institutions and endanger trust in public service competence and values.

Figure 3.7. Digital inclusion in the Slovenian public sector



Note: Based on the responses of 45 institutions.
Source: OECD (2020[5]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*. Question 23 "Is digital inclusion a priority in your institution?"

To become a user-driven public administration and provide user-centric public services, governments should seek digital inclusion and guarantee citizens have enough digital literacy to engage with the public sector in order to voice out their needs and participate in policy and service design processes and to use services online (see Chapter 4). In the case of Slovenia, the country could invest in digital literacy training for its citizens to increase the digital inclusivity of services and empower its citizens to make the most out of public services.

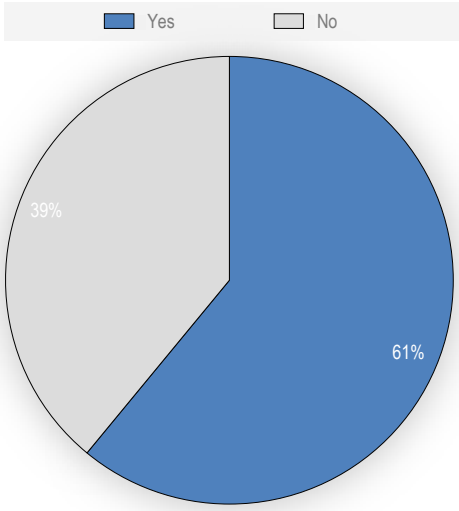
Digital government user skills are the baseline for public servants, as are the 21st century skills for citizens. *OECD Government at a Glance 2019* published that half of the OECD countries had put in place IT and digital skills training in their central administrations (OECD, 2019[66]). Indeed, every public servant must understand and master digital government user skills to design and deliver quality public services. The five basic skills, as mentioned above, are recognising the potential of digital for transformation, understanding

users and their needs, collaborating openly for iterative delivery, using data and technology in a trustworthy manner and promoting data-driven government. Over the workshop, participants shared that newcomers do not get any training when they first start work. Public institutions in Slovenia seem to have neither standardisation of processes and tools for easier adoption nor a guarantee of security or other standards to help newcomers navigate in public organisations. Ensuring training on digital government user skills for every public servant would establish a common mindset among public servants at an early stage. This is crucial in using digital technologies and data to help rethink and redesign government in ways that respond to the needs of the public.

In a digital government, teams need to be diverse and multidisciplinary to cover perspectives that reflect those of society and bring different types of expertise to the table to best meet citizens' expectations. More than half of the stakeholders (Figure 3.8) shared that they work with multidisciplinary teams. For small in-house projects, teams usually consist of at least a content specialist, an analyst and a technical expert. For large-scale projects, teams include analysts, designers, engineers, subject matter experts, content specialists, policy makers, procurement professionals, technical experts, developers and infrastructure designers.

Figure 3.8. Use of multidisciplinary teams in the Slovenian government

Does your institution use multidisciplinary teams (involving for example designers, engineers, subject matter experts, content specialists, policy makers, procurement professionals) for delivering digital, data and technology projects?



Note: Based on the responses of 45 institutions.
Source: OECD (2020[5]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*. Question 25 "Does your institution use multidisciplinary teams (involving for example designers, engineers, subject matter experts, content specialists, policy makers, procurement professionals) for delivering digital, data and technology projects?"

As a recognition of this important practice, Spirit Slovenia has formalised the initiative of building multidisciplinary teams within its agency in 2019, where the size and complexity of a project determine their composition of a team. Another example of good practice was the excellent co-operation between the Ministry of the Interior (MOI), the Faculty of Informatics and a private partner in establishing data registers. In this project, the MOI acted as the subject matter expert, content specialist and policy maker; both the Faculty of Informatics and the private partner acted as designers and engineers for delivering digital, data

and technology projects. Mixing professions while balancing digital government socio-emotional skills and digital government professional skills are key elements to building a user-centred digital government.

However, 39% of the survey participants expressed that they did not work in a multidisciplinary team, as it is often complex to have the right composition of skills and constitute a formal team (Figure 3.8). Having the right talent in the right teams can indeed be challenging. In addition to formalising multidisciplinary practices, part of being a digital government is also having a flexible organisational structure to enable the mobility of staff. Allowing staff to change teams and choose the topics they want to work on would be a high source of motivation and job satisfaction for digital talents (further discussed in the next section).

As mentioned in previous chapters and seen in the section above, leaders holding digital government leadership skills are the drivers of digital change. In 2019, almost 70% of OECD countries (25 out of 36) placed a high priority on executive leadership training and coaching (OECD, 2019[66]). This data reveals the crucial role of leaders as catalysts of strategic reforms across the civil service. This means that understanding the five basic digital government user skills, applying them and actively demonstrating the importance of building the right environment to welcome a digital mindset and practices would enable leaders to facilitate and encourage greater digital government maturity.

In Slovenia, the Administration Academy has developed several training courses for top management in the public sector. The Academy has designed a mandatory training programme for top leaders based on a competence model that covers digital aspects and beyond, and recently prepared a new digital competency programme for training all leaders, who will be offered to choose their own training paths. Although some training is organised at leaders' level, motivation to attend training appears to be low, and public servants in managerial positions do not seem to be able to carve out time for it. If nothing is done, this situation may damage trust towards leaders, as staff may question the reliability and accountability of their leadership in their digital strategy. To improve this, Slovenia could formalise providing the digital government user skills training to all public servants and have leaders join the training along with other staff. As for strengthening their digital government leadership skills, there could be initiatives addressing the benefits of telework and championing new ways of working, so that leaders could view them as an opportunity and not a threat. This would not only strengthen trust within the organisation and make leaders seem more approachable but also increase their motivation and nurture curiosity.

After setting up a favourable work environment with a clear vision for digital transformation, the Slovenian government could then prioritise equipping society with 21st century skills to encourage the use of public services, while making them accessible for all, which echoes the strategies of Slovenia. Along with this, the country could also invest in training staff with the digital government user skills across all levels of the institutions, focusing on the area of user-centricity and emphasising digital delivery skills, design thinking and end-user experience, which are specific to the public sector needs. When building multidisciplinary collaboration across sectors and institutions, it is important to allow job mobility to balance out digital government socio-emotional skills and digital government professional skills within a team, as well as personal preference for a specific project. Leaders with strong digital government knowledge and skills would also help create a digitally mature workplace, which would contribute towards a digitally skilled workforce.

The path to a digital workforce

To align with their overarching digital government, governments can decide to hire people through different types of employment contracts (OECD, 2019[66]). The most common distinction is the permanent public servant status and the contractor status, where pay, job security, performance evaluation and access to training differ. These employment modalities often affect the efficiency in attracting and sustaining talents as well as motivating them to give their best to create high-quality public services. With a clear and well-balanced structure, this can give governments the flexibility to develop and manage their workforce with

the proper range of skills. However, if the employment modalities are not used well,services developed by the public sector can be put at risk (OECD, 2019[66]).

Most OECD countries revealed a preference for employing public servants in the central government administrations in 2019 (OECD, 2019[66]). The policy makers acknowledged that the main challenges are to continuously assess skills and competencies needed in the public sector (OECD, 2017[70]) in order to prioritise hiring and maintaining talents in house over outsourcing, particularly in areas with a skills shortage. Therefore, this requires a careful recruitment process and selection along with a recruitment team dedicated to bringing suitable candidates on board.

During the OECD fact-finding mission to Slovenia in October 2019, many public sector institutions shared their concern about having limited funds and a limited number of staff they can hire every year. They cannot recruit new staff unless more senior staff retire. Consequently, in light of the few positions that the public sector of Slovenia can offer every year, institutions could consider having a recruitment team proactively promoting the work, benefits and purpose of the public sector along with clear job descriptions and profiles of talents needed for digital transformation, as this would attract specific candidates fitting the job descriptions. Regarding the recruitment process, it is important to be mindful that, given the current digital needs, traditional recruitment processes no longer work. Instead, it is recommended to evaluate potential candidates by putting them in real situations where they can unleash and apply their digital skills. Also, the best digital talents are rapidly approached and do not stay available on the job market for a long period of time, thus an innovative, smooth and closely tracked recruitment process, like the one in the Pennsylvania states, could be attractive to digital talents.

Box 3.2. Pennsylvania state government recruitment process

Applying for a job with the Pennsylvania state government used to be a daunting process. Jobs posted had vague, bureaucratic titles such as "Administrative Officer 1". Applicants had to take written exams at a testing centre. Some waited months for a civil service commission to respond by mail before they could interview. Many had moved on by then. Recruitment was thus a slow and painful process and would not necessarily get the person with the right skills.

In early 2019, state lawmakers agreed to streamline the 1940s-era system. Now, the agency oversees a centralised website, where job seekers apply for positions that are more clearly defined. Testing and scoring are folded into the online application process, which administrators track closely.

For corrections officer positions, which required candidates to take written examinations until recently, the change had an immediate impact. The number of applicants tripled within the first week of removing that from a test centre environment to applying online for the job.

Source: Ramsey, M. (2020[71]), *Hiring Challenges Confront Public-Sector Employers*, https://www.shrm.org/hr-today/news/all-things-work/pages/hiring-challenges-confront-public-sector-employers.aspx.

To encourage the best-suited candidates to apply during the recruitment period, Slovenia would benefit from having a merit-based selection process and being seen as a transparent and accountable employer. As the establishment of user-centric public services involves creating a digital workforce that reflects the wider society – representing women, minorities and people with disabilities, particularly in senior management and political leadership positions (OECD, 2019[66]), – having measures to reduce hiring biases and enhance diversity and gender equality of teams in place would be an asset and attract potential talents sharing the same values. Estonia's example of nudging methods to promote gender equality could be an inspiration.

Box 3.3. Estonia's nudging methods to increase the share of women in ICT professions

In 2019, Estonia started an 18-month research project led by the Ministry of Social Affairs concentrating on developing and piloting nudge methods to increase the share of women among ICT-sector students and employees. The project is co-funded by the Ministry of Social Affairs and the Estonian Research Council. The following actions are a part of the study:

1. Compiling the current state of play based on existing studies and analysis (including educational choices of girls and women, dropping out of education in the ICT sector, and progress in the job market), mapping the possible reasons for the low number of women in the ICT sector. A qualitative study within main stakeholder groups will be carried out.
2. Presenting proposals for nudging methods with the goal of increasing the number of women in ICT, including in management. These methods need to be piloted for at least nine months.
3. After the pilot phase, carrying out an analysis of the implementation of nudging methods as the basis for a final report and recommendations about future use of nudging methods.

Source: Provided by the Working Party of Senior Digital Government Officials (E-Leaders) Thematic Group on Digital Talent and Skills.

Retention policies are then necessary to keep talents in the workforce. Although the public sector may be able to offer high job security, retention of digital talents remains a challenge as the public sector cannot offer higher financial rewards for the same roles and skills (OECD, 2021[58]). Many public organisations expressed the fear of losing talents to attractive career paths, more generous salary packages and benefits in the private sector. Even if the public sector is not able to provide the same benefits as the private sector, it puts forward other important values that digital talents share. Starting with a more employee-centric approach, governments that demonstrate care for their employees' well-being and propose professional advancement opportunities usually increase job satisfaction among digital talents. This is an aspect that should be promoted at an early stage, as retention of digital talents starts from recruitment (OECD, 2021[58]). Underlining the meaningful work opportunities that the public sector presents, giving more flexibility for choosing the areas of work that interest them to keep motivation and productivity high, as well as introducing professional and personal growth packages should be seriously considered by the Government of Slovenia.

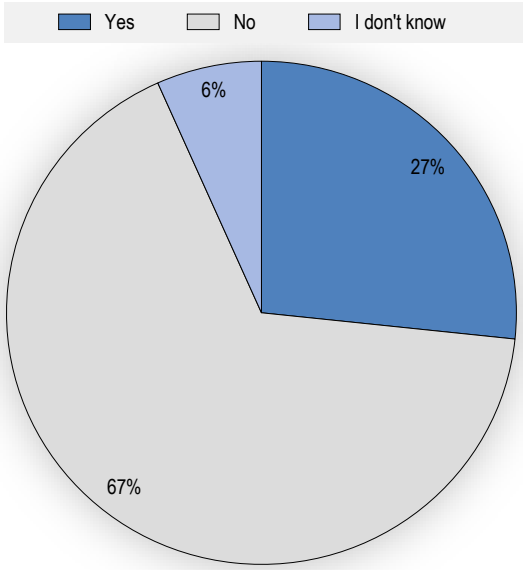
Developing and maintaining skills are a vital element to keep digital talents learning and ensure the digital transformation be a success, which can be done through formal and informal training. In terms of formal training, although there has been a lot of good work introducing the Administration Academy and training, some specific courses do not seem to be always available. This could put the momentum and motivation of learning at risk. As a result, teams are not always equipped with the necessary skills and are under-resourced; therefore they can only rely on external talents. Although outsourcing is financially more costly than hiring a new talent, due to the structuring policy, this seems to be the only alternative to innovate.

As for informal training, only 27% of public servants noted specific initiatives, such as communities of practice, networking opportunities, mentoring and skills development for data, digital and technology practitioners happening in their institutions (Figure 3.9). These initiatives aim at helping talents to continue developing and maintaining digital skills organically. Building a digital workforce loops back to creating a solid learning culture that stays after formal training and is maintained informally by sharing, testing and learning with and from each other. To reflect such a culture, Slovenia could encourage and empower its digital talents to form communities of practices to share and progress as a group sharing similar interests, regularly hold retrospective meetings where team members could discuss experiences, or organise "show and tell" to share lessons learned. This would thus create a strong in-house production culture, increase

ownership and build more independence for external talents, which in the long run would reduce outsourcing activities.

Figure 3.9. Initiatives to maintain and develop digital skills in the Slovenian government

In your institution, are there any specific initiatives, such as communities of practice, providing networking, mentoring and skills development for data, digital and technology practitioners?



Note: Based on the responses of 45 institutions.
Source: OECD (2020[5]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*. Question 20 "In your institution, are there any specific initiatives, such as communities of practice, providing networking, mentoring and skills development for data, digital and technology practitioners?"

Another tool to enhance learning and development are mobility programmes; this is particularly crucial to keep talents' motivation, productivity and job satisfaction high. Despite the fact that only about half of OECD countries have mobility programmes in place, in slightly over 75% of OECD countries, senior managers are given fixed-term appointments (OECD, 2019[66]). This may communicate that these countries value the opportunity to rotate leadership and bring in new skills and experience for this important cohort. Besides this, slightly more than 60% of OECD countries link appointment renewal for senior managers to performance assessment (OECD, 2019[66]).

Based on available data, the organisational structure of central public administrations in Slovenia does not seem to allow mobility of the workforce between policy sectors. This may also explain the fear in public sector organisations of losing talents due to not only more attractive career paths and benefits but also more job flexibility and learning opportunities in the private sector. Such public sector talent management system could thus lead to a decrease in the incentive to professional growth. To improve that, the Government of Slovenia could rethink its organisational structure by funding teams instead of projects, where individuals could focus on their career growth and are encouraged to move from one team to another to not only broaden perspectives, gain skills and experiences but also work on projects that interest them, which could be one of the rewards of good professional performances. For instance, Canada's Free Agents programme promotes work mobility and invigorate public servants to pursue work that passionate them.

Box 3.4. Canada's Free Agents programme

Canada's Free Agents programme was launched in 2016 as a new model for workforce mobilisation. It offers public servants the freedom to select work that matches their skills and interests and allows them to make a contribution that they find meaningful. It also supports managers looking to acquire top talent rapidly and easily with emerging and core skills to support their short-term project needs. Free Agents are screened for attributes that are beneficial for solving problems and skills that are in demand.

Source: Provided by the Working Party of Senior Digital Government Officials (E-Leaders) Thematic Group on Digital Talent and Skills.

To ensure the assignment of talents is suitable, it is necessary that public servants meet with their managers regularly to set achievable goals and secure a feedback loop culture to verify that they are well supported to execute their tasks successfully. Slovenia incorporates this activity into law with the Public Employees Act; the act requires superiors to monitor the work, professional qualifications and careers of public employees and to hold at least one annual interview with each employee, discussing the potential need for training to improve their work performance, professional knowledge and career development (OECD, 2021[58]). However, in addition to managing performance, there appears to be a need for more mentoring and tutoring opportunities to encourage the transfer of skills, experience and knowledge between staff. This would not only reinforce the learning culture of the organisation and strengthen the sense of belonging but also generate in-house training and cultivate loyalty, which would create greater workforce sustainability.

The practices that build a digital workforce are highly supported by a digital enabling environment, which is why reforming the environment to transform digitally is an essential step. Nevertheless, there seems to be some resistance to change. Some stakeholders observed the generational divide between the younger and the more senior workforce as being a current challenge to moving forward with the digital transformation. Although teleworking has demonstrated the value of a digital government during COVID-19, change has not been adopted by all.

However, some measures could be taken to move towards the path of a digital workforce. Given the job market options, it is necessary for governments to position themselves as attractive employers, giving candidates the chance to develop their careers while serving society. Employers may consider developing accurate job profiles and descriptions, as this gives them the chance to paint a clearer picture of the roles available. The Government of Slovenia may also consider adjusting its recruitment efforts and use creative ways to reflect the organisational culture and values, such gamification of skills assessments, as well as promoting itself as a merit-based employer. In today's environment, digital maturity and agility of a workplace are important selection criteria for strong candidates; thus re-thinking their reward systems, training packages, career paths, job mobility and mentorship plans could equally contribute to making the workplace more attractive.

4 Public service design and delivery in the digital age

This chapter analyses and assesses the situation regarding public services in Slovenia using the OECD Framework for Public Service Design and Delivery. The first section considers the context of representative and organisational politics, the history of channels, technology and infrastructure, and societal and geographic factors. The second section considers the philosophy for service design and delivery through leadership, as well as the behaviours associated with understanding whole problems, designing end-to-end services, involving the public, combining disciplines to work across organisational boundaries and delivering in an agile way. Finally, the chapter considers the availability of enabling resources and tools that help service teams to respond to the needs of their users at scale, and with pace, while retaining quality and trust.

Introduction

The digital transformation of economies and societies has changed the expectation of citizens and businesses about the services they consume. The COVID-19 pandemic suddenly made digital the default and in so doing underscored the importance of being able to move seamlessly between analogue and digital environments for family, study, work, leisure and, crucially, public services, which are a critical point of contact between a state and its citizens, residents, businesses and visitors.

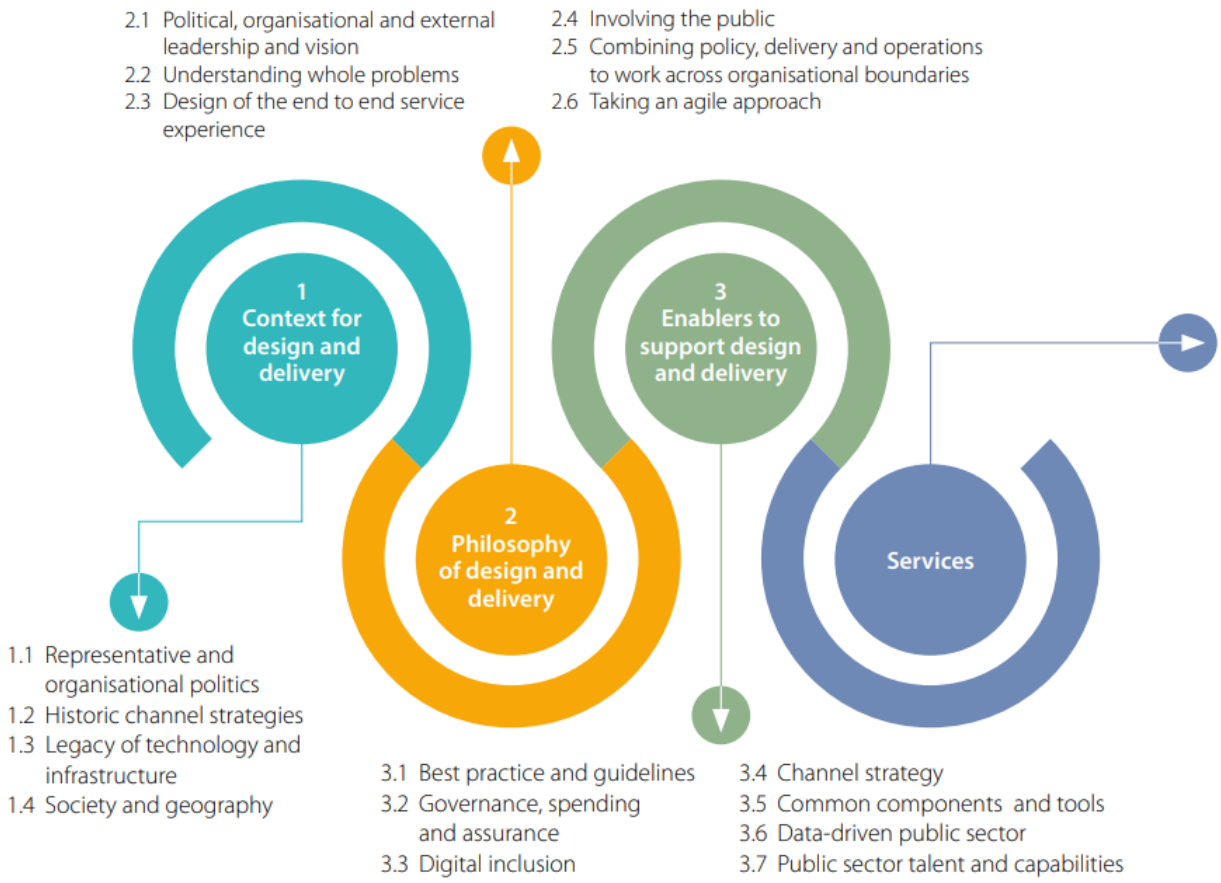
The design and delivery of public services in the digital age can improve the efficiency of public agencies, the well-being of citizens and their satisfaction with government, as well as the success of policy. Digital government is not about taking paper-based interactions and porting them to the Internet; it is about embracing a digital-by-design culture that re-engineers and re-designs services to reflect digital-era working practices, the smarter use of data and the appropriate deployment of technology (OECD, 2019[12]; Ubaldi et al., 2019[72]; OECD, 2020[14]; OECD, 2021[13]). This means replacing top-down assumptions with a more engaging and collaborative relationship that empowers service teams to explore and understand the needs of citizens, businesses and other stakeholders while equipping them with the resources and tools they need to better meet the needs they discover (OECD, 2020[73]).

Digital government is therefore a route to ensuring digital progress benefits everyone, including those who rely on face-to-face interactions. That means looking inwards, to address the context of government as it relates to culture, capability and processes, and outwards, to focus on the needs of users throughout their experience of a public service regardless of the channel through which that service is delivered (OECD, 2020[73]). The Government of Slovenia is ambitious for using the opportunities of the digital age to reduce the burden and cost of interactions while increasing satisfaction, effectiveness and trust, making the question of service design and delivery one of the priority areas for this Digital Government Review.

The OECD Framework for Public Service Design and Delivery (Figure 4.1) identifies three areas that inform and shape their quality and provides the basis for the analysis of public service design and delivery in Slovenia (OECD, 2020[73]):

1. the context in terms of representative and organisational politics, the history of channel strategies, technology and infrastructure and finally, societal and geographic factors
2. the service design and delivery philosophy in terms of leadership, as well as the behaviours associated with understanding whole problems, designing an end-to-end service experience, involving the public, combining disciplines to work across organisational boundaries and delivering in an agile way
3. the availability of enabling resources and technology that can determine the quality of experience and outcomes for citizens, businesses and visitors as well as the speed with which service teams are able to respond to the needs of their users in transforming the service landscape.

Figure 4.1. The OECD Framework for Public Service Design and Delivery



Source: OECD (2020[73]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://dx.doi.org/10.1787/b94582e8-en.

This chapter presents the existing context for service design and delivery in Slovenia and then discusses the culture and philosophy observed in consideration of this issue before finally assessing the resources that support service design and delivery in the country.

Context for service design and delivery

The ability for a country to respond to the opportunities of service design and delivery is influenced by the context in which these activities take place, specifically as in the three areas shown in Figure 4.2. Representative and organisational politics and the role of leadership in securing long-term strategic planning, financial investment and the mandate to address any blockers have a big influence on the feasibility of establishing a philosophy of service design and resourcing the enablers to support it. Further influences come from historic efforts to design and deliver public services, as the associated processes, data flows and channels can emerge without co-ordination, causing users to shoulder the burden of visiting multiple locations to address a single need. The legacy of politics, physical infrastructure, data, technology, channels, brands and supplier contracts all influence the speed and capability of a public sector in pursuing its ambitions for transforming public services. Finally, shaping the context for citizens as they access services are questions of society and geography that may mean digital inclusion, access and literacy need to be prioritised in terms of how services are designed and delivered.

Figure 4.2. The OECD Framework for Public Service Design and Delivery: Context

Source: OECD (2020[73]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://dx.doi.org/10.1787/b94582e8-en.

Representative and organisational politics

Chapter 1 discussed the Digital Government Policy Framework as the basis for measuring digital government maturity (OECD, 2020[14]; OECD, 2020[15]). It imagines an ideal where the culture of government is user-driven and open by default and built on strong digital-by-design, government as a platform and data-driven foundations with the resulting public services being proactive and inclusive. Although there is nothing controversial in this idea, which should be politically neutral, it is as reliant on political stability and commitment as any other agenda.

The governance for digital government in Slovenia is discussed more fully in Chapters 1 and 2 and highlighted the challenge of the country's changing political leadership while, more operationally, the Strategic Board for Informatics Development which had met quarterly was in abeyance. However, recent developments are encouraging. Firstly, the prime minister established a new council for digitalisation composed of the government's top information technology (IT) managers and researchers to influence strategy and help co-ordination across the Slovenian public sector with the ambition to rank within the top five in the European Union's Digital Economy and Society Index. Secondly, the new Government Office for Digital Transformation and its dedicated Minister indicate significant priority being given to this agenda at the centre. By working closely with the MPA, there is a real opportunity to give leadership to the ambition of a proactive, user-driven and open by default model of service design and delivery.

By contrast, uncertain leadership can undermine the sustainability of a transformed philosophy for designing public services and setting direction for implementing different models of delivery. This has affected the outcomes of the Public Administration Development Strategy 2015-2020 (Republic of Slovenia, 2015[7]). As Slovenia develops its future strategy it will be important for the work begun by the Ministry of Public Administration (MPA) to be further emphasised in terms of funding, authority and personnel to ensure that the service design and delivery agenda is given the long-term stability, mandate and resources to succeed.

During the COVID-19 pandemic the digital agenda offered the basis for countries to maintain normality and consequently renewed the priority of digital transformation for political leaders. Nevertheless, the leadership for digital government must be weighed carefully. On one extreme, enthusiasm and passion can make an apolitical and neutral priority a personal project with the risk that successors choose to distance themselves from something so connected to their predecessors. By contrast, the absence of such enthusiasm or knowledge can be damaging in the loss of time and absence of momentum. Therefore, in

order to remove the risk of either extreme it is important to find ways to embed a philosophy of service design and delivery (as discussed in the following section) and the skills for digital government into the mainstream functioning of government, for all politicians and public servants (OECD, 2021[13]).

In seeking long-term foundations, Slovenia has developed legal frameworks, particularly around data as is discussed in Chapter 5. Legislation can be an important contributor to cross-cutting agendas and a route to providing a central mandate, but there are drawbacks in this approach. For example, defining the specific process for a given service removes the flexibility to iterate in response to developing a deeper understanding of needs. This means changing the culture of the practice of government and makes it vital to prioritise the efforts to equip politicians and public servants with the necessary skills for digital government, as discussed in Chapter 3 (OECD, 2021[13]).

Although Slovenia is a small country and the centre can influence local government, three of the four municipalities that participated in the review reflected on a lack of initiatives to help co-ordinate and transform the quality and experience of service design and delivery at every level. Countries are exploring the possibilities of this partnership in different ways. For example, in Panama, centrally provided common platforms are available to local government and, in Spain, local governments are legally recognised as essential participants in the governance for digital transformation (OECD, 2019[10]; OECD, 2020[73]).

Although peer-to-peer activity within and across the Slovenian public sector was highlighted as an area for improvement, Slovenia does benefit from active international participation within both the European Union (EU) and the OECD. There is a clear, and important, openness to learning from other countries and drawing on their best practices to suit the Slovenian context which underpins some of the country's technical strengths. On a practical level, this means Slovenia is involved with preparing for the implementation of the EU's Single Digital Gateway as well as ongoing efforts to enhance the cross-border interoperability of services, data and technologies such as digital identity (see Box 4.1).

Box 4.1. European Union initiatives to enable cross-border access to services

Single Digital Gateway

The Single Digital Gateway is intended to be a single point of access to information, procedures and assistance services online. The gateway will facilitate online access to the information, administrative procedures and assistance services that citizens and businesses need to live and work in another EU country. Citizens and companies moving across EU borders will easily be able to find out what rules and assistance services apply in their new residency. By the end of 2023 at the latest, they will be able to perform a number of procedures, like registering a car or claiming pension benefits, in all EU member states without any physical paperwork.

Digital identity

In order to enable cross-border living as envisaged by the Single Digital Gateway it is necessary to establish trust services and digital identity. Within the EU, the Regulation on electronic identification and trust services for electronic transactions in the internal market (eIDAS Regulation) attempts two things. Firstly, it is designed so that people and businesses can use their own national digital identity solutions to access public services available online in other EU countries. Secondly, it creates an internal market for trust services within Europe by ensuring that they will work across borders and have the same legal status as their traditional paper-based equivalents.

Source: European Union (2018[74]), *Regulation (EU) 2018/1724 establishing a single digital gateway to provide information, procedures, assistance and problem solving services,* https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=uriserv:OJ.L_.2018.295.01.0001.01.ENG; European Union, (2014[75]), *Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market,* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0073.01.ENG

Legacy of channels, technology and infrastructure

The second area of activity that shapes the context for the design and delivery of public services is the legacy of channels, technology and infrastructure.

Countries such as Brazil, Ireland, Greece and the United Kingdom, among others, are increasingly pursuing strategies in the design and delivery of services that unify the user experience and rationalise their public sector web estates into single government domains. In the OECD Digital Government Index, Slovenia identified a national single website to be the most relevant channel for delivering services but, unlike the examples of the named countries, this are in fact four different national channels: all corporate government information is being consolidated onto GOV.SI but the single entry point for citizens to access services is eUprava, with SPOT (*Slovenska Poslovna Točka*) acting as the equivalent for businesses and OPSI (*Odprti Podatki Slovenije*) fulfilling this function for Open Government Data.

The review observed that the combination of these four sites is simplifying the user experience for accessing services. However, the strategy for distinguishing between corporate information, citizen services, business services and open data, with signposting between them as necessary, does still leave citizens negotiating multiple domains and different website designs. Although much corporate information has now migrated to GOV.SI, there are legacy services, information and micro-sites served through older domains and infrastructure. The national website may be the most important channel, but there is ongoing relevance for sector-specific sites during this transitional period including those providing information about companies (http://evem.gov.si), taxes (http://edavki.durs.si), employment (http://www.poiscidelo.si) and health (http://zvem.ezdrav.si), as well as business registers (https://www.ajpes.si/prs/) and the resources to support interoperability (https://nio.gov.si/nio/). Against this backdrop, it was encouraging to hear an expectation that welfare and health would be consolidated from the Pension and Disability Insurance Institute of Slovenia (*Zavod za pokojninsko in invalidsko zavarovanje Slovenij*, ZPIZ) and the National Institute of Public Health (*Nacionalni inštitut za javno zdravje*, NIJZ). Nevertheless, fully addressing the legacy of institutional or sectoral channels will need continued technical and strategic investment.

The review highlighted that legacy technology platforms and systems and the reliance on external suppliers with the specialist skills to develop them were big constraints to being able to adopt an agile approach to developing services in an iterative fashion. Migrating from systems built up over time is not easy and will require targeted funding and explicit commitment to deliver in a way that not only meets the needs of citizens but works for internal users too as seen in the United States experience discussed in Box 4.2.

Box 4.2. United States' Electronic Immigration System

The paper based immigration system in the United States requires applicants to complete 1 of 94 forms before sending it to different locations according to the nature of the application. In 2005, the U.S. Citizenship and Immigration Services (USCIS) decided to take the analogue process and digitise it as the Electronic Immigration System (ELIS).

However, ELIS was built on the e-government premise of documenting an analogue process, digitising it, and considering the problem solved. Putting something online has upfront appeal, but simply making a digital replica of a process does not make it better, especially if it fails to acknowledge the user experience of public servants. Therefore, while the ELIS project spent a lot of time thoroughly documenting business processes and data flows, little effort was put into understanding how immigration officers worked; in the end only two forms were available online.

This exercise was built on the assumption that digital would always be unquestionably better than paper. But what user researchers discovered was that paper was actually superior for some of the nuanced

tasks involved with providing the service. In failing to understand the overall experience of immigration applications the project overlooked the needs and behaviours of USCIS employees.

Part way through the project a change was made to reflect a more user-driven approach. However, decisions and omissions made in the first phase limited progress and saw USCIS employees develop work-arounds to make ELIS usable. As such, legacy overheads are not necessarily caused by old software – modernisation efforts approached in the wrong way can lead to decisions or strategic direction that constrain attempts to transform the experience of a particular user need.

Source: Dawson McGuinness and Schank, (2021[76]), Power to the Public, https://press.princeton.edu/books/hardcover/9780691207759/power-to-the-public.

In addition to technology and contractual relationships, existing legislation can also be a barrier to digital transformation by stipulating a requirement for in-person or paper-based processes. This makes it important for the eUprava and SPOT teams to work with the Government Office for Legislation and other ministries to identify problematic legislation and increasingly adopt an agile approach modelled on the "Rules as Code" model to allow for a more fluid relationship between the design of services and its associated legislation (Mohun and Roberts, 2020[77]).

Legacy challenges are not limited to the digital experience of consuming public services. Public services are not only provided online and efforts to introduce a "digital-by-default" approach that removes offline access can exacerbate digital divides and fail to respond to the needs of particular sections of society. Slovenia operates local administrative outlets for numerous different government departments and agencies, while municipal governments offer their own solutions too. Prior to the COVID-19 era, these physical services were a highly appreciated part of the infrastructure for the public sector, as citizens knew that they could arrive in person and be helped with minimal friction and no cost. This is particularly relevant for services where identification is required given the early adoption of digital identity by public services and citizens in Slovenia. The contractual, organisational and practical implications of administering and, where appropriate, consolidating and transforming services accessed through all service locations needs to be considered when addressing the overall strategy for designing and delivering public services.

Society and geography

The final area that shapes the capacity of countries to meet the needs of their users through the design and delivery of public services is the societal structure and geography of a country. As has been discussed in previous chapters, the size of Slovenia and its population offers both benefits and challenges to addressing the digital transformation of government, particularly with regards to the question of scaling responses. While its small size offers the potential to more rapidly embrace and cascade solutions throughout the public sector, it can be a challenge to access sufficient resources (whether financial, technical or human). One response to these challenges is an enthusiasm for Slovenia to participate actively in conversations at the European Union level where it is possible to benefit from the combined knowledge and insight of the member countries.

Although Slovenia is not a large country, it does not yet enjoy total high-speed Internet coverage, which clearly presents certain challenges from a digital inclusion point of view. There are 235 000 households in Slovenia but at the time of the review, 20 000 of them were not able to access high-speed Internet connections. EUR 30million of funding has been allocated to address rural connectivity and, despite some challenges with identifying suppliers, the ambition is that by 2022, 80% of properties will be within 200 metres of high-speed Internet infrastructure.

When governments design public services, they need to acknowledge the needs of society as a whole and not only target easy-to-reach audiences. The overall level of 21st century skills in society is an important

foundation for efforts to achieve digital transformation as discussed in Chapter 3. This makes it important that Slovenia continues to invest in access for those who choose not to use digital technologies otherwise digital inequalities can be increased by "empowering the already empowered". This means having to reflect the needs of more difficult to reach audiences or those situations, such as cross-border delivery, that introduce greater complexity. The ZPIZ experience discussed in Box 4.3 shows that, while the majority of a user base may still continue to access services in paper, there are still opportunities for digital transformation that enable an omnichannel approach of accessing services through any channel, at any point in the process. Services such as these which involve a more elderly user base are being given huge support by the Slovenian government's partnership with Project Simbioza. This programme encourages intergenerational co-operation, volunteering, lifelong learning, social entrepreneurship, and socially responsible, social and ethical activities and has made a significant contribution to digital literacy across the whole of Slovenian society.

Box 4.3. Digital as the basis for both paper-based and online interactions

In 2018, a change to the methodology for calculating the value of pensions to include payments received from foreign pension schemes meant ZPIZ had to update the data held on 125 000 beneficiaries distributed across 50 countries.

ZPIZ used its existing pension services platform as the basis to simplify this exercise. The approach involved developing forms in multiple languages and providing solutions that would work digitally and in person as well as using QR codes to connect physical paperwork with the relevant online aspects.

However, the average age of those registered to use the ZPIZ platform was 49, whereas the average age of those needing to calculate their average annual allowance was 71. This meant that inevitably the vast majority of affected users would use the paper process and so internal systems needed to be developed to address the volume of physical documentation involved.

Nevertheless, ZPIZ used this as an opportunity to encourage wider adoption and saw around 10% of all applications completed digitally through the e-form. The average age of those beneficiaries who did so was 70, showing an important initial achievement in terms of helping new audiences acquire the skills to work in a digital age.

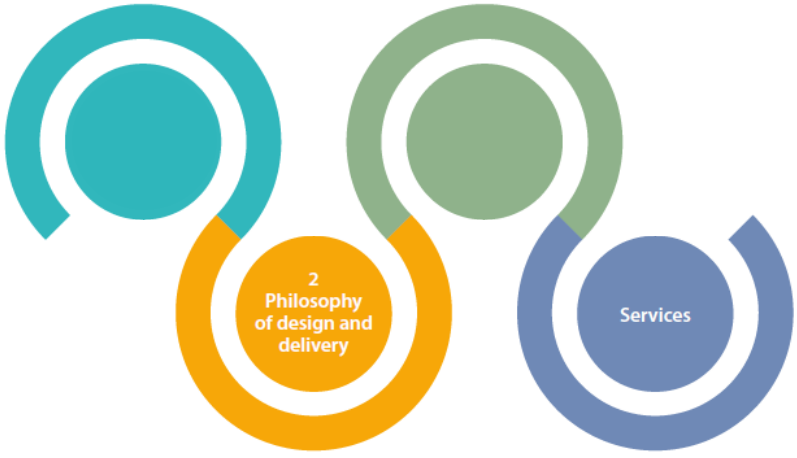
A final area to consider is the relationship between other sectors of society and the public sector, whether academia, civil society or the private sector. The survey of institutions indicated that only 20% of public sector bodies in Slovenia actively engage either academia or civil society in the governance of data, digital and technology projects. However, although there is a successfully established culture of transparency, recognised by the Right to Information Index placing Slovenia 5th globally (Global Right to Information, 2021[78]), the current assessment of CIVICUS (CIVICUS, 2021[79]) about the overall health of civic space was downgraded from "Open" to "Narrowed" in 2020, reflecting measures that have limited funding and access to non-governmental organisations as well as increased restrictions on press freedoms.

In contrast, the work of the private sector appears to be more actively engaged with the survey of institutions, indicating that for this sector the level of engagement is closer to 40%. Digital government has a big impact on the ease and effectiveness of "doing business". The World Bank's Doing Business Index (2020[80]) ranks Slovenia as 37th globally (and 23rd within OECD countries), and so there continue to be opportunities for the private and public sectors to work more effectively together in order to stimulate the economy and better meet the needs of all those in society. One of the most long-standing interventions in this respect is the work of Stop Bureaucracy (stopbirokraciji.gov.si) that, since 2005, has provided a single point of access for all stakeholders to contribute their ideas for improving services in the context of legislation or the business environment.

Philosophy of service design and delivery

The second aspect of analysing and therefore understanding how to better meet those needs is the philosophical approach to service design and delivery and the extent to which it reflects the six ideas shown in Figure 4.3. Good design does not happen by accident and nor, for that matter, does bad design – leadership cultures determine whether or not the design of services is valued or not. Ultimately, if little effort goes into the design of a service and users get confused, make mistakes, or decide to abandon their efforts entirely, their need has not been met, and there is an increase in the burden on citizens to deal with the issue they had in the first place.

Figure 4.3. The OECD Framework for Public Service Design and Delivery: Philosophy

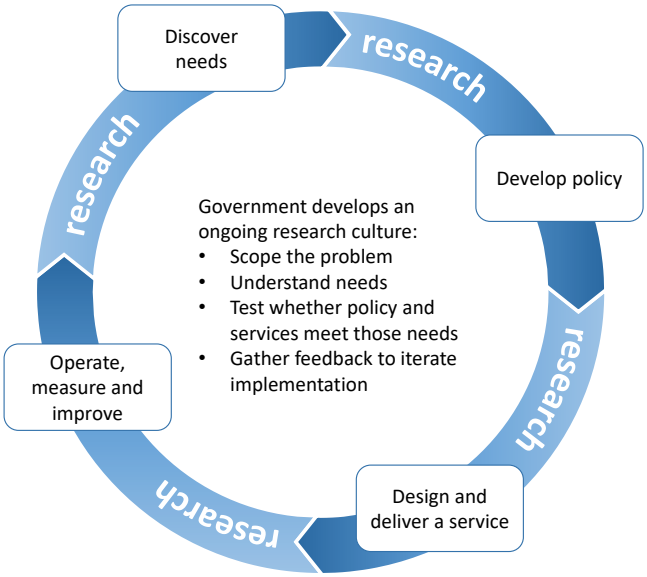


- Leadership and vision
- Understand whole problems
- Design end to end service experiences
- Involve the public
- Multi-disciplinary delivery across organisational boundaries
- Take an agile approach

Source: OECD (2020[73]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://dx.doi.org/10.1787/b94582e8-en.

The most effective citizen experiences should therefore lead users through simple to complete processes that, where possible, re-use data to anticipate and proactively address aspects that might otherwise involve further interactions. This requires understanding the whole problem, which means working with those needing to use the service. It also means bringing policy, delivery and operations together in diverse, multi-disciplinary teams to ensure a common vision and co-ordinated development process, so that what might otherwise be silos works as a single team, focused on solving a particular problem together. Finally, it becomes important to adopt agile approaches that embrace uncertainty, continuous learning and improvement in order to keep adding value to the public and keeping them engaged (Figure 4.4). This can significantly contribute to the responsiveness of public services to the needs of the whole population and help to secure a positive perception of the government's capacity to represent the needs of all.

Figure 4.4. An agile approach to the interaction between government and the public during policy making, service delivery and ongoing operations



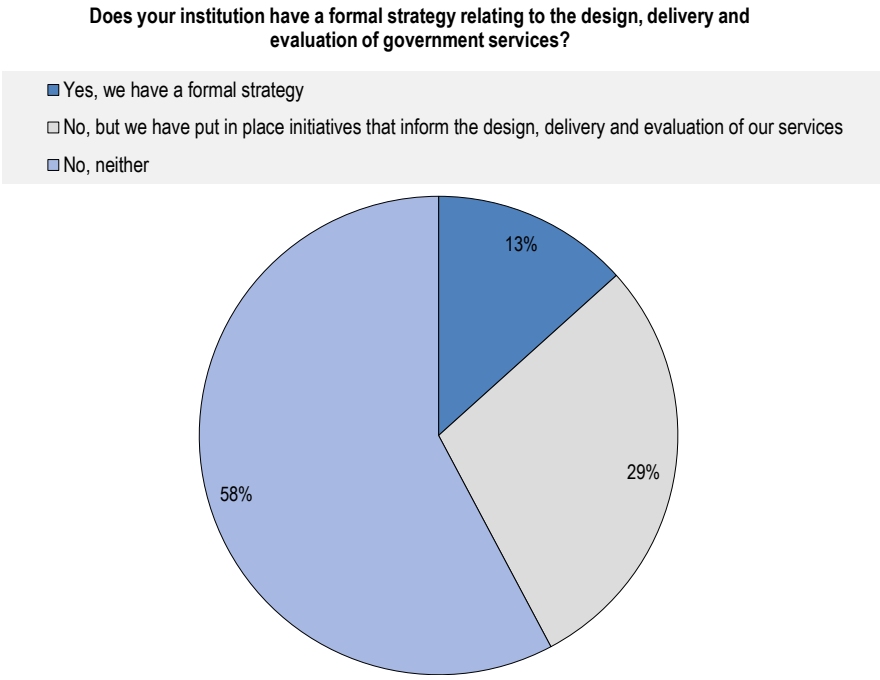
Source: OECD (2020[73]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://dx.doi.org/10.1787/b94582e8-en.

Providing leadership and setting vision

The review heard that while there is vocal enthusiasm to "make services simple", actually embedding this into the fabric of government is proving harder to achieve. As highlighted in the *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[81]), leadership and political commitment are essential for the success of digital government efforts and this is true for service design and delivery. It is important for elected representatives, their appointees and senior government officials to share a vision for transforming services so that they are proactive, user-driven, and maximise the use of data and modern technology. That transformation relies on adopting a philosophy of service design and delivery and modelling the associated good practices (OECD, 2020[73]; OECD, 2021[13]). On this front the Public Administration Development Strategy 2015-2020 provided a strong statement of intent with its focus on inclusive, accessible and proactive government (Republic of Slovenia, 2015[7]).

Unfortunately, as discussed in earlier chapters, the leadership for digital government has been impacted by wider political change. The current period of time represents a more settled opportunity to accelerate some of these ideas and in doing so will take encouragement from the organisations that are advocates for a service design culture. However, as Figure 4.5 shows, they are among the minority, as only 19 of the 45 organisations surveyed during the review either have a formal strategy relating to the design, delivery and evaluation of government services or have initiatives in this respect. These organisations are taking their inspiration from the MPA but although they are responsible for a wider range of valuable enabling resources (as discussed later in this chapter), Slovenia has no model (whether formal or informal) for assuring quality against a service standard or equivalent, making the approach entirely reliant on local leadership and gradual osmosis.

Figure 4.5. The design, delivery and evaluation of government services in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version,* Question 34: "Does your institution have a formal strategy relating to the design, delivery and evaluation of government services?"

Understanding whole problems

To really transform a service, governments need to avoid focusing on individual interactions in isolation from understanding a whole problem. Neglecting to consider all users and the whole need can lead to addressing only a part of the issue and failing to unlock the potential that was imagined. To design services that fully respond to the needs of users, it is critical to map and understand how a need is currently being met and by whom. Instead of working from desk-based assumptions, understanding a whole problem gives a multi-faceted view of the problem as it really is and underpins the design response, whether that requires a fundamental redesign or only minor tweaks to the way government works.

Establishing a government-wide culture of user research committed to user experience helps to ensure an understanding of how different interventions contribute to, or detract from, the desired policy outcome. Taking this approach is important because if a service (whether newly developed or existing) is not immediately understood or seen as useful or trustworthy, people can get confused, make mistakes in their submission, or decide not to use it. When that happens, it increases the government's efforts to resolve any issues as well as inconvenience to the citizen in dealing with their initial need.

The review observed inconsistency with regards to the priority of user research in the design of services. Although eUprava and SPOT demonstrate an intent to simplify the entry point to government as a gateway to addressing whole problems, such as the one discussed in Box 4.4, limitations were observed in the organisational capacity to emphasise user research and in the inter-organisational co-operation to solve whole problems across organisational boundaries. Nevertheless, the Stop Bureaucracy initiative demonstrates that it is possible to address what may seem to be intractable problems. Stop Bureaucracy is a vehicle for citizens and businesses to express their frustrations and then see government work together in order to address them. Since its inception Stop Bureaucracy has saved an impressive EUR 350 million

which reflects a 25% reduction in the identified levels of administrative burden. However, this team and the work of eUprava and SPOT did not appear to be as co-ordinated as they might. One approach could be to include Regulatory Impact Assessments (informed by the OECD's Best Practice Principles (OECD, 2020[82]) as part of the user research process to understand and identify the whole problem and all its implications for users and the government.

Box 4.4. Transforming student travel by addressing the whole problem in Slovenia

Students can apply for a single, subsidised ticket to use any mode of transport to travel from their place of residence, to their place of study. Applications for this ticket are made through eUprava before the academic year.

After the student authenticates with the service, their data is automatically obtained from the country's base registers so all a student needs to do is provide their starting point and destination.

Once these are confirmed, the student receives a code with which they can buy the ticket from the relevant transport provider. This is then loaded onto their travel card and can be used across transport providers to cover the whole journey.

Even though there is significant internal collaboration required between different parts of the public and private sectors for the student, it is a relatively seamless experience enabling them to travel from home to study with a minimum of cost or effort.

Designing services from end to end

Over time, public services can evolve in ways that lead to fragmented user journeys across different parts of government. Whether because "multi-channel" strategies have seen organisation specific digital or telephone channels developed separately from one another or because some organisations have closed their physical locations and others have not, users can find themselves having to visit multiple locations in order to address a particular need. This may also mean that interactions begun online cannot be completed in person and vice-versa. Transformed public services should be approached in a channel-agnostic fashion and understood as follows:

- from when someone first attempts to solve a problem, through to its resolution (end to end)
- on a continuum from user experience to the processes for back-office staff (external to internal)
- across any and all of the channels involved (omnichannel) (OECD, 2020[73]).

Slovenia has been exploring the role of the Internet in delivering services for many years, and this is visible in the strong technological underpinnings for services in the country (as with the value of base registers referred to in Box 4.4). However, the review observed a resulting technology-driven, rather than user-driven approach to solving problems with conspicuous gaps in both language and practice of working to understand the needs and experiences of users.

GOV.SI represents a significant step towards consolidating the myriad of organisational websites and offering a single point of entry into the corporate information of government, with over 100 organisations (and counting) now served by the single domain's common web infrastructure as well as content informed by a common editorial policy. This corporate information sits alongside dedicated resources for citizens (eUprava) and businesses (SPOT) operating as separate entities. However, these three sites are not the only entry points to services in Slovenia, as several sectoral and institutional sites continue to exist. Therefore, while the current strategy does help to rationalise user journeys, it could introduce challenges in resolving the end-to-end process for users as multiple entry points to government mean the experience for citizens is not as clear as it could be.

It is important to recognise that discussions about public service design and delivery in the digital age do not focus only on digital steps but remain mindful of the offline and in-person steps that are inevitably involved (see Box 4.5). One approach that can help to understand the landscape of a country's services and the channel mix involved with providing them is a user research-based service catalogue mapping the data flows and user journeys from one service to another, identifying the channels through which a service is provided and measuring performance with both quantitative data (such as cost or frequency of access) and qualitative insights into the experience of users. In Slovenia, two-thirds of organisations provide services and 22 of them have their own catalogue of services, which creates an opportunity for the MPA and others to work together and create a common understanding of services across the country. This reference can help transform the overall experience of government by preserving and rationalising access while identifying ways for digital and non-digital channels to work in harmony.

Box 4.5. Understanding the end-to-end user experience, regardless of the channel that is involved

"Life events" are a popular way of thinking about the highest-profile moments of interaction between citizen and state where multiple government actors might be involved. The most effective methodologies can be applied beyond the issues considered as "life events" and incorporate offline interactions as well as steps that involve non-public sector actors too.

The United Kingdom's GOV.UK team developed a step-by-step model for providing information to users. By acknowledging all the elements involved between identifying a need and it being met, GOV.UK not only helps the user understand everything they need to do but can provide direction to address the internal structure of government in pursuit of more proactive and effective solutions.

Some services, such as learning to drive a vehicle, will always involve offline steps or have elements that fall outside the responsibility of government but they all still need to be understood by a user.

Note: For an example of the step-by-step model visit https://www.gov.uk/learn-to-drive-a-car
Source: Dub and Acosta (2018[83]), "Building a better GOV.UK, step by step", https://gds.blog.gov.uk/2018/10/17/building-a-better-gov-uk-step-by-step/

Involving the public

The *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[81]) identifies the need to encourage engagement and participation of public, private and civil society stakeholders in policy making and public service design and delivery. It is complemented by the *Recommendation of the Council on Open Government* (OECD, 2017[84]) which calls on governments to move towards a "culture of governance that promotes the principles of transparency, integrity, accountability and stakeholder participation in support of democracy and inclusive growth".

In the Digital Government Index, Slovenia ranked highly for the "User-driven" (8th) and "Open by default" (7th) indicators. This openness to involving the public was evident in producing the Public Administration Development Strategy 2015-2020 (Republic of Slovenia, 2015[7]) with that process being open to all stakeholders within, across and beyond levels of government. Further support to these efforts is given by the Digital Coalition, a non-government group actively involved with the Governmental Council of Informatics Development.

Slovenia also has a good track record in providing opportunities for the public to shape the activity of government. These include the previously mentioned Stop Bureaucracy as well as I Propose (predlagam.vladi.si) offering a single point through which to communicate and send opinions, ideas,

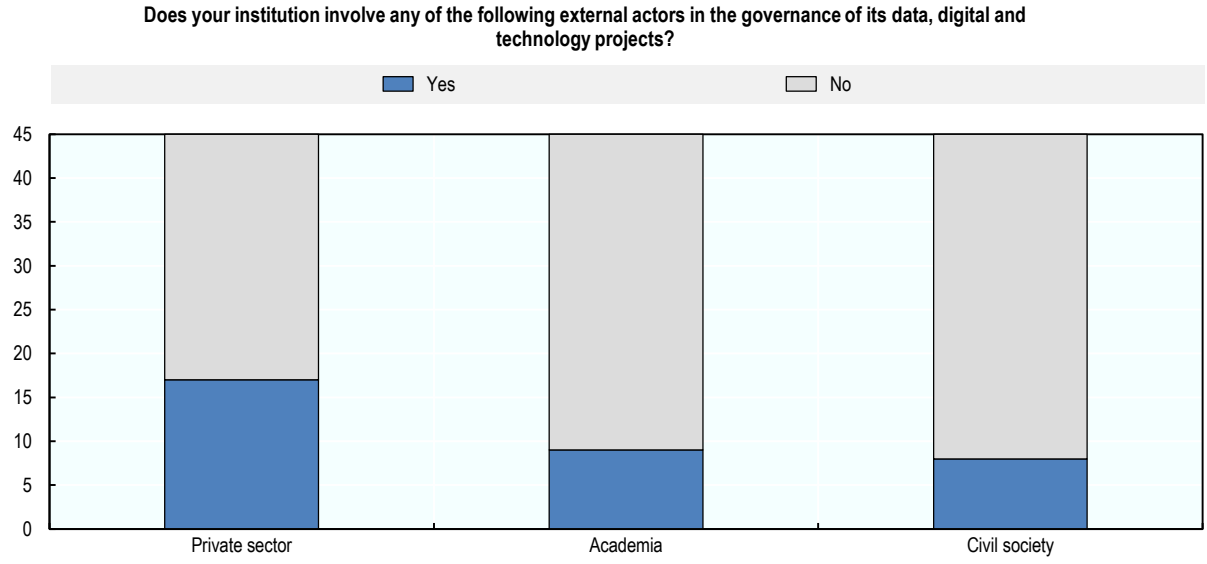
remarks or complaints about government services. Meanwhile, eUprava houses the e-Democracy content for the country including the route for the public to be able to provide feedback on proposed legislation and express their satisfaction with government services.

Indeed, the established transparency of "open by default" efforts in Slovenia is evident in the strength of the Open Government Data (OGD) agenda, with Slovenia ranking 10th in the 2019 edition of the OECD OURdata Index (OECD, 2020[16]). These efforts, discussed in more detail in Chapter 5, provide a template for how openness and engagement can be carried out from a legislative, governance, oversight and operational point of view. Alongside the rules, guidelines and standards and OPSI, the national open data website, OGD efforts have included dedicated websites publishing information about government procurement and public sector salaries as well as encouraging the OGD community through events such as hackathons.

At an organisational level, the MPA's Guidelines for Information Solutions Development (Republic of Slovenia, 2018[85]) encourage teams to be proactive in terms of their design and feedback processes as well as requiring end users to be involved with the design and delivery of services. However, these guidelines are not mandatory and the execution of different organisations is not monitored or assessed and, therefore, relies on organisation specific activity to reflect their provisions.

There is no objection to the idea of involving the public in the process of transforming services in Slovenia but there are challenges to making this the default approach across the whole public sector. Indeed, despite the high "user-driven" and "open by default" scores in the Digital Government Index, the institution specific survey indicated that the majority of organisations were not engaging external stakeholders whether in terms of the private sector, academia, or civil society as seen in Figure 4.6. Among those that were, the examples were of traditional forms of engagement in terms of public communication, organising working groups, or engaging private sector suppliers to build consensus over technical standards and specifications.

Figure 4.6. Involvement of external actors in the governance of digital, data and technology projects in Slovenia



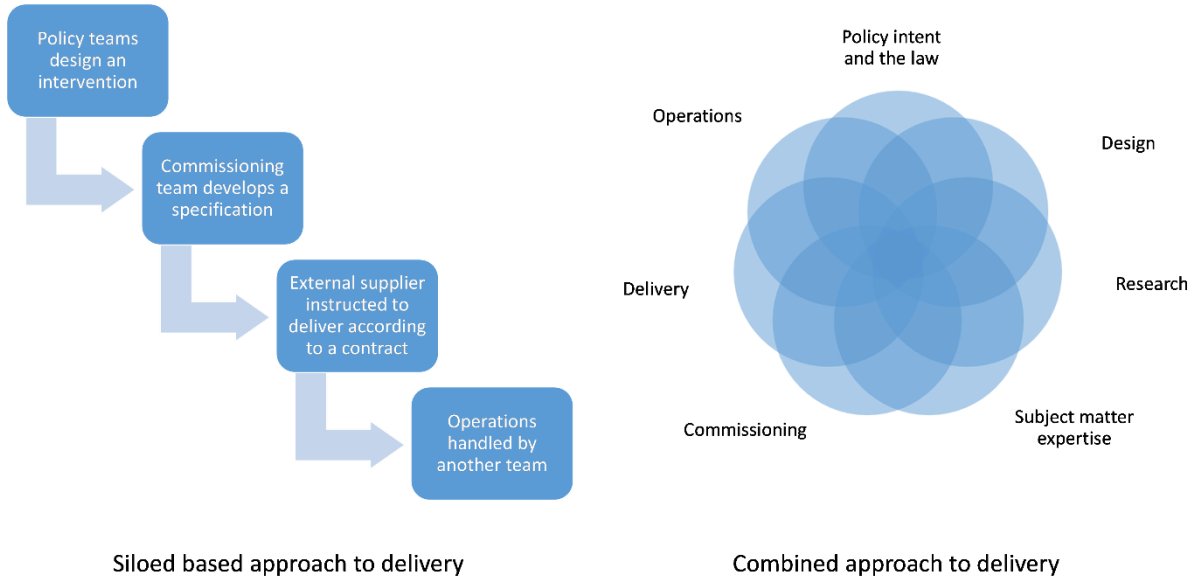
Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version,* Question 36: "Does your institution involve any of the following external actors in the governance of its data, digital and technology projects?"

Nevertheless, there were some more impressive examples expecting greater involvement from the public. The Information Security Administration of the Republic of Slovenia (Uprava za informacijsko varnost) had used design sessions and public consultation to develop the Cyber Security Strategy (Republic of Slovenia, 2016[20]) and the Information Security Act (Republic of Slovenia, 2018[21]) while SPIRIT, the Slovenian Business Development Agency, reported developing new services through design sessions with internal colleagues and focus groups with external users to understand their needs. The most notable example of ongoing co-delivery came from the Office of the Republic of Slovenia for Youth (Urad Republike Slovenije za mladino) and the example of MLAD.SI which since 2011 has been a central resource for the youth sector. Organisations and young people, overseen by an editorial board led by the MaMa Youth Network, maintain the content of the site.

Combining policy, delivery and operations to work across organisational boundaries

Figure 4.7 shows two paradigms for delivery. On the left, the process starts with 1) policy teams developing an approach before handing it to 2) the commissioning team that specifies deliverables for 3) an external supplier who, in turn, provides the "finished" service to 4) a fourth team to operate it. Taking policy decisions in isolation from delivery realities and supported by a separate operational model is the perfect recipe for silos and disconnection, causing problems for the people accessing the service and for government itself. Badly designed public services meet neither political objectives nor the needs of the public.

Figure 4.7. Two paradigms of delivering policies and services

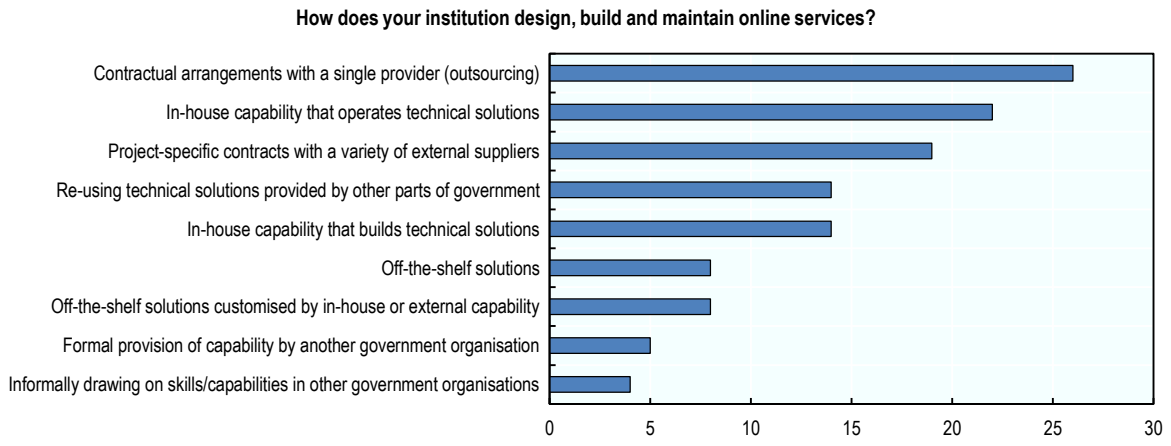


Source: OECD (2020[73]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://dx.doi.org/10.1787/b94582e8-en.

As discussed in Chapter 3, Slovenia is limited in its ability to develop its internal digital capabilities. Figure 4.8 shows that this has the effect of increasing reliance on external actors, which makes siloed-based delivery more likely. In one organisation whose systems provide support to more than 70% of Slovenian households, the internal digital team numbered just 13 and, while they were responsible for transformation, most of their time was spent on procurement and administering the relationship with external vendors. The majority of Slovenian organisations (26) outsource their delivery capability while 19 organisations have project-specific contracts with suppliers. Several organisations use external capability to build a service but hand the operation and maintenance over to in-house teams. Without an effective

strategy for minimising the gap between policy, delivery and operations, there are risks to the quality of services and the capacity for government to iterate and improve over time.

Figure 4.8. Institutional approach to designing, building and maintaining online services in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version,* Question 36 "How does your institution design, build and maintain online services?"

The right-hand side of Figure 4.7 displays the digital government approach that recognises the importance of melding different disciplines together throughout the implementation lifecycle to ensure a common vision and co-ordinated development process. Transformed public services rely on diverse, multi-disciplinary teams from different backgrounds and with different perspectives working across organisational boundaries (as seen in the example from Argentina in Box 4.6). Taking a cross-discipline approach and involving those from across the public sector helps to better understand the needs of all users.

Box 4.6. Redesigning the Disability Certificate in Argentina

In Argentina, an estimated 3 million people have some disability. To provide access to rights and benefits, a Disability Certificate (Certificado Único de Discapacidad, CUD) is required. However, the process for obtaining a CUD was difficult and could take up to seven months.

The National Agency for Disability and the team at Mi Argentina, Argentina's platform for providing citizen centred services, worked together on a rediscovery and transformation of the service. This multi-disciplinary team consisted of software engineers and designers as well as psychologists, political scientists, anthropologists and sociologists. Their intent was to not only simplify and speed up the process but by coming alongside people at a difficult time provide them with the service they deserve.

A wizard now guides citizens through their application rather than requiring them to attend a physical meeting to establish what documentation is required. The physical meeting is still required but an online appointment system schedules the interview, meaning that users can avoid hours of waiting in queues. Finally, the service proactively provides notifications in the citizen's digital profile ensuring the user knows when the CUD is expiring and offering to help with its renewal.

Developing the solution was only part of the challenge because the solution needed to work with the 453 separate Medical Evaluation Boards responsible for certifying a disability. This required the team

to address the relationship between central government and the MEBs, support the practicalities of connectivity and focus on developing the necessary skills through training.

Source: OECD Observatory of Public Sector Innovation (2018[86]), *Redesign of the Unique Certificate of Disability*, https://oecd-opsi.org/innovations/certificado-unico-de-discapacidad-cud-redesign-of-the-granting-service-of-the-unique-certificate-of-disability/

As discussed in Chapter 3 the skills situation in Slovenia requires strategic commitment to make it easier to assemble multi-disciplinary teams and collaborate across the public sector. Coalition government is a hallmark of Slovenian democracy and, during the review, the team working on this peer review heard that sometimes the circumstance of a coalition may mean certain ministries have less interest in the coherence of government as a whole, preferring instead to focus on their own, narrower agenda. This can lead to gaps when it comes to projects involving multiple stakeholders. The OECD Framework for Digital Talent and Skills in the Public Sector (applied to Slovenia in Chapter 3) proposes that governments recognise "service professionals" whose role is to take ownership of the end-to-end user experience and wield the political, administrative and financial authority to bring the necessary actors around the table to address a whole problem (OECD, 2021[13]). To complement these roles, an organisation could be given the responsibility of co-ordinating oversight and governance. The MPA would be well placed to play this role initially but over time the expectation could be that defined guidelines and roles could see one of the organisations involved in the specific service taking that responsibility.

To support this process the 24 surveyed organisations which indicated that they co-ordinate with other institutions could be encouraged to continue doing so; at the same time, steps could be taken to address the barriers that limit cross-government collaboration for the other 21. Initiatives such as the United Kingdom's Digital and Technology Leaders Network provide a model for how to build a collective vision for delivering great digital services with the right technology (UK Cabinet Office, n.d.[87]). Through training, socialisation and peer-to-peer support, a coherent and collaborative approach to the design and delivery of public services fit for the digital age can become second nature for government as a whole, rather than a niche pursuit of digital and IT professionals.

Delivering in an agile and iterative way

The final aspect of the philosophy for service design and delivery in the digital age is to adopt an agile approach to the ongoing iteration and delivery of the services that are produced (in line with the model featured in Figure 4.4). This approach contrasts with more traditional "waterfall" methods that accompany the siloed model of delivery referenced in Figure 4.7.The Agile methodology embraces uncertainty and operates on the expectation of continuously learning and improving in order to prioritise adding value to users. By starting small with phases designed to build understanding through exploration, teams can research, prototype, test and learn about the needs of their users before committing to building a real service, allowing them to fail quickly and correct course in response to what they find. Successfully delivering in this way relies on ensuring that the culture of approaching digital government reflects leadership and vision, understands whole problems, designs services from end-to-end, involves the public and delivers in a multi-disciplinary and collaborative fashion.

As has been noted, many public services in Slovenia are provided through commercial relationships with external suppliers. Drawing on external technical expertise can be an attractive route to offsetting capacity constraints and limits on the availability of internal skills, in particular to increase capacity in the short- and medium-term. However, this can lead to an unhelpful separation between policy, delivery and operations which can limit the capacity to iterate and improve a service. This observation has shaped the MPA Guidelines on Procuring IT Solutions that advise using the procurement process to prioritise agile solutions and ensure an inclusive approach to testing services (Republic of Slovenia, 2017[88]). Where external suppliers are involved it can be beneficial to explore ways to work closely together, whether through sharing offices or virtual workspaces, as has been seen to the benefit of the GOV.SI and e-Uprava teams.

Across the philosophical underpinnings for service design and delivery in Slovenia, there is much to commend in terms of both the efforts the MPA has made to introduce different ways of thinking to the government and the important results being experienced in places where these ideas have taken root. However, overall, there is generally patchy progress when set against the overall ambition and the challenge remains how to disseminate these ideas, culture and practice throughout the government as a whole, to become the default and not the exception.

Enablers to support service design and delivery

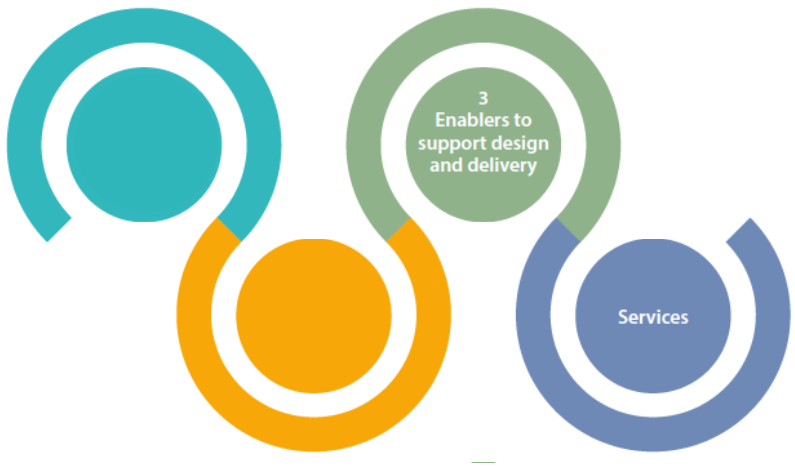
The transformation of public service design and delivery means redesigning public services. At the level of a single service, this may be an achievable ambition but, extrapolated across the hundreds of services provided by government, it is not. Governments, particularly of small countries such as Slovenia, do not have the time, money or human capital to work through each service individually. Therefore, part of the solution for accelerating this process lies in reusable resources and tools. There is a risk in assuming that the answer is solely a question of technology to speed up how an offline process can be made available online. However, this would proliferate a culture of e-government, not digital government, and see no associated transformation of the vision to better meet citizen needs, no matter how high profile (or otherwise) the service in question.

Striking this balance between practical tools and culture-shaping resources is the starting point for the idea of "Government as a Platform", on which measure Slovenia ranks a respectable 11th in the Digital Government Index (OECD, 2020[14]; OECD, 2020[15]). Government as a Platform ecosystems help teams to focus on things that are unique to their users rather than devoting effort to challenges others have already addressed. A measure of domestic success is that these resources are used at scale, at every level and in every sector of government with minimal central intervention. Developing this ecosystem of enablers for service design and delivery is particularly important for the smallest organisations in a country that would otherwise be at the end of the queue for sufficient and dedicated funding or capability to carry out "true" digital transformation. As such, the best examples of Government as a Platform ecosystems are not restricted only to public servants but are open to all those working on designing, implementing and operating policy and the services it produces, whether from the private sector, civil society or elsewhere.

Seven different areas (see Figure 4.9) have been identified as contributing to helping to not only effect a change in culture and philosophy but accelerate and transform the capacity for designing and delivering public services that meet user needs. This chapter will conclude by considering the situation in Slovenia as it concerns best practices and guidelines; governance, spending and assurance in the context of service design and delivery; the channel strategy; the common components and tools; and digital inclusion. The discussion of data can be found in Chapter 5 and the discussion of talent and skills in Chapter 3.

As Slovenia considers its new digital strategy, there is a vital moment to reflect on short, medium and long-term ambitions for realising the potential in each of these areas. Above all, the strategy needs to acknowledge and address the need for the strategy itself in terms of authority, mandate and resources to develop an interconnected ecosystem, and not a collection of discrete individual parts. Slovenia is a small country where the centre can exert power, but there was a sense during the review that this influence had not been used as effectively as it might – one earlier attempt at establishing a shared service model for technology was criticised because the benefits promised on paper were replaced by frustration and disappointment in the eventual outcome. The MPA has taken the lead in developing resources to support transformation but there were calls from participants in the review to move beyond an advisory role and take bolder, confident and more directive leadership to shape the culture and practice of government.

Figure 4.9. The OECD Framework for Public Service Design and Delivery: Enablers



- Best practice and guidelines
- Governance, spending and assurance
- Digital inclusion
- Channel strategy
- Common components and tools
- Data
- Digital talent and skills

Source: OECD (2020[73]), *Digital Government in Chile – Improving Public Service Design and Delivery*, https://dx.doi.org/10.1787/b94582e8-en.

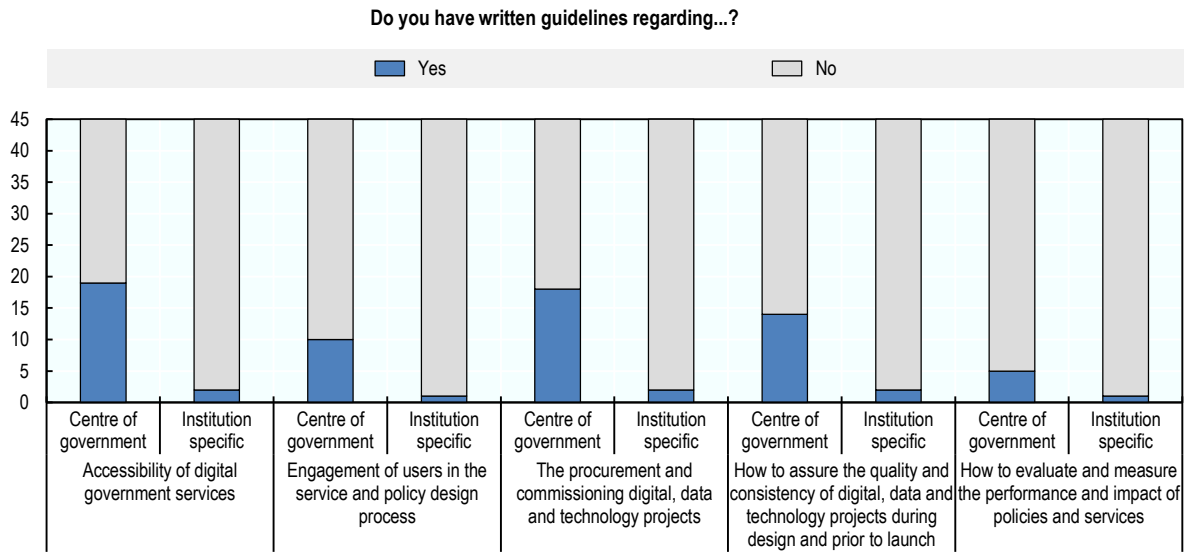
Best practice and guidelines

Enabling service design and delivery is about more than technology, and this first area can be highly influential in helping to scale digital transformation by encouraging public servants to learn from one another and understand "what good looks like". Curated by the centre but developed by distributed communities of practice, materials such as style guides, service manuals and other documentation offer wisdom and insight into the practice of digital government that can help teams to deliver high-quality public services that meet the needs of their users.

Slovenia has a healthy range of guidance materials for its service delivery teams to draw on. The National Interoperability Framework[3] is dedicated to publishing interoperability solutions and products of the public sector that achieves this ambition of sharing best practice and guidelines and is in line with other OECD efforts such as Colombia's Arquitectura TI or Mexico's Wikiguías. The catalogue of over 100 different resources includes technical solutions, recommendations and mandatory guidance. These detail the rules that have to be obeyed by institutions for their services to be hosted on government infrastructure. The most important contribution is arguably the Guidelines for Information Solutions Development (Republic of Slovenia, 2018[85]), covering usability, accessibility and proactive public service delivery although not how teams should go about identifying their users and how best to engage them. These guidelines are complemented by materials including the Technical Guidelines for Information Solutions Development (Republic of Slovenia, 2017[89]), the Guidelines on procuring IT solutions (Republic of Slovenia, 2017[88]), the Project Management Methodology in the Public Administration (Republic of Slovenia, 2016[9]) and the Manual for the Opening of Public Sector Information (Republic of Slovenia, 2016[90]) among others. However, despite the existence of these materials, Figure 4.10 shows that there are unfortunate gaps in the recognition of them with only 10 of the 45 organisations recognising guidelines relating to the engagement of users in the service and policy design process. Slovenia may consider drawing inspiration from the United Kingdom's Service Manual, where different elements of advice and guidance are brought together as a HTML resource designed to guide teams through the material in order for it to be as accessible and re-usable as possible.

[3] https://nio.gov.si/nio/vstopna.nio

Figure 4.10. Guidelines recognised by Slovenian public sector institutions



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version,* Question 33 "Do you have written guidelines regarding..."

Not all best practice needs to come from the centre, which makes it important to create communities of practice, reflecting the multi-disciplinary model discussed earlier, where practitioners can share their experiences and collectively develop a shared understanding and approach to leading the conversation forward in their specific professional domain. This can encourage more proactive storytelling about what people are working on and how. A good example of this is the community around GOV.SI, where the process of migrating corporate information has seen the development of a single editorial policy embraced by the over 100 organisations it now hosts and their content teams. While the project to migrate to GOV.SI is time-limited, the plan is to maintain this group when the project finishes in order to help improve the quality of content on an ongoing basis.

Governance, spending and assurance

Because government consists of hundreds of organisations delivering hundreds of public services, it is impossible for one organisation to directly manage the design and delivery of all public services. While guidance is valuable for providing a conceptual grounding and practical wisdom, if there is not yet an embedded philosophy for service design and delivery that naturally exhibits those behaviours, then more active oversight may be needed until they are the default. It is therefore essential to establish a clear and shared definition of "good" in respect to public services and develop a credible approach to quality assurance. Such efforts need to be built around identifying clear decision-making and co-ordination responsibilities complemented by visibility and compliance controls covering spending and delivery activity.

The *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[81]) recognises business cases as a critical tool for sustainable digital government. Their associated processes need to align with wider service design activity and provide access to funding for research and prototype activities. As agile delivery anticipates the continuous iteration of a service, it is important for business case and funding processes to allow for teams to pivot away from the original proposal once they have better understood the problem they are addressing. One concern heard during the review was that the current funding model for digital government prioritised individually separate and distinct projects, rather than allowing for more strategic development to address broader needs over a longer period of time.

One of the consequences of frequent changes to the political leadership of Slovenia and by extension organisational leadership has been the country's business case model. This model was developed inclusively with the participation of public sector organisations, public servants and academia; it set a clear expectation for technology projects with a budget in excess of EUR 20 000 to align with strategies concerning digital identity, interoperability, cloud computing, cybersecurity, and other standards in service design and delivery. However, in practice the OECD mission heard that this was not currently enforced. As such, Slovenia does not have an established assurance process linked to financial spending to guarantee that service teams are following guidelines or standards. Nevertheless, ongoing practices, such as the six-monthly report on implementing the budget to highlight benefits for both the public sector and service users, indicate an openness and capacity to provide such scrutiny over government spending.

Although the guidelines discussed in the previous section are a useful starting point, it is problematic that, as Slovenia has a healthy range of guidance materials for its service delivery teams to draw on. The National Interoperability Framework is dedicated to publishing interoperability solutions and products of the public sector that achieves this ambition of sharing best practice and guidelines and is in line with other OECD efforts such as Colombia's Arquitectura TI or Mexico's Wikiguías. The catalogue of over 100 different resources includes technical solutions, recommendations and mandatory guidance. These detail the rules that have to be obeyed by institutions for their services to be hosted on government infrastructure. The most important contribution is arguably the Guidelines for Information Solutions Development , covering usability, accessibility and proactive public service delivery although not how teams should go about identifying their users and how best to engage them. These guidelines are complemented by materials including the Technical Guidelines for Information Solutions Development , the Guidelines on procuring IT solutions , the Project Management Methodology in the Public Administration and the Manual for the Opening of Public Sector Information among others. However, despite the existence of these materials, Figure 4.10 shows that there are unfortunate gaps in the recognition of them with only 10 of the 45 organisations recognising guidelines relating to the engagement of users in the service and policy design process. Slovenia may consider drawing inspiration from the United Kingdom's Service Manual, where different elements of advice and guidance are brought together as a HTML resource designed to guide teams through the material in order for it to be as accessible and re-usable as possible.

Figure 4.10 shows, so few organisations recognise them as being relevant for assuring the quality and consistency of digital, data and technology projects during design and prior to launch. This indicates that greater authority is needed for the MPA to oversee and actively assess the quality of delivery against these guidelines. The review team heard the desire from several participants that the centre could exert more direct leadership in introducing a "service standard" against which services could be measured. Slovenia has a strong track record in brokering inclusive agreements through participatory practices, and the development and instituting of a standard would lend itself well to such a consensus-based approach.

Channels

The way in which different channels are designed and resourced plays a critical role in enabling teams to develop public services that respond effectively to the needs of their users. As has been discussed already, the evolution of different channels can leave behind a challenging legacy that might mean citizens have multiple channels to choose from but, when they do they find them operating as silos. In a situation where there is no single entry to government, it is vital to establish a clear omnichannel strategy (with the necessary mandate) to set direction and ensure that, no matter the channel someone chooses, they will always be able to access a consistent, joined-up and high-quality service. For members of the European Union, there is another dimension to this challenge, as prompted by the Single Digital Gateway project (as discussed earlier in Box 4.1)

The COVID-19 pandemic had many implications for daily life with one of those being the closure of many face-to-face locations for accessing public services. Prior to the pandemic, and during the review mission

to Ljubljana, the interview with the Agency of the Republic of Slovenia for Public Legal Records and Related Services (*Agencija Republike Slovenije za javnopravne evidence in storitve*, AJPES) covered an interesting discussion about the interplay between their digital presence, and their face-to-face service locations. These 160 registration offices, of which 12 were run directly by AJPES, allowed for citizens to complete their transactions, and they were overwhelmingly the channel of choice, with only 11% of all activity happening online.

Slovenia does not currently have a clear omnichannel strategy. In terms of the digital space, there are impressive efforts taking place with regards to GOV.SI, eUprava, SPOT and OPSI against a strategy of distinguishing between corporate information, citizen services, business services and open data, with signposting between them. Until recently, there had also been limited efforts to extend co-operation to include local public services, but it was encouraging to see that the first municipal services have been included in eUprava and SPOT. Nevertheless, although much corporate information has migrated to GOV.SI, there are legacy services, information and micro-sites served through older domains and infrastructure as well as those entities that continue to operate independently, even while being core to the activity of meeting the needs of either citizens or businesses. The current strategy is to offer this multiplicity of channels, but the existence of these multiple sites involves a greater overhead of co-ordination and challenges in terms of solving whole problems and designing end-to-end services as well as the approach to standards and quality, because the starting point is already one of divergence and autonomy rather than federated collaboration.

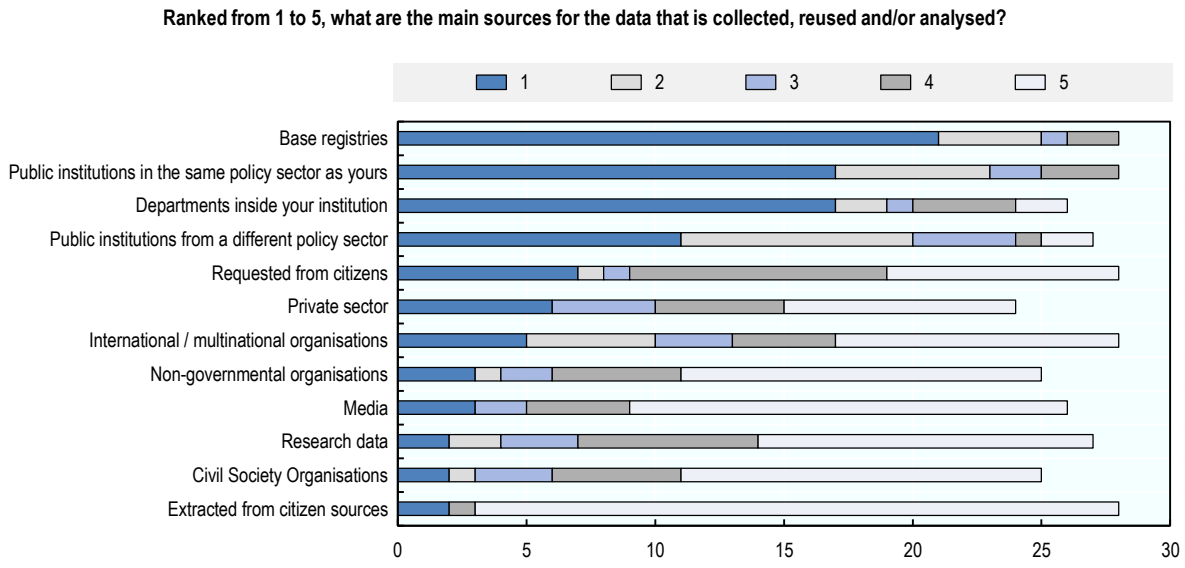
Common components and tools

The provision of building blocks to help teams deliver services like hosting and infrastructure, digital identity, notifications, and payments is an established part of Slovenia's strategy to simplify the integration effort for service teams and make the citizen's user experience as proactive and seamless as possible. The specifics of different elements are discussed in this section, with the approach relying on two important frameworks. Firstly, the base registers framework (discussed in more detail in Chapter 5) provides the data infrastructure that sits behind common components. One part refers to trust services and the other part to the access of data contained in registers. Over time, different modules have been developed to respond to the needs of individual organisations, but they have proven valuable and been disseminated for wider usage. Secondly, the National Interoperability Framework[4] catalogues valuable components and technical tools that can help service teams enhance their services.

These efforts by the MPA are recognised as providing a lot of valuable resources in terms of managing user identities, accounts and authorizations; trust services; security schemes; access to various data sources; document management; and other systems administration resources. The building blocks and resources are not mandatory but these services show early signs of being widely adopted – 1 in 3 organisations in the Slovenian public sector re-use technical solutions provided by another part of government (see Figure 4.8) while 21 out of the 45 organisations identified that base registers were the primary source for the data they use to provide services (see Figure 4.11). However, there are some high profile organisations preferring to operate independently and developing their own websites, service channels, services and applications that in many cases duplicate the resources made available by the MPA. Nevertheless, early indications underline the potential for the centralised provision of common components in Slovenia but that further strategic thought is needed to consider the mandate of the team operating these components as well as how they are funded and resourced to understand the needs of teams across government in order to continuously improve the user experience for those who adopt, and address the reasons why others do not.

[4] https://nio.gov.si/nio/vstopna.nio

Figure 4.11. The main sources of data used by institutions



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), Digital Government Survey of Slovenia, Public Sector Organisations Version, Question 55 "What are the main sources for the data that is collected, reused and/or analysed in your institution?"

Slovenia has also demonstrated an openness and willingness to work with and embrace initiatives of the European Union that improve cross-border provision of services, with 14 out of the 45 organisations reporting that they had worked on needs that cut across borders. In general, these services are not yet high-profile examples of direct involvement from the public but rather underlying government-to-government interactions that take place behind the scenes to enable the subsequent delivery of a service, as with the example of death data exchange in Box 4.7. Given that Slovenia has the underlying architecture in place, and the prior experience in addressing this need, it will be interesting to see what becomes possible as this agenda grows in maturity, particular as the COVID-19 pandemic has brought the need for greater portability of identity and service provision to the fore.

Box 4.7.Sharing death data across borders

For organisations such as ZPIZ that are responsible for administering pensions, often to beneficiaries living outside their 'home' country, the cross-border exchange of data is of critical importance, particularly in the event of somebody's death. This concerns not only receiving notification but also communicating back to one's country-level counterparts.

ZPIZ operates a multilateral cross-border service for exchanging personal data. The exchange is used by institutions from neighbouring countries (including Bosnia and Herzegovina, Croatia, Germany, Montenegro and Serbia) as part of the Electronic Exchange of Social Security Information system with in-house developed institutional applications.

Securely hosting services

Arguably the most critical component in better supporting the design and delivery of government services is its web infrastructure. Regardless of how user-driven a service design and delivery philosophy might be,

without reliable and secure hosting that can scale to meet spikes in demand, any service that relies on digital or data to function will be useless. This need is particularly acute for small organisations for which the costs of being responsible for their own infrastructure would be prohibitive.

One of the longest-standing common components has been the provision of government hosting to obviate the need for individual organisations to house and manage IT systems. It was originally conceived as a private intranet networking 600 locations in Slovenia; the focus is now on using cloud computing to reduce the overheads involved. This strategy is designed not only to continue offering the same benefits of shared infrastructure at a lower cost but to help stimulate a new ecosystem of public service providers and achieve a standardised approach to the security of government and citizen data. The Slovenian State Cloud (DRO) infrastructure provides secure and robust hosting for upwards of 400 different information systems in Slovenia and is regarded as a strong asset by many institutions. More recent additions have been the Hybrid Cloud (HRO) offering solutions to the public sector that allow for blending the needs for cloud-based and on-premises hosting and the Innovative-Development Cloud (IRO) which will serve as a development platform for educational establishments and start-ups. By the end of 2024, a new data centre (DRO Next) is planned, under Slovenia's resilience and recovery plan.

Data- and interoperability- related resources

A further element for accelerating the development of services is data. Chapter 5 provides a detailed analysis of Slovenian efforts to establish a data-driven public sector, but a significant part of those efforts are the tools, platforms and resources to support greater access to and sharing of data, both within the public sector and via Open Government Data. As discussed above, the base registers are a critical part of this process, as is the TRAY (Pladenj) platform and its associated ecosystem (see Box 5.1).

Document management

The MPA has introduced a central document management system called KRPAN. The KRPAN platform is designed as a flexible and easily scalable solution that will be continuously kept up to date in order to support the management of documentary material within the public sector. The modular nature of KRPAN means it can support growing adoption and the development of additional functionality including the capture of physical material, centralised numbering, signing of documents, validation and shipping of documents. KRPAN securely records the whole range of documents which government works with including eInvoices and other financial accounting documents to enable government employees to work with documents more quickly and with greater efficiency.

Taking payments

Payments is another area where countries are approaching a common challenge by offering centrally provided services to make it easy for citizens to pay government, such as pagoPA in Italy, PaySG in Singapore and GOV.UK Pay in the United Kingdom. Slovenia has been considering this common need for longer than these other countries, with the shared resource to provide this capability being a well-established one available for other government services to consume. Overseen by the Ministry of Finance, but operating independently from it, the Public Payments Administration is responsible for providing a common component that enables teams to easily implement the functionality to take payment from a wide range of sources, whether mobile payments, card processing or bank transfers

Sending notifications

Confirmation e-mails are one of the most ubiquitous parts of any service interaction. They hint at the potential for a more proactive and user-driven approach to notifications; timely and accurate messaging can reassure users that their need is being met before they experience any anxiety about checking its

status, saving them emotional strain but also the overhead of picking up the phone or visiting a website to find information. Making it easy for services to send digital notifications, whether by e-mail, SMS or via messaging products can be transformative, even without revisiting any other step in the process.

In November 2020, the MPA launched the SI-CeV electronic mailbox to reduce the overhead for institutions and citizens in exchanging documents. Organisations are able to deliver documents directly, securely and electronically to a citizen's personal digital mailbox, accessed using Slovenia's digital identity solutions. Although the cost of physical mail when compared with other methods is higher, especially when addressed by individual services, Slovenia may not wish to abandon it entirely. The United Kingdom found, in the course of developing its notifications platform that economies of scale can exist for printing and mailing that make investment worthwhile in order to reflect the preferences, and context, of users. Since May 2016, GOV.UK Notify has sent 11 million letters, a small but significant figure when compared to the 2.3 billion emails and 500 million text messages in the same period (Government Digital Service, n.d.[91]).

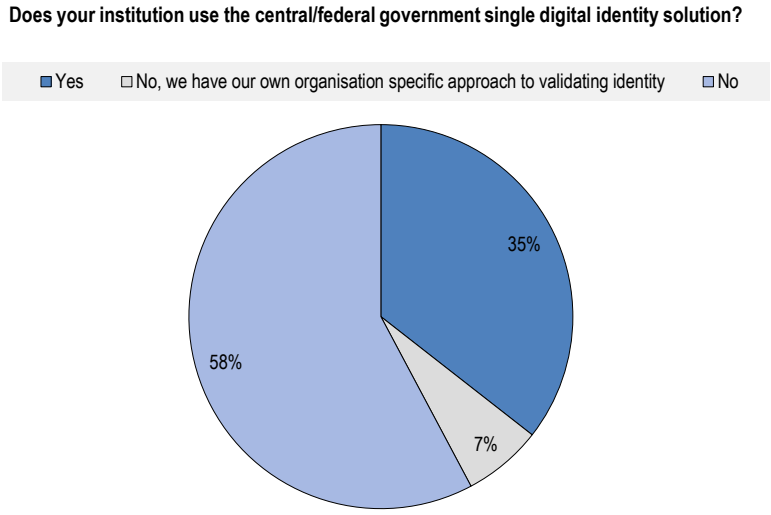
Digital identity

Verified identity is the basis for accessing essential public and private services such as voting, financial transactions, government aid and health care. The COVID-19 pandemic has brought the importance of digital mechanisms for identity proofing to the fore. Successfully addressing the challenge of digital identity involves several issues including different technologies and levels of identity assurance, fragmented user journeys, legacy solutions, portability of identity across borders or with devices, and the importance of trust.

The starting point for Slovenian efforts for digital identity began in 2000 with digital certificates enabling the first electronic identity and electronic signature solutions. Since then the country has attempted several approaches and iterated the overall strategy with the result that the future direction is shaped by legacy solutions and experiences. Digital identity in Slovenia is a work in progress. Currently, private and public sector actors can authenticate users by issuing digital certificates to enable access to both public and private sector services. Looking to the future, Slovenia expects to unify experiences under the SI-PASS brand. SI-PASS embraces a mobile-first model to provide full identification, electronic signatures and authentication for all users, with the ambition to eventually allow for the replacement of the legacy of digital certificates. To achieve this, the SI-PASS ecosystem offers different modules for integration that address the different needs which teams might have for authenticating their users.

In the data supplied by Slovenia as part of the Digital Government Index, 50% of central and federal government services were reportedly using digital identity, with the majority accessed via eUprava or SPOT. As of May 2021, SI-PASS data indicated it was available on over 45 different websites and had 300 000 users who had authenticated in excess of 7 million times. Figure 4.12, shows a remaining gap in institutional adoption with only 16 out of 45 institutions using SI-PASS and 4 using their own solution. One organisation reported they would migrate to SI-PASS, while another continues to develop an in-house solution. As with other areas of central provision, the value of MPA efforts to address a particular set of needs is at risk of being undermined by the lack of oversight and assurance to avoid duplication of effort and fragmentation of solutions.

Figure 4.12. Institutional usage of digital identity in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), Digital Government Survey of Slovenia, Public Sector Organisations Version, Question 39 "Does your institution use this digital identity solution?"

Slovenia benefits from having a strong commitment to an agreed solution to the question of digital identity with further legislation being prepared that will support the use of SI-PASS as a platform for the private sector. As well as growing momentum for its usage across Slovenia, SI-PASS forms the basis for the country's participation in the European Union's eIDAS programme for enabling cross-border portability of identity in support of the Digital Single Market. With adoption of SI-PASS increasing due to greater opportunities to make use of the solution, as well as the implications of COVID-19, Slovenia is well positioned to combine this common component with other strengths in data interoperability to unlock the possibilities of user-driven and proactive services.

Submitting information to government

The final common challenge facing service teams is how best to handle the information supplied by users. This question is not a new one and in the 1960s, the United Kingdom government published a book on *The Design of Forms in Government Departments* (Her Majesty's Stationery Office, 1962[92]) that is out of step with modern technology but as relevant today on the process as it was then.[5] In the analogue world this need was met by paper forms and the e-government era then saw online experiences being created that often meant giving users access to a "fillable PDF". In the age of digital government, new expectations have been set about how to approach the design of user interactions. In this context, it is important to strike a balance between tools that can easily publish a service to the Internet and the associated quality, standards and expectations of how the service works.

Governments are exploring "low code" systems, that use a visual interface to construct end-to-end services out of smaller constituent parts, complemented by design systems that collate re-usable user interface components, design patterns, accessibly written guides and the guidance to support implementation that ensure service teams can build in a consistent fashion.[6] In Slovenia, this need is met by the Electronic

[5] Nick Colley, a former member of GOV.UK's Design System team has transformed this publication for the web at https://design-of-forms.online

[6] Some examples include Argentina: http://argob.github.io/poncho/, Australia: https://designsystem.gov.au, Brazil: http://dsgov.estaleiro.serpro.gov.br/, Canada: https://www.canada.ca/en/government/about/design-system.html,

Procedures Building Block (*Jedro elektronskih postopkov,* JEP) with the intention of allowing for public servants to manage digital services from design to live with minimal programming knowledge while being user-friendly, trusted, and working across platforms in a way that re-uses all the elements discussed previously.

JEP operates on the basis of initially understanding the design of the process that is needed and then using the building blocks to convert that into a digital experience. By re-using the existing components, all of the quality control that goes into their design is replicated, and the benefits are scaled across the services developed using JEP. Services can be assembled that handle authentication, data capture, provision of evidence (either through documents or in reference to existing data sources), e-signatures where necessary, payments and notifications throughout the process. With the right philosophy of service design and delivery and the necessary support to create high-quality user experiences, a tool like JEP has the potential to support the Government as a Platform ambition of scaling the delivery of public services while retaining trust and quality.

Digital inclusion

After the experience of the COVID-19 pandemic, it would be easy to assume that the Internet has become ubiquitous for all. However, the impact of the pandemic may well turn out to have worsened the challenges for those lacking the necessary skills or requiring additional, in-person support to have their needs met. The perceived benefits of transforming public service design and delivery do not automatically apply to everyone and necessitate a focus on the needs for connectivity, digital literacy and accessibility to ensure "digital divides" are not exacerbated. This makes it important to build strong links between the agendas for digital government, digital infrastructure and the digital economy. It was encouraging to hear that, while this had not always been the case, steps were now being taken to align these areas of work.

As discussed earlier in this chapter, although Slovenia is a small country, there are challenges in ensuring high-speed connectivity for all residents. The current period of government investment has the ambition that, by 2022, 80% of all households will be within 200 metres of high-speed Internet infrastructure.

Efforts to close the digital divide in Slovenia were targeted in terms of gender, age groups, education and on those segments of the population living in geographically remote locations. This breadth of focus is valuable but must remain a priority agenda as future strategies are developed to ensure that nobody is left behind by the opportunities that digital offers. There remains a need to support citizens with the necessary training and the peer review team were impressed by the partnership with Simbioza which has taken an intergenerational approach to connect young volunteers with elderly citizens through courses, workshops and support designed to increase digital literacy. Furthermore, encouraging work was reported from the education sector where, through the EU Cohesion Policy 2014-2020, partnerships among schools, universities, public institutes, public research organisations and other stakeholders are supporting the development of skills and, in particular, digital skills. This is further supported by the Ministry of Education, Science and Sport running several projects to improve digital skills of pupils, adults and teachers. Slovenia is fortunate to have networks of enthusiastic volunteers providing support and initial progress from the education sector, but it is important to develop a longer-term, systemic and sustainable approach to digital skills and digital literacy in society, as discussed in Chapter 3.

Finally, on accessibility, there was fairly good awareness of the Accessibility of Websites and Mobile Applications Act (Republic of Slovenia, 2018[93]) which reflects in national law the Web Accessibility Directive (Directive (EU) 2016/2102) that came into force in December 2016.

Data

Singapore: https://designsystem.isomer.gov.sg, the United States: https://v2.designsystem.digital.gov and the United Kingdom: https://design-system.service.gov.uk/

Data is an important enabler in the context of the ecosystem to support the design and delivery of transformed public services. Among the many benefits an effective model of data governance offers, one of those having the greatest impact on citizens is its role in delivering services and how it allows for proactive and joined-up delivery. Governments can avoid maintaining multiple datasets, handling requests for data and requiring citizens to supply their information multiple times.

A more detailed treatment of data is covered in Chapter 5 but, from a practical point of view, Slovenia is well equipped because central databases exist and they contain high-quality data, with the TRAY interoperability platform enabling the exchange of data between many different parts of the government. When it comes to designing new services, the fact that data is well provisioned from the start means that teams are able to accelerate their development. In line with much of the European Union, Slovenia has taken steps to adopt the once only principle. While there are no formal requirements to enforce this, the General Procedure Administration Act (*Zakon o splošnem upravnem postopku*, ZUP) (Republic of Slovenia, 1999[18]) provides a legislative basis for obliging public officials to use public registers to access information regarding citizens or businesses where that information is available.

Talent and skills

The digital government and service design model represents a paradigm shift that means government does not always have the necessary talent and skills at its disposal. A strategic approach to the talent and skills needed for a digital government involves creating an encouraging environment, defining the necessary skills and taking steps to source a suitable workforce (OECD, 2021[13]).

A more detailed treatment of talent and skills is covered in Chapter 3 but Slovenia has a specific strategy or policy to develop digital skills among the public service workforce and gives some focus to raising the digital competency level of civil servants (Republic of Slovenia, 2015[7]). However, digital skills themselves are not as yet a core component of the skills framework for the public sector and are not a requirement in the hiring process.

There are also constraints on the ease with which the Slovenian public sector can recruit the professionals that it needs to be able to transform its approach to services. This means that there is, and will continue to be, a reliance on outsourced contracts to secure the necessary capacity to cope with the ever-increasing demand for digital transformation of public services. Although the current procurement culture does not encourage innovation, efforts are underway to revise this. During the review it was suggested that public private partnerships are an underused opportunity that could help to increase the public sector's capacity to deliver while giving greater influence to government to ensure that the outcome of the partnerships contribute to developing the philosophy and the enablers for service design and delivery discussed in this chapter.

5 Data-driven public sector

This chapter analyses and assesses the situation regarding public sector data in Slovenia using the OECD Data-Driven Public Sector Framework. The first section considers a model of data governance for government as a whole, and within organisations, that strategically covers leadership and vision; tactically addresses the capacities for coherent implementation and the necessary rules, laws, guidelines and standards; and operationally ensures the necessary data architecture and infrastructure to support the generation, collection, storage, processing, publication, sharing and re-use of data. The second section considers how public value can be generated by applying data to anticipate and plan, deliver, and evaluate and monitor. Finally, the chapter considers the role of data for public trust in terms of ethics, privacy and consent, transparency and security.

Introduction

Data is one of the most important elements in the digital transformation of economies, societies and their governments. In 2006, the British mathematician Clive Humby, working on a new way for a supermarket to understand the purchasing habits of its customers, suggested that "data is the new oil" (Arthur, 2013[94]). This phrase, amplified a decade later by The Economist (2017[95]), was based on a recognition that data as a raw material could prove as significant to economic growth in this century as oil had done in the last.

At a simple level, this pithy phrase has some merit. Indeed, data may offer greater economic value than oil. For example, in Norway, where the oil industry accounts for approximately 20% of gross domestic product (GDP), Skogli et al. (2020[96]) estimated the data economy contributed EUR 15 billion (NOK 150 billion) in 2020 and projected that figure to double by the end of the decade. Their research suggested that "based on available forecasts for Norwegian oil and gas operations, *value creation* from data will thus be able to pass value creation from Norwegian petroleum activities" by 2030 (Skogli et al., 2020[96]).

While the analogy between data and oil is immediately understood, data's characteristics are significantly different from those of oil, in its costs but also in its potential benefits. Data is orders of magnitude cheaper to source, store and exchange than oil – the exponential increase in data produced by citizens and businesses is a by-product of other activity rather than involving the extractive overheads of fossil fuels – while the marginal costs of sharing and storing data are many times lower. Furthermore, while the increasing environmental impact of data should not be ignored, it is less significant than oil. Masnadi et al. (2018[97]) estimated that the *production* of crude oil only (from exploring a drilling site through extracting crude oil to transporting it to a refinery) was responsible for approximately 1.7 gigatonnes, or around 5% of all fuel combustion greenhouse gas emissions. This is set against an estimate of the carbon footprint for global data storage and transmission demands (inclusive of increased demands following COVID-19-related lockdowns) of 97 million tonnes – a figure roughly equivalent to the annual carbon footprint of Finland and Sweden combined (Obringer et al., 2021[98]).

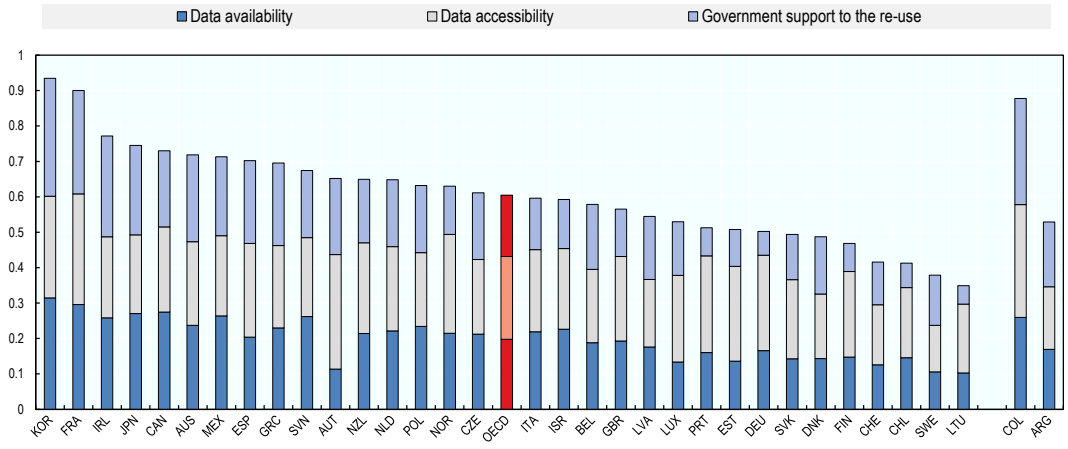
The costs involved with data are not in sourcing and storage but in refining its quality, enabling its sharing and developing the capabilities for engaging with, and understanding, its insights. Value is therefore not extracted from obtaining data but created through putting it to use. Unlike oil, the possibilities of data do not diminish when consumed but quite the opposite: returns increase as data is combined, linked or remixed. Furthermore, data (unlike oil) is non-rivalrous, that is it allows multiple actors to use the same resource at the same time to generate value. Finally, while data and oil are similar in having no latent value, the safeguarding of data, particularly personal data, must be considered at all times. Overall, it is imperative that data be readily available and shareable while at the same ensuring it is handled securely, trustworthily and ethically.

However, turning this promise of data into tangible, measurable and consistent outcomes has proven elusive, particularly for the public sector. As governments undergo digital transformation, there is a growing recognition of the importance for data to underpin, shape and inform their activity. Governments produce, collect and use data on an ongoing basis just like businesses and similarly need to avoid emphasising existing organisational siloes, ignoring standards and duplicating data stored elsewhere. Where this happens it sometimes reflects a deliberate decision, a constraint of the legal or governance structures of a country on easy use or reuse, or that organisations are simply unaware of the impact of their choices.

While this indicates a gap between the vision for using data and the practical realities of unlocking that potential, the growing maturity of Open Government Data (OGD) should give hope. The publication of public sector datasets to stimulate innovation, provide opportunities for the economy at large and increase government accountability has made OGD an increasingly mainstream topic with the introduction of explicit legislation, dedicated strategies and incentives to increase its use (OECD, 2018[99]). The most recent edition of the OECD Open, Useful and Re-usable data (OURdata) Index: 2019 (OECD, 2020[16]) showed

demonstrable improvements across many OECD countries (see Figure 5.1) with Slovenia impressively rising to 10th position from 19th in 2017 (Lafortune and Ubaldi, 2018[100]).

Figure 5.1. OECD Open, Useful and Re-usable data (OURdata) Index: 2019

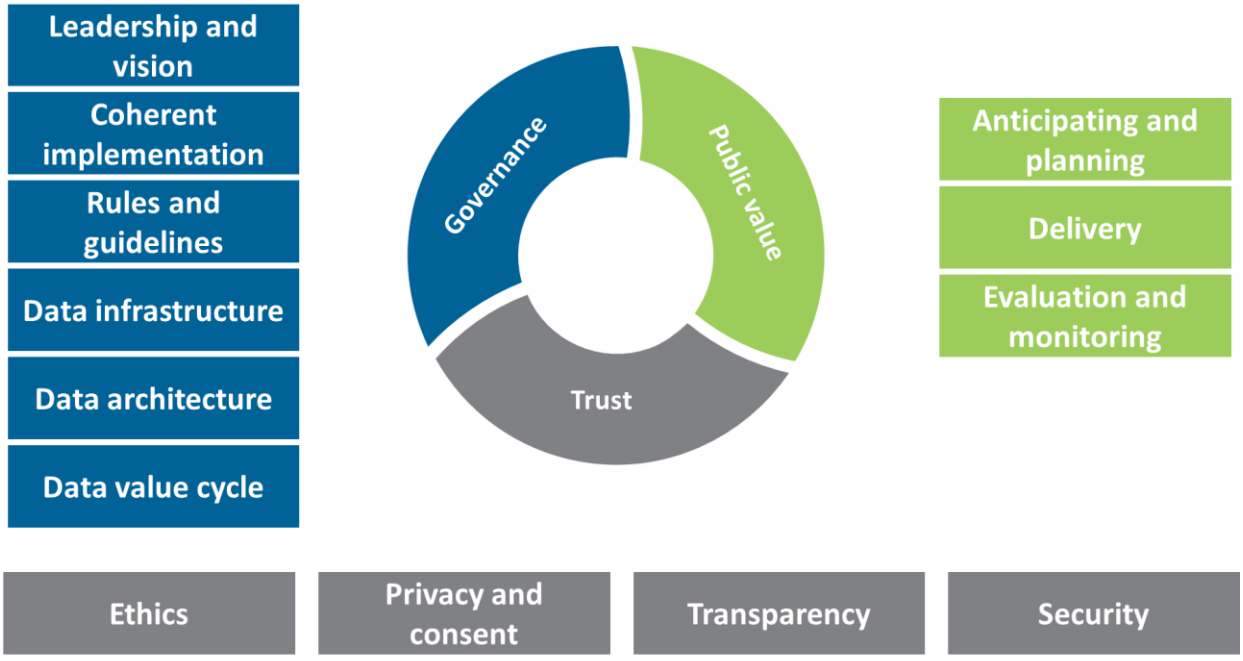


Note: Data is not available for Hungary, Iceland, Turkey and the United States. Information on data for Israel: http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[16]), "Open, Useful and Re-usable data (OURdata) Index: 2019", https://dx.doi.org/10.1787/45f6de2d-en.

However, the use and reuse of data by governments to make policy, design services or monitor performance has lagged behind. This is despite the *OECD Recommendation of the Council on Digital Government Strategies* (OECD, 2014[81]), *calling on governments to create a data-driven culture in recognition* that data (whether open or closed) is fundamental to transforming government. To help support the operationalisation of the Recommendation, the OECD developed the Data-Driven Public Sector (DDPS) Framework (OECD, 2019[12]) setting out a three-pronged approach to achieving greater impact of data, internally as well as for OGD (see Figure 5.2) as follows:

1. a model of data governance for government as a whole, and within organisations, that:
   a. strategically covers leadership and vision
   b. tactically addresses the capacities for coherent implementation and the necessary rules, laws, guidelines and standards
   c. operationally ensures the necessary data architecture and infrastructure to support the generation, collection, storage, processing, publication, sharing and re-use of data
2. generating public value by applying data to anticipate and plan, deliver and evaluate and monitor
3. the role of data for public trust in terms of ethics, privacy and consent, transparency and security.

Figure 5.2. The OECD Data-Driven Public Sector Framework



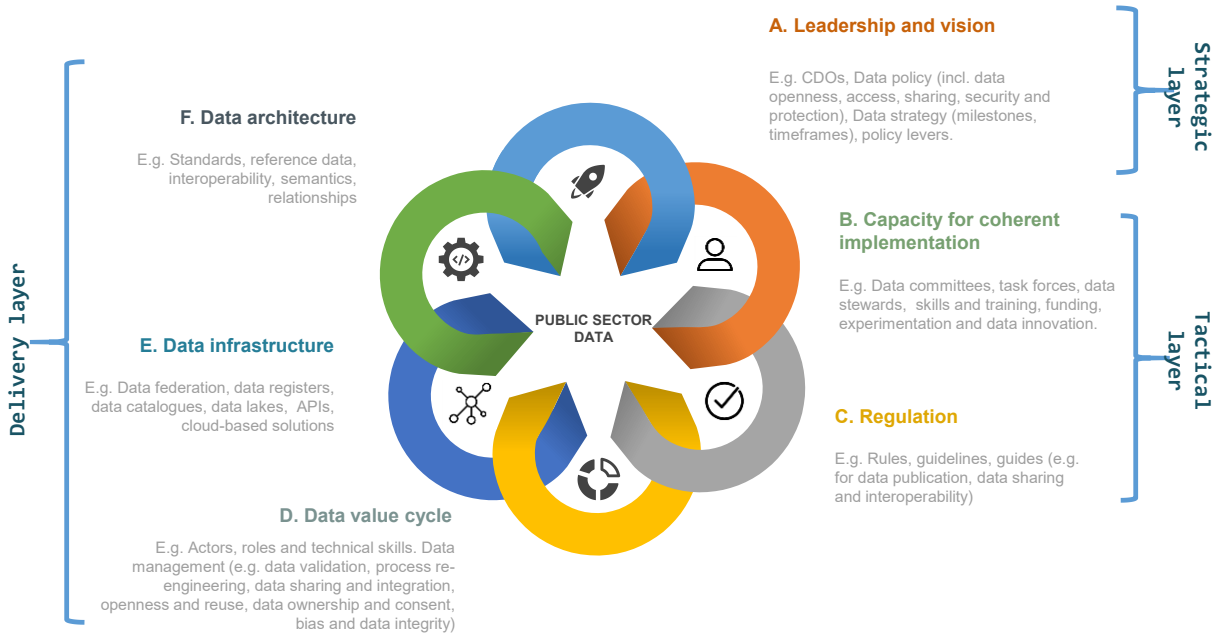
Source: OECD (2019[12]), *The Path to Becoming a Data-Driven Public Sector*, https://dx.doi.org/10.1787/059814a7-en.

Although one dimension of the Digital Government Policy Framework (DGPF) (OECD, 2020[14]), discussed in Chapter 1 (see Box 1.1), is dedicated to DDPS the topic is relevant to the maturity of all dimensions. The DGPF is the basis for measuring digital government maturity through the Digital Government Index (DGI), where Slovenia's overall performance discussed in Chapter 1 (see Table 1.2) was slightly above the OECD average. However, the dimension-specific performance for Slovenia saw significant contrasts between the scores for Open by Default (a ranking of 7th) and DDPS (a ranking of 19th) or the scores for Government as a Platform (a ranking of 11th) and Proactiveness (a ranking of 23rd). Using the DDPS Framework, this chapter analyses how Slovenia is approaching data governance, applying data to generate public value and recognising the contribution of data to public trust.

Data governance in Slovenia

Data governance is a critical foundation for the role of data in the public sector. The success, or otherwise, of these foundations will determine the extent to which Slovenia and its citizens, businesses and visitors might benefit from data. Taking a broad perspective on public sector data governance enables governments to share data, encourage societal needs to be met with and informed by data, give citizens and businesses access to services across borders, facilitate data-driven experimentation with emerging technologies (such as Artificial Intelligence), and ensure the quality of any data that is being used. As per the expectations of the third pillar for the DDPS Framework, all this activity should ensure safeguards for public trust in terms of privacy, security and additional concerns. The OECD DDPS Framework pillar on data governance recognises that its success involves taking strategic, tactical and operational steps to ensure a data-driven public sector (see Figure 5.3).

Figure 5.3. Data governance in the public sector



Source: OECD (2019[101]), *Digital Government Review of Argentina: Accelerating the Digitalisation of the Public Sector*, https://doi.org/10.1787/354732cc-en.

In unlocking the potential for a DDPS, the first consideration is the overall strategic approach as reflected in the leadership and vision for the data agenda. Secondly, questions of capacity for implementation (in terms of institutional leadership and access to human and financial resources) and regulation (in terms of rules, standards and guidelines) need to be addressed to ensure that data flows steadily within government, across sectors and borders when needed, and always under the conditions to support trust. Finally, at the level of delivery, it is important that steps are taken to ensure that data infrastructure and data architecture can support the generation, collection, storage, processing, publication, sharing and re-use of data (the government data value cycle). Slovenia's record on OGD, as demonstrated by its 10th placed position in the OURdata Index (Figure 5.1), reflects a strong and co-ordinated approach to the strategic, tactical and operational elements which is not as evident in the wider treatment of data in Slovenia and explains the lower ranking of 19th in the DDPS dimension of the DGI (see Table 1.2).

Strategic leadership and vision

Over time, countries will have embedded data practices in legislation, regulations, standards and guidelines and may acknowledge the importance of particular aspects of the data agenda. However, without strategic co-ordination and clarity of leadership, this may result in disconnected, uncoordinated, fragmented, siloed or narrowly focused efforts. For example, a country may address technical or operational elements (such as data standards) or introduce legislation (perhaps on freedom of information) without considering the broader, government-wide strategic and tactical needs to ensure co-ordination and sustainable, long-lasting transformation.

The OECD's Digital Government Review of Slovenia reflects such a situation with the most impactful priority identified during the Workshop on Service Design and Delivery and Data in Slovenia in February 2021 being the need to address a lack of clarity around the vision and strategy for data. Although there is a lot of good data practice in Slovenia for both OGD and non-OGD, the lack of leadership or of a clear

vision and strategy as well as a fragmented legislative landscape is preventing a co-ordinated and effective approach that can better unlock the potential of data in the country.

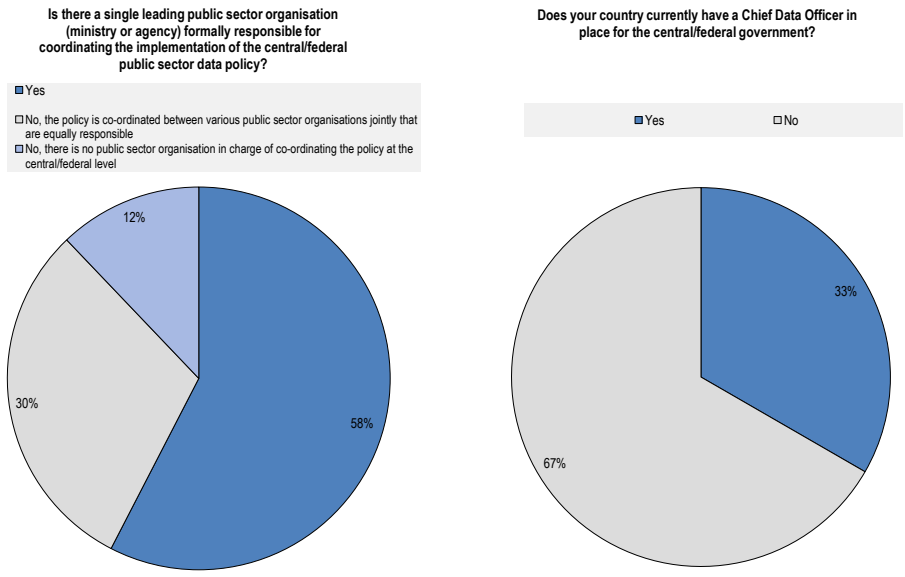
Some of this confusion was visible in the responses given as part of the Digital Government Survey of Slovenia (OECD, 2020[35]). Slovenia does not have a dedicated data strategy but 16 of the 45 surveyed public sector bodies thought such a strategy exists. Nevertheless, in the absence of a dedicated strategy, the Public Administration Development Strategy 2015-2020 (Republic of Slovenia, 2015[7]) sets the expectation of achieving greater use of data for "effective informatics, increased use of e-services and interoperability of information solutions" to improve the quality of citizens' lives. This strategy also contained a specific commitment to transparency, re-use and the value of OGD where good practices are more visibly embedded in the Slovenian public sector following the 2016 launch of the website Open Data of Slovenia (*Odprti podatki Slovenije*, OPSI).

Alongside the lack of national data strategy, only 4 organisations have policies or strategy at a local level dedicated to data, indicating that efforts to set the strategic direction for data nationally need to be complemented by efforts within organisations too. More positively, 27 of the 45 institutions were actively implementing data-related initiatives. Among those initiatives was a strong emphasis on OGD, a reaction to the implications of the European Union's General Data Protection Regulation and investments in data-specific training for staff. The Institute of Macroeconomic Analysis and Development (*Urad RS za makroekonomske analize in razvoj*, IMAD) highlighted the importance to its work of delivering its monthly data-driven publications, analysis, reports and forecasts to policy makers through an internal government application for sharing documents. In addition, the Municipality of Celje referenced project-specific efforts such as establishing a Geographic Information System platform, dissemination tools and the integration of geospatial data into workflows. These initiatives show that there are strengths in the experience of data exchange, sharing, re-use and publication in Slovenia but that there is a gap at both the national and local levels for this to be co-ordinated and strategic in unlocking its greater potential.

One of the greatest challenges in Slovenia has been consistency of leadership for the digital government agenda to make sure that initiatives and ambitions deliver strategically towards a coherent outcome. Leadership in terms of data is essential to set the agenda, identify the barriers that need addressing, develop the strategy and oversee the delivery of actions to secure progress. Leadership can be provided by appointing national level Chief Data Officers (CDOs) or designating an organisation to hold this responsibility.

The DGI identified that while only 1 in 3 countries has the dedicated role of CDO, 70% of countries hand the responsibility to either a single organisation or a collaborative group of organisations to lead and oversee the implementation of the strategy (Figure 5.4). Slovenia is 1 of only 9 countries that do neither – there is no CDO (or equivalent organisational lead) or any central co-ordination and responsibility for overseeing the implementation of a data policy.

Figure 5.4. Leadership and responsibility for data as measured by the Digital Government Index



Note: The OECD countries that did not take part in the Digital Government Index are: Australia, Hungary, Mexico, Poland, Slovakia, Switzerland, Turkey and the United States. A total of 29 OECD countries and 19 European Union countries participated in the Digital Government Index. Information on data for Israel is available at http://dx.doi.org/10.1787/888932315602.
Source: OECD (2020[15]), *Digital Government Index: 2019 results*, Question 37 "Is there a single leading public sector organisation (ministry or agency) formally responsible for co-ordinating the implementation of the central/federal public sector data policy?" and Question 39 "Does your country currently have a Chief Data Officer in place for the central/federal government?", https://dx.doi.org/10.1787/4de9f5bb-en.

One of the priorities identified during the Workshop on Service Design and Delivery and Data in Slovenia in February 2021 was for a named public sector organisation or individual to have the mandate to co-ordinate and influence the data agenda. Their responsibility would also include developing indicators to measure the progress in implementing these policies. The Governmental Council of Informatics Development in Public Administration supported by the Ministry of Public Administration (MPA) holds the responsibility for digital government in general and, although it does not currently have a dedicated focus on data, it could be the appropriate place to locate institutional leadership in the future.

As Slovenia looks to develop a new digital government strategy, these efforts should be matched by developing efforts to take a holistic view of data. This could be helped by adopting a more inclusive approach to assessing data needs, challenges and capabilities. Although the development of the Public Administration Development Strategy 2015-2020 (Republic of Slovenia, 2015[7]) was understood to have been inclusive in terms of the public, government stakeholders and non-government actors through the Digital Coalition, a majority of institutions felt that they had not been involved as much as they ought. Finding ways to increase their sense of ownership can help strategic discussions about data to balance its external application in line with internal priorities for operationalising the use and role of data according to several of the issues identified during the review. These include the management and availability of registers; legal and governance structures in terms of legislation and regulation; the role of data in business cases; and securing access to skills. This will require a strategy for data that secures its recognition politically, mandates centralised leadership for co-ordinating its implementation and disseminates the expectation within individual organisations to value the role of data according to the OECD DDPS Framework.

Overall, insufficient central leadership has not prevented positive activity at a working level in Slovenia with important achievements in terms of legislation and underlying data infrastructure (as discussed later). However, it would be valuable to see how stronger, more visible leadership and resources for the agenda

could unlock the value and benefits of data in Slovenia on a systematic basis. This would help to support the recognition of its strategic relevance in relation to the digital government agenda, backed up by the political leadership. For example, the leadership of Canada, the Netherlands, United Kingdom and the United States have set up data strategies as means to build greater public sector cohesion and promote the integration of policies and tools. In many ways, this echoes some of the challenges discussed in the preceding chapter on service design and delivery: the country is less in need of programme management to deliver technology or legislation but more in need of leadership to establish a data-driven culture and an environment that sustains good initiatives, shares good practices and connects practitioners.

Tactical capacities for implementation and regulation

The tactical considerations for DDPS fall into two categories. The first, is in terms of their capacity for coherent implementation for central co-ordination of the use of data as well as leadership and delivery capacity within organisations, including digital government and data related skills and training throughout the public sector. The second is introducing, revising or replacing the regulatory materials that support compliance and good behaviour concerning the use of data through rules, guidelines and standards.

Capacity for coherent implementation

As part of the institutional survey, the OECD investigated the perception of barriers to the use of data to improve government. This question asked participants to gauge the severity of different obstacles to the use of data for anticipation and planning, delivery, and evaluation and monitoring.[7] Responses showed that barriers were less likely to influence the use of data for evaluation and monitoring of outcomes compared to anticipation and planning or service delivery. Overall, the five most significant barriers to the effective use of data in Slovenia were identified as being:

1. insufficient awareness among managers and (senior) policy makers
2. insufficient skilled human resources on data management and use
3. insufficient motivation/support among managers and (senior) policy makers
4. lack of financial resources
5. insufficient motivation/support among back-office and frontline civil servants.

At the other end of the spectrum, there was consensus about three areas that were not preventing the use of data in Slovenia. These were sufficient data storage capacities, sufficient guidance for the ethical use of data and public support for the government use of data.

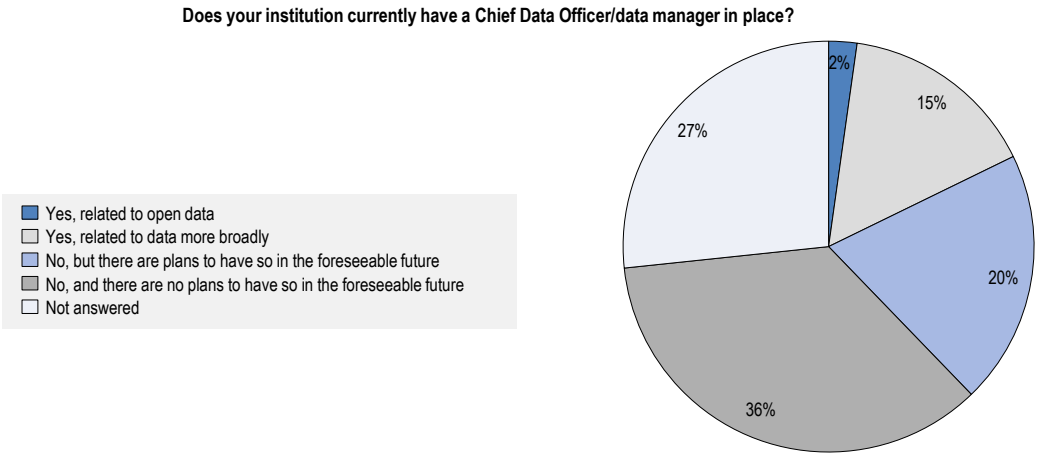
As discussed in the previous section, Slovenia lacks overall leadership for the data agenda, and this issue is similarly present within individual organisations. Two of the five biggest barriers to the effective use of data in Slovenia were identified as being a deficit in the awareness and motivation of managers and senior policy makers. As discussed in Chapter 3 on Skills and Talent, the OECD Framework for Digital Talent and Skills in the Public Sector places a responsibility on all public servants, but especially public servant leaders, to develop a grounding, appreciation and enthusiasm for the OECD's Five Skills for Digital Government (OECD, 2021[13]).

However, there are encouraging signs of local leadership. Although the role of CDO is not recognised at the national level, the Ministry of Health (*Ministrstvo za zdravje*) has a CDO dedicated to OGD while 7 other organisations, including the Municipality of Novo mesto, have a CDO with responsibility for data more broadly. Further positive indications were seen by the plans of a further 9 organisations, including high profile organisations such as the Ministry of Finance (*Ministrstvo za finance*) and the Agency of the

[7] These three topics form the basis of the second pillar of the DDPS Framework, regarding the application of data to generate public value discussed later in this chapter.

Republic of Slovenia for Public Legal Records and Related Services (*Agencija Republike Slovenije za javnopravne evidence in storitve*, AJPES) planning to appoint one. Nevertheless, this leaves 28 organisations that do not currently have, or plan to have, a CDO (see Figure 5.5).

Figure 5.5. Presence of Chief Data Officers (CDOs) in Slovenian public sector bodies



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 44: "Does your institution currently have a Chief Data Officer or data manager in place?"

Aside from the leadership of managers and senior policy makers, the other significant barriers indicated a need to encourage greater operational capacity to support data whether in terms of a suitably skilled workforce, the necessary financial resources or the motivation for civil servants to be more ambitious in the use of data. Few organisations in Slovenia (only 8 out of the 45 surveyed institutions) have teams dedicated to working on data. The reported size of these teams ranged from a handful of people to teams of more than 30, such as the one found in the National Institute of Public Health (*Nacionalni inštitut za javno zdravje,* NIJZ). Furthermore, only three organisations are incentivising the use of data. For an organisation such as IMAD, data is a core part of the organisation's mission, and therefore the importance of encouraging and equipping staff is obvious. However, elsewhere, data is largely seen as a technical pursuit or something to leave only in the hands of statisticians.

Nineteen out of 45 organisations identified that a lack of technical capacities was one of the top 5 challenges and barriers to the use of data; so it is to be welcomed that the MPA's Administrative Academy, in collaboration with experts from Slovenian universities, has developed data-related training courses, and some individual organisations were investing in underlying skills. However, a strategic approach to developing the capacities for coherent implementation has not been a priority. The existing strategy for developing skills in the Slovenian public sector (see Chapter 3 for the analysis of digital skills and talent for the public sector) demonstrates how strategy can drive behaviour and further helps to explain some of the success Slovenia has enjoyed in establishing its strengths in OGD. The skills strategy contains an explicit recognition of embedding a basic understanding of the concept of OGD and the capacities of civil servants to open up that data which then feeds into follow-up actions. In contrast, although there is training available that would support the use and role of data in anticipating and planning, service design and delivery, and evaluation and monitoring, this is not recognised as a strategic priority.

To ensure the sustainability of efforts to establish a data-driven public sector, Slovenia could benefit from developing a cross-sector forum of competent key individuals to help generate momentum and embed a data-driven culture and practice throughout the Slovenian public sector. Establishing such a forum could

have dividends in terms of helping to give public sector organisations examples and inspiration for how data can be applied. Such a community would help to share experimentation and encourage more innovation in testing new ways of using data. Alongside the opportunity to be inspired by how others in government are applying data to generate value, the Slovenian public sector also needs the technical capacity and access to funding to stimulate this activity throughout its institutions. Similar efforts have contributed to creating and sustaining the OGD community in Slovenia, bringing together both government and non-government actors for conferences, hackathons and other events. Developing these communities of practitioners and leaders can help to inspire one another through sharing knowledge and information on existing practices, while also being a forum for identifying priority needs to address. Such a community can complement efforts in developing new strategies (whether organisational, or national) and convening working groups to move forward with removing barriers and incentivising a whole-of-government approach to data.

Rules, guidelines and standards

Alongside organisational and individual capacity, the legal and advisory framework is the other element of the tactical perspective included in the OECD DDPS Framework pillar on data governance. Slovenia's membership of the EU and the influence of that overarching legal environment for data (Box 5.1) is reflected in domestic strengths with regards the legal and regulatory underpinning for data protection and the opening up and re-use of government data. These pieces of legislation have been valuable in establishing Slovenia's strengths in OGD that contributes to the ranking of 10th in the OURdata Index, and 7th in the Open by Default dimension of the DGI (OECD, 2020[16]; OECD, 2020[15]). The foundations for the regulation of data in Slovenia are as follows:

- General Administrative Procedure Act (Zakon o splošnem upravnem postopku ZUP) (Republic of Slovenia, 1999[18])
- Classified Information Act (Zakon o tajnih podatkih ZTP) (Republic of Slovenia, 2001[102])
- Access to Public Information Act (Zakon o dostopu do informacij javnega značaja, ZDIJZ) (Republic of Slovenia, 2003[103])
- Personal Data Protection Act (Zakon o varstvu osebnih podatkov, ZVOP-1) (Republic of Slovenia, 2004[22])
- Law on Spatial Planning (Zakon o urejanju prostora, ZUreP-2) (Republic of Slovenia, 2017[104])
- Information Security Act (Zakon o informacijski varnosti, ZInfV) (Republic of Slovenia, 2018[105])
- Decree on Information Security in State Administration (Uredba o informacijski varnosti v državni upravi) (Republic of Slovenia, 2018[106])
- Regulation on the transmission and re-use of public information (Uredba o posredovanju in ponovni uporabi informacij javnega značaja) (Slovenia, 2016[107])
- Rules of Procedure of the Government of the Republic of Slovenia (Poslovnik Vlade Republike Slovenije) (Republic of Slovenia, 2001[108])

Box 5.1. European Union legal environment for data

The Data Governance Act

On 25 November 2020, The European Commission published the Data Governance Act (DGA), in response to the public consultation on the European Strategy for Data. The consultation served as a means to gauge stakeholders' opinions on the data strategy (including open data, data sharing and data spaces), and as input for several planned initiatives around access to, and re-use of, data. A legislative framework on common European data spaces and an implementing act on a list of high-value datasets under the Open Data Directive, was part of the consultation as well.

The Open Data Directive

As part of the European Strategy for Data, the Open Data Directive functions as a common legal framework for government-held data (public sector information) and is geared towards two key concepts in the European market: i.e. transparency and fair competition.

The General Data Protection Regulation (GDPR)

The General Data Protection Regulation (GDPR) is Europe's data privacy and security law and is the toughest privacy and security law in the world. Though it was drafted and passed by the European Union (EU), it imposes obligations onto organizations anywhere, so long as they target or collect data related to people in the EU. The regulation was put into effect on May 25, 2018.

Source: GDPR (2021[109]), What is GDPR, the EU's new data protection law?; Data Europe (2021[110]), The Data Governance Act & The Open Data Directive

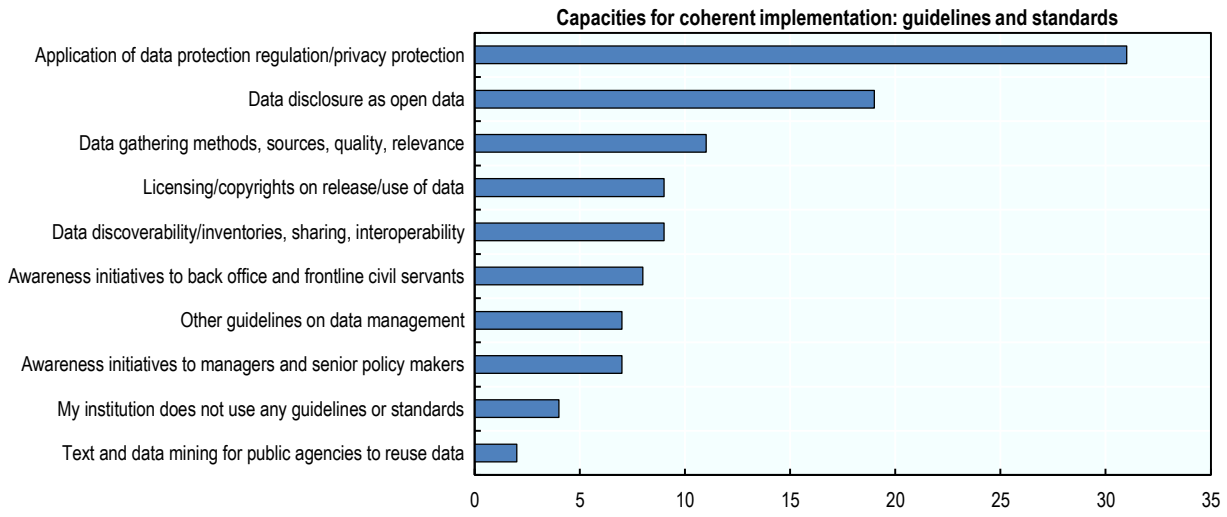
Although the legal framework provides strong foundations, the Workshop on Service Design and Delivery and Data in Slovenia in February 2021 identified that one of the best ways to help establish a data-driven public sector in Slovenia is to unify legislation and reduce its fragmentation. These efforts would make it as simple as possible to understand and as accessible as possible to civil servants working to make policy, design services and evaluate outcomes. Any efforts to revisit legislation could also improve the situation with regards to the most frequently reported challenge and barrier to the successful use of data in Slovenia: that legislation and regulations slow down the capacity of government. This point was made particularly in relation to the European Union's General Data Protection Regulation (GDPR) (European Union, 2016[111]) but also reflected a frustration with existing legislation not having the agility and flexibility to reflect changing approaches and opportunities.

Beyond official statutes published in the Official Gazette of the Republic of Slovenia, a range of guidelines and standards exist to support the handling of data. These include:

- Guidelines for Information Solutions Development (Republic of Slovenia, 2018[85]) covering data gathering methods, sources, quality and relevance
- Semantic Interoperability Implementation Strategy (Republic of Slovenia, 2018[112]) covering data discoverability, data inventories, sharing and interoperability
- Manual for the Opening of Public Sector Information (Republic of Slovenia, 2016[113]) to support OGD with associated standards being based on those established through international standards-setting bodies
- A new training programme developed by the MPA's Administrative Academy covering communication and awareness raising

When asked about their organisational approach to guidelines and standards, the institutions shared a mixed picture of how effectively these ideas were known and understood in Slovenia. The most widely recognised guidelines and standards (identified by 31 out of 45 organisations) were those relating to the application of regulations concerning data and privacy protection. While again, emphasising the health of OGD in Slovenia, 19 out of 45 were comfortable with the responsibilities around data disclosure. However, as Figure 5.6 shows, there was less evidence of usage of these guidelines in other areas. This figure also highlights the importance of equipping public servants across all levels of responsibility to develop digital government- and data-related skills as only 20% of organisations reported any initiatives aimed at either managers or back office and frontline civil servants.

Figure 5.6. Institutional usage of guidelines and standards in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 46: "On which of the following topics do you have guidelines or standards in use?"

In addition to the central resources provided by the MPA, several organisations had developed sector specific approaches including IMAD, NIJZ, and the Pension and Disability Institute of Slovenia (*Zavod za pokojninsko in invalidsko zavarovanje Slovenije*, ZPIZ) owing to the particularly data intensive nature of those organisations. One of the municipal governments reported that they might rely on guidelines and standards developed by external suppliers. The limited leadership for the data agenda and absent strategy for data may mean some of this is duplicated effort and that part of any future strategy could look to adopt a more coherent approach for resourcing different agencies in government.

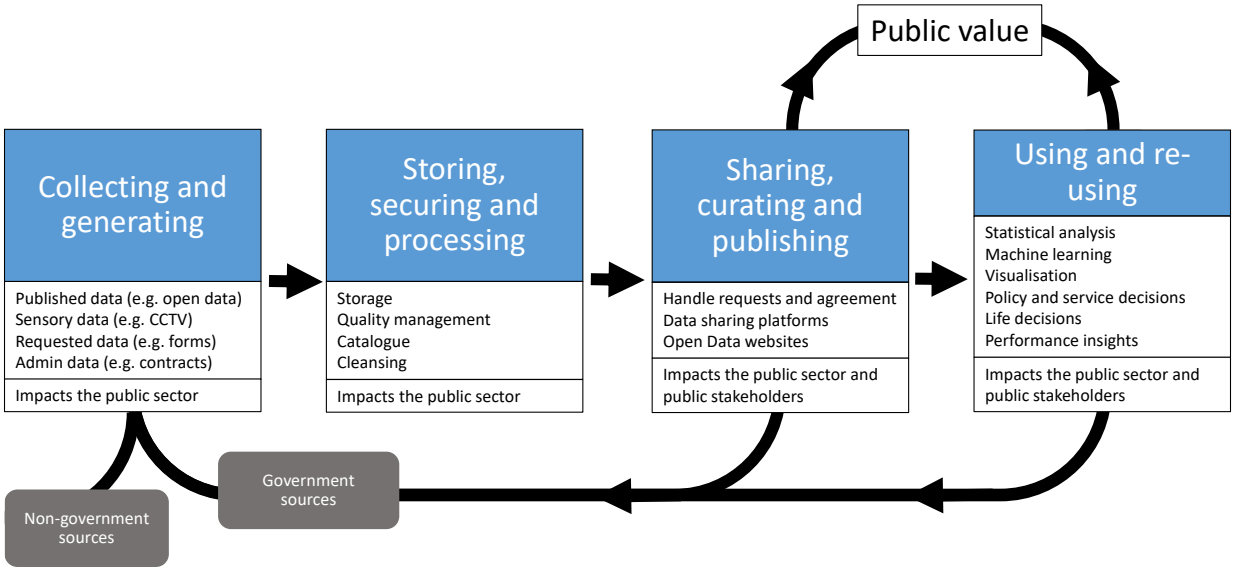
From a tactical point of view, Slovenia has good foundations when it comes to regulation that can allow for the flow of data throughout the public sector. However, as discussed above, there is a greater challenge in terms of the capacity for implementation in terms of organisational leadership and strategies, access to resources, skills and guidance, at least in terms of internal, closed data. This contrasts with the experience of OGD in Slovenia where not only financial investments but also prioritisation of efforts and strategic approaches across these areas have paid dividends. The skills strategy recognises the importance of embedding a basic understanding of OGD and developing the capacities of civil servants to open up data, an approach complemented by the Manual for the Opening of Public Sector Information (Republic of Slovenia, 2016[113]). Although a gap in data-related skills for policymaking and service delivery has been identified and practical training developed, this area has not benefitted from the same level of strategic response as that seen for OGD in terms of developing a strategy and accompanying guidance.

Enabling delivery throughout the Government Data Value Cycle

The third aspect of establishing the necessary data governance to support a data-driven public sector focuses on the practical needs for delivering value throughout the Government Data Value Cycle (see Figure 5.7) through the provision of reliable data infrastructure and high quality data architecture. Ensuring that mechanisms exist for data to flow throughout the Government Data Value Cycle whether through technical solutions or the removal of any legal obstacles should be a priority for any government considering its path to becoming a data-driven public sector. In the case of Slovenia, there is an impressive maturity to the combined value of enabling legislation and regulations, suitable guidance, reliable base registers, the Chest (*Skrinja*) data warehouse and Business Intelligence system, and the interoperability platform, TRAY (*Pladenj*) (see Box 5.2).

The Government Data Value Cycle identifies four phases of data in government from 1) initial collection or generation, through 2) its storing, securing and processing, before 3) the sharing, curating and publishing of that data and then finally 4) its use and re-use. The first half of the process concerns how the public sector manages and looks after its responsibility to the data it generates and/or collects and holds while the final two stages offer opportunities to add public value either through the improvement of policy and services or the opportunities generated by OGD.

Figure 5.7. Government Data Value Cycle



Source: van Ooijen, Ubaldi and Welby (2019[17]), "A data-driven public sector: Enabling the strategic use of data for productive, inclusive and trustworthy governance", https://doi.org/10.1787/09ab162c-en.

Building public sector intelligence and creating public value with data does not happen in a linear fashion but through a cycle, which involves feedback loops throughout the process. Data can inform and affect the nature of decision-making, which in turn can lead to the production and collection of different or more data. As such, the Government Data Value Cycle is useful in considering the design of data strategies, whether at a national or institutional level. Meeting the needs of government and citizens at each stage of the cycle allows data to flow more easily into the next. Such an approach fulfils the most ambitious ideals of digital government maturity by enabling a digital-by-design approach to public services that can proactively address the needs of citizens and businesses in the delivery of end-to-end services.

In Slovenia, certain aspects of the cycle are well addressed. Thirty-two of the 45 surveyed institutions collect, process and/or reuse data on a regular basis. The most frequently collected are identifiable data for citizens and businesses followed by non-personal data covering, for example the environment, highways or crops. Some organisations are also using anonymised data relating to citizens and businesses. One of the least problematic issues identified in terms of using data was around needs for data storage while there tends to be greater evidence of confidence to use data for analysis and evaluation with 1 in 3 organisations having initiatives to strengthen the analysis of data for these purposes. Moreover, ZPIZ shared several initiatives that have helped it to deliver greater value to users. One of these concerned the implementation of predictive analytics to strengthen data collection and processing efforts in support of decision-making while another reflected the transformative possibilities of bypassing certain steps in the value cycle. Historically, ZPIZ would have had to ask businesses to provide data on wages, insurance periods and contributions paid to the government but, by making a change to legislation, ZPIZ can now access this data directly from the tax authority, greatly reducing the administrative burden for businesses.

There is a healthy eco-system of data sharing and re-use in Slovenia, with 27 organisations running services using data supplied from elsewhere in government and 22 collecting data that provides the basis for services elsewhere in government. Only 4 institutions stated that they did not regularly share data. The majority of data sharing, accounting for 31 out of 45 examples, comes from organisations responding to an individual request, with 21 out of 45 having more standardised internal-to-government agreements for ongoing data sharing, while only 11 organisations reported sharing their data through base registers. As is consistent with the level of OGD maturity in Slovenia, almost half the public sector bodies surveyed reported sharing data through a dedicated OGD website, whether their own or via OPSI.

Part of the reason for such a high prevalence of data sharing in Slovenia is that the Access to Public Information Act (ZDIJZ) (Republic of Slovenia, 2003[103]) creates a formal requirement for Slovenian organisations to share the data they produce. The legislation not only details what needs to be published but requires public sector bodies to enable the re-use of any generally accessible public sector information by making it available in open formats and machine-readable forms, together with metadata. Further important backing to simplifying the exchange of data is provided by Article 139 of the Administrative Procedure Act (Republic of Slovenia, 1999[18]) that says officials carrying out their work should be able to obtain information free of charge from official records. As a result, few central or federal ministries and agencies charge a fee when they share data with other public sector organisations. However, some laws still require some organisations including the Health Insurance Institute of Slovenia (*Zavod za zdravstveno zavarovanje Slovenije*, ZZZS) and the Ministry of Education, Science and Sport (*Ministrstvo za izobraževanje, znanost in šport*) to charge for their data. Moreover, when asked to identify the biggest challenges in using data, eight organisations ranked it highly. This indicates that, while it is not a widespread issue, this can be a significant obstacle for those organisations that do find themselves unable to access the data they need due to fees.

Since 2011, the MPA has led the development of the Slovenian National Interoperability Framework as a central, strategic focal point for co-ordinating interoperability. The Public Administration Development Strategy 2015-2020 (Republic of Slovenia, 2015[7]) acknowledged the importance of data in the context of interoperability to support more effective services and can be seen in efforts to address questions of data infrastructure and architecture. The Editorial Board for the National Interoperability Framework consists of experts from various fields working to raise awareness on the importance of interoperability within organisations, across the Slovenian public sector and in the context of the European Union.

As discussed in Chapter 4, transforming the experience of government at scale and with pace involves making sure that any ecosystem of enabling resources and tools works for the smallest and least provisioned organisations. In the context of the data infrastructure for the Slovenian public sector, the range of data available for reuse as well as the TRAY interoperability suite of tools are critical (see Box 5.2). There is ongoing investment to improve the capacity for semantic interoperability with the Semantic Text Analyser project focusing on a central vocabulary alongside a register of codes lists and a repository of

reusable core data models led by the MPA. Central vocabulary plays a key role in ensuring semantic interoperability because it ensures a uniformly and clearly defined set of key terms being used in the public administration. All terms in the central vocabulary have a clear, unambiguous and non-redundant definition and are organised into a hierarchical structure.

Box 5.2. Slovenia's interoperability platform TRAY

Launched in 2012, TRAY provides a reliable, simple and secure route for exchanging data between different organisations. It reconciles different data sources and is critical to enabling the once-only principle of not requesting information from users that is already held within government. This relies on the National Interoperability Framework and specifically the Semantic Interoperability Implementation Strategy (Republic of Slovenia, 2018[112]).

TRAY handles over 50 different data sources and simplifies the ability of relying parties to access the data they need. TRAY takes multiple data sources with differing speeds of access, timeliness of publication and complexity of underlying data architecture and simplifies things so that government teams can focus on meeting the needs of their users, not spending time sourcing, cleaning and integrating the data they need.

TRAY consists of several modules that simplify the experience for accessing data. One of these is the IO Module which periodically takes a copy of the original dataset held in a legacy environment and wraps it in Application Programming Interfaces to simplify integration from third party services while the Asynchronous module surfaces simple datasets, such as Comma Separated Value files.

TRAY is built on top of a platform to administer access rights. This ensures the safety, reliability and security of the data being exchanged.

In the future, TRAY could support SI-PASS in providing citizens and businesses with visibility of their data flows throughout the public sector.

While there is enthusiasm for TRAY, several influential organisations responsible for primary registers do not use TRAY to allow access to their data. Furthermore, observations were made during the review that although TRAY provides good connections between organisations and the free flow of data among them, there is not always agreement and standardisation about definitions for data or its architecture. Indeed, 21 institutions identified interoperability and standardisation of data as one of the top 5 challenges and barriers facing the country. This was particularly highlighted in the context of the health sector as well as in the variety of experiences across the Slovenian public sector. In this respect, some of the legacy overheads of older data regimes and outsourced suppliers with responsibility for data architecture and infrastructure are an ongoing challenge that the Slovenian public sector will need to address to enable the easy exchange and interoperability of data.

A further contribution to the data-related enablers in Slovenia is the continuing project to establish a data warehouse and business intelligence as part of the Chest programme. Led by the MPA, Chest is hosted on the Slovenian State Cloud (DRO) infrastructure and gives government agencies on-demand access to data warehouse and business intelligence services. Chest enables interactive insight into real-time data and forecasting analytics as new dimensions to radically improve decision-making and forecasting. Chest currently includes data on public sector wages, public procurement and commonly re-used code lists and there is ongoing interest in expanding its data to include data on human resources and sources to support social assistance and inspection procedures. In December 2020 the impact of Chest was acknowledged by receiving an award from the Slovenian Association Informatika (*Slovensko društvo INFORMATIKA*).

Another valuable part of Slovenia's data infrastructure is its catalogues of data which can help map the needs for data across the public sector and identify where data flows easily and where there might be

barriers to sharing, interoperability and proactive service design. Even though there are no explicit or formal requirements for a single data inventory, 60% of data has been captured with more than half of surveyed institutions having a data inventory themselves, which 11 of the 45 described as "exhaustive". A further 8 organisations are in the process of developing their own data catalogue. OPSI, the national open data website, has been iterating its Application Programing Interface (API) catalogue to make it easier for third parties (including companies, researchers, academia, local government or non-governmental organisations) to access public sector data in machine-readable formats. This forms part of the European Union's Open Data Directive that creates a mandatory expectation of providing API access to High Value Datasets (European Union, 2019[114]).

Slovenia's base registers cover a wide range of topics and enjoy frequent and regular usage. During the survey of public sector bodies, over 30 separate registers were identified (see Table 5.1), with the most frequently cited being the Population Register, Spatial data and the Business Register. The success of Slovenia's approach to base registers is seen in the fact that of the institutions that collect, process and/or reuse data on a regular basis 66% use registers for identifiable data on citizens or businesses.

Table 5.1. Availability of data in Slovenia

Organisation providing register	Name(s) of the register
Ministry of the Interior	Population Register, Register of Citizenship, Register of permanently and temporarily resident citizens, Record of permanently and temporarily resident foreigners, Record of passports, Record of identity cards, Record of public documents for international protection Central record of weapon ownership
Surveying and Mapping Authority	Real Estate Register, Accommodation Establishments Register, Spatial data including Land Cadastre, Buildings Cadastre, and Register of Spatial Units
Ministry of Public Administration	Central record of state property
Supreme Court	Land Register
Agency of the Republic of Slovenia for Public Legal Records and Related Services	Business Register, Register of transaction accounts, Public Sector Authorities Register
Financial Administration	List of taxpayers, Tax data, VAT register
Ministry of Justice	Criminal record
Employment Service of Slovenia	Register of Employment, Register of Unemployed and Jobseekers
Ministry for Labour, Family and Social Affairs	Registers of Labour, Data on social transfers
National Health Insurance Institute	Healthcare Insurance Database
Ministry for Infrastructure	Register of vehicles, Register of driver's licences
Ministry of Agriculture, Forestry and Food	Register of Agricultural Holdings
Institute of Information Science	Slovenian Current Research Information System, Co-operative Online Bibliographic System & Services
National Statistics Office	Statistical register on employees, General statistical data
Ministry of Education, Science and Sport	Central Evidence of Education, Students and Graduates Register, Central Register of Participants in Education, Records of educational institutions and educational programs
Agency for Medical Products and Medical Devices of the Republic of Slovenia	Central database of Medications
National Institute of Public Health	Register of healthcare providers and healthcare workers

Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), Digital Government Survey of Slovenia, Public Sector Organisations Version, Questions 53, 56 and 57 on the use and ownership of base registers

In addition to Slovenia's base registers and TRAY, half of the surveyed institutions reported making individual requests or establishing government-to-government agreements to secure the data they need. Moreover, around one in three organisations are regularly accessing data from the open data website (OPSI). Data from the private sector is also an important source of data, which highlights the importance and relevance of the forthcoming OECD Recommendation on Enhanced Access and Sharing of Data (see Box 5.3).

Box 5.3. OECD project on enhancing access to and sharing of data (EASD)

The OECD has undertaken extensive analysis to assess to what extent enhanced access to data can maximise the social and economic value of data. The November 2019 report "Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies" identifies best practices to balance different interests in a way that ensures that the benefits of data access and sharing are reaped, while the associated risks are managed and reduced to a socially acceptable level. The report is based on the findings of the OECD expert workshop "Enhanced access to data - Reconciling risks and benefits of data re-use" held in Copenhagen, Denmark in October 2017.

The OECD is now working towards the development of general principles for enhancing access to and sharing of data across the economy in a coherent manner. These principles would also help ensure the coherence and continued relevance of the current OECD legal instruments that provide guidance and best practices on issues such as data openness, transparency, stakeholder engagement, intellectual property rights (IPR), and pricing.

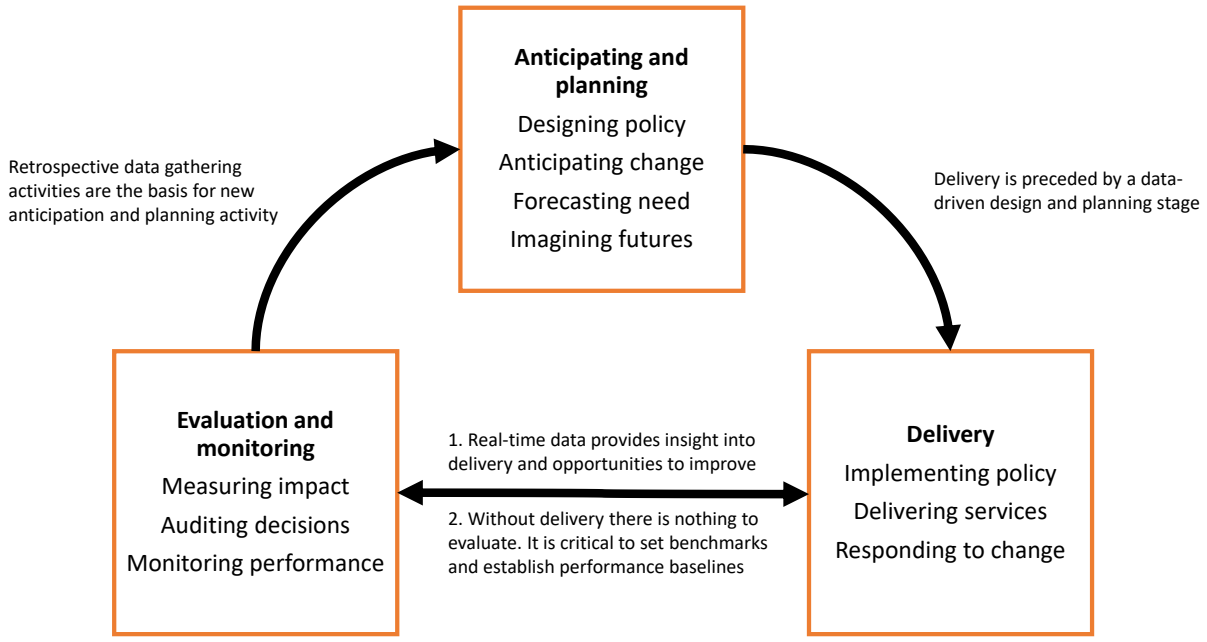
Source: OECD (2021[115]), Data governance: Enhancing access to and sharing of data, https://www.oecd.org/sti/ieconomy/enhanced-data-access.htm

The final consideration in enabling delivery throughout the Government Data Value Cycle is the quality of data. Of all the barriers identified by the institutions, the quality of registers was the least problematic, with only 6 institutions saying that while registers are valuable their quality is low. Efforts to ensure the quality of data throughout the Slovenian public sector are handled in several ways. Eleven out of the 45 institutions take action to enforce standards for the treatment of data while 16 take a gentler approach to ensure quality through guidelines. However, a recurring theme in the conversation about data in Slovenia raises questions about how consistently such approaches are taken between organisations. In a minority of cases, the quality is assured through in-house specialisms or external support, while 11 out 45 are investing in training for civil servants to help them produce better quality data. Finally, 9 of the surveyed institutions carry out regular audits. However, there is not always transparency over the quality assessment of these datasets, with no obligation of the data providers to share their methodology or outcomes.

Applying data to unlock public value

The purpose of achieving effective data governance is to allow a country to unlock the public value associated with the use, and re-use of data. In moving from governance and technical implementation into application the associated opportunities fall into the three categories of anticipation and planning, delivery, and evaluation and monitoring. As shown in Figure 5.8, these are connected and reinforcing behaviours.

Figure 5.8. Where data-driven public sector approaches can generate public value

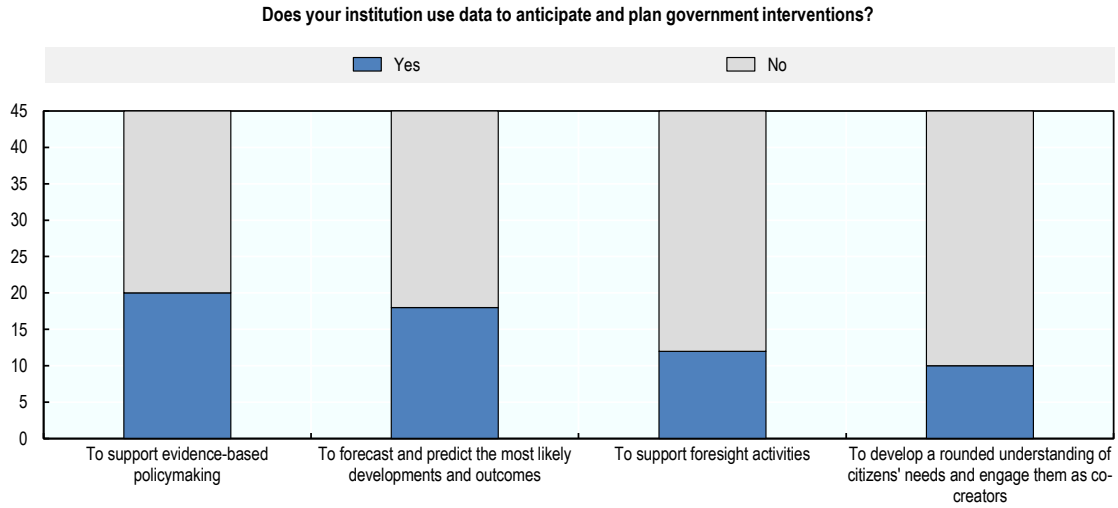


Source: OECD (2019[12]), *The Path to Becoming a Data-Driven Public Sector*, https://dx.doi.org/10.1787/059814a7-en.

Applying data for anticipation and planning

A data-driven approach strengthens the ability of countries to look ahead and helps governments prepare to respond proactively rather than reactively, based on knowledge and evidence rather than experience and protocol. Using data can enable more proactive decision-making and policy planning, better detection of societal needs as they emerge and facilitate better predictions for future needs. Data-enabled prediction and modelling techniques support governments in anticipating societal, economic and natural developments that are likely to occur in the future. They may also capture early warnings and better assess the need to intervene, design the appropriate policy measures and anticipate their expected impacts more precisely (OECD, 2019[12]). Almost 50% of institutions in Slovenia are using data in some way to equip and prepare themselves for future developments and strengthen the basis for policy making in the country. As Figure 5.9 shows, this includes supporting evidence-based policy making, forecasting and predicting the most likely developments and outcomes, undertaking foresight activities, and developing a deeper and more rounded understanding of the needs of citizens.

Figure 5.9. Use of data to anticipate and plan government interventions in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), Digital Government Survey of Slovenia, Public Sector Organisations Version, Question 59: "Does your institution use data to anticipate and plan government interventions?"

The survey surfaced examples of data use to inform the design of future policy. The Ministry of Education, Science and Sport shared that data contained within the Slovenian Current Research Information System (SICRIS) relating to researchers, research organisations, research projects and research infrastructure was informing the plan for future science strategies and policies. NIJZ shared the example of how data was enabling preventive health programmes to be developed to allow for better health coverage. Finally, the Ministry of Health provided an example related to tobacco, which accounts for more than 3 000 deaths each year and is the leading preventable risk factor for premature death in Slovenia. Data shows that tobacco use is attributed to 19% of all deaths in adults over 30 years of age. Those data and monitoring of the use of tobacco products led to the development and adoption of a new law restricting the use of tobacco and related products in 2017. The law introduces plain packages, licenses for selling tobacco products, identification codes and codes intended for the traceability of tobacco products, and other measures to reduce tobacco use.

A second set of examples was provided concerning the use of data for forecasting purposes. IMAD carries out regular macroeconomic forecasting to understand the economic and social effects of changes in the price of goods, the impact of big national projects and the repercussions of changes in legislation. The mission of the Slovenian Environment Agency (*Agencija Republike Slovenije za okolje*, ARSO) is to monitor, analyse and forecast natural phenomena and processes in the environment to reduce natural threats to people and property, making the use of data for forecasting a priority. ZPIZ is using predictive analytics for risk management, while the Employment Service of Slovenia (*Zavod Republike Slovenije za zaposlovanje*, ZRSZ) uses data to actively plan employment measures, including predicting the level at which workers may be at risk of redundancy. Data is also being used to design the future operating model of the Slovenian public sector with the Supreme Court, using data to predict and address human resource needs.

A third area for which examples were provided is the use of data to model the outcome of a proposed change. The Ministry of Labour, Family, Social Affairs and Equal Opportunities (*Ministrstvo za delo, družino, socialne zadeve in enake možnosti*) uses data to model any implications and outcomes from proposed changes to policy or legislation. ZZZS was able to calculate the impact of government proposals to replace an existing model of health insurance for co-payment with a compulsory contribution. This approach is supported by thinking around Rules as Code, discussed in Box 5.4.

Box 5.4. Rules as Code

The idea of 'Rules as Code' is less about technology and instead about changing the way in which government approaches one of its core activities: rulemaking. Government rules are found in a variety of places including legislation, regulations or policy documents, but are not produced in ways that can be readily consumed by machines.

The 'Rules as Code' movement is a reaction to the analogue nature of the systems that underpin the production of government rules, and an effort to address several of the problems that these systems cause. At its simplest 'Rules as Code' anticipates that government rules (legislation, policy, business rules) could be created in such a way that they could be consumed by machines (namely, computers).

This represents a significant departure from the status-quo of how governments create rules and instead calls on governments to integrate established and new technologies into the rule creation process.

Current thinking proposes three ways of conceptualising 'Rules as Code':

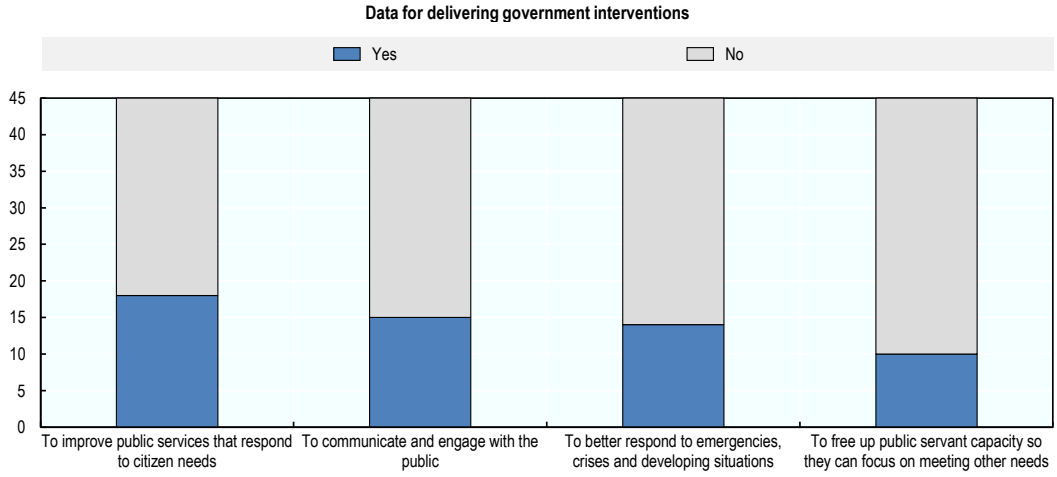
1. As an output: the result is a version of the rules in code that can then be understood and used by a computer.
2. As an approach, as well as an output: the result changes the process of drafting legislation, regulation and policy to enable the creation of rules that can be read and used by computers. Conceptualised in this way, it is about changing *when*, *how*, *by* and *for whom* rules are made.
3. As a fundamental restructuring of the rule creation process: machine-consumable versions of legislation, regulation and policy are part of the initial drafting stage rather than produced at its end. This means authoritative, machine-consumable version of rules being produced by governments for third party consumption not through the efforts of individual end-users.

Source: Mohun and Roberts (2020[77]), Cracking the code: Rulemaking for humans and machines, https://dx.doi.org/10.1787/3afe6ba5-en.

Applying data for delivery

One of the most compelling opportunities for a data-driven public sector is the way in which the application of data can reshape the opportunities for design and delivery in terms of better predicting policy solutions, engaging with citizens as co-value creators and better responding to the needs of citizens. Almost 50% of institutions in Slovenia are using data in the delivery of services. As Figure 5.10 shows, this includes improving public services that respond to citizen needs, freeing up public servant capacity so they can focus on meeting other needs, communicating and engaging with the public, and better responding to emergencies, crises and developing situations.

Figure 5.10. Use of data for delivering government interventions in Slovenia



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), Digital Government Survey of Slovenia, Public Sector Organisations Version, Question 60: "Does your institution use data to deliver government interventions?"

Article 139 of the Administrative Procedure Act (Republic of Slovenia, 1999[18]) obliges public officials to source data from existing records rather than requesting it from citizens and is therefore the legal foundation for Slovenia's implementation of the once-only principle. However, the tools that support this access (TRAY, Chest and other solutions) lack legal basis for data processing without signing specific Service Level Agreements and as such, Article 139 requires further, clearer regulation to be as effective as possible. Nevertheless, data directly requested from citizens is only the sixth most frequently cited data source behind data accessed via TRAY and the base registers. The effectiveness in re-using data held by other parts of government is critical in enabling data-driven interoperability as a transformative enabler for user-driven proactiveness and data-driven services.

One example of how a coherent approach to data can enable better delivery was provided by the Ministry of Agriculture, Forestry and Food (*Ministrstvo za kmetijstvo, gozdarstvo in prehrano*) and its work to implement in Slovenia the European Union's Common Agricultural Policy. Small farmers are a significant part of the Slovenian economy, with 30% of the country being agricultural land. In order to distribute subsidies to the farmers, 58 local administrative units mapped these farms with the data collated centrally and available online. The service connects different sources of data: the population register, the cadastre and spatial units for addresses. When farmers visit the office, they are asked for an identification number, and all their data is populated automatically, making their interactions with the government as simple as possible. The data has been made publicly available since 2006 and is being used on a daily basis, and not only from within Slovenia.

NIJZ has a well-established suite of eHealth services including ePrescription, eReferral, and clinical data exchange and sharing via a national data interoperability platform. Citizens are able to access an overview of their status through a dedicated website that brings together all this data. Additionally, there is extensive monitoring of morbidity and mortality rates, especially with regards communicative diseases. There is also the use of data internally to consider the resource profile of healthcare providers and professionals to enable resource planning in the healthcare system.

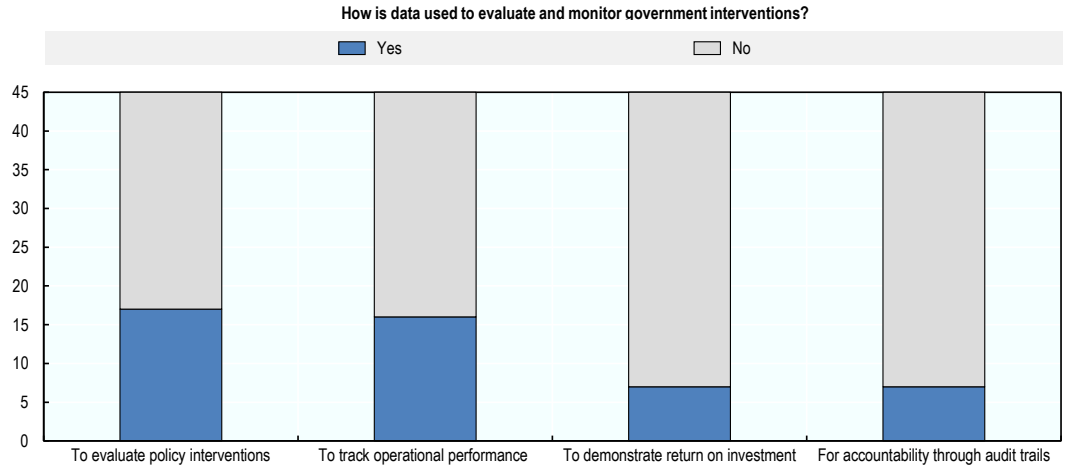
Beyond the delivery of services, the Ministry of Finance (*Ministrstvo za finance*) is looking to the use of real-time data to adjust policy in order to ensure the stability of the Slovenian economy. This involves the ongoing balancing of public finances alongside establishing the conditions for stable economic growth

including the management of a tax policy to stimulate the competitiveness of the Slovenian business environment.

Applying data for evaluation and monitoring

In accessing real-time information about the way a service is being used, governments can meet the needs of their users in a timely fashion. Equally, when designing policy interventions, the importance of thinking about how to baseline, and then measure, the return on investment and impact of a given set of activities is important for understanding the value of an investment and consequently building trust and demonstrating accountability to the public. Almost 50% of institutions in Slovenia are using data to evaluate and monitor their activities. As Figure 5.11 shows, this includes for evaluation of policy interventions, tracking of operational performance, demonstration of return on investment, or accountability through audit trails.

Figure 5.11. Use of data for evaluation and monitoring of Slovenian government interventions



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 61: "Does your institution use data to evaluate and monitor government interventions?"

This area of applying data to generate public value produced the highest quantity and widest range of examples from the institutions surveyed during the review.

The first collection of examples related to measuring the performance of policy with the Ministry of Culture, ZRSZ and Spirit Slovenia all identifying their activity in this way. The Ministry of Education, Science and Sport uses SICRIS to monitor the effects of funding and other activities resulting from the current policies of strategic documents and other government policies. At the Ministry of Labour, Family, Social Affairs and Equal Opportunities external experts are commissioned to evaluate the implications and implementation of any new legislation. This reflects a strength in the Slovenian public sector of working closely with academia to explore and evaluate how government is performing. During the review, the OECD team heard that the Slovenian public sector is involved with over 50 different researchers with 30% of those efforts shaping government policy and decision-making.

The second group of examples relates to internal audit and external transparency. The Commission for the Prevention of Corruption uses data about government operations and spending when working on individual cases of allegations of corruption. There are several websites publishing data on an ongoing

basis to allow members of the public to carry out similar exercises including STATIST providing detail on public procurement and ISPAP publishing the salaries of public sector employees.

The third area where data is being used for evaluation and monitoring is in establishing feedback loops between performance and follow-up activities to respond. The active evaluation of delivery can allow policy to iterate, with the example of the Ministry of Health (*Ministrstvo za zdravje*) targeting financial resources to open up greater access for those patients whose waiting times were identified as being too long. The Pension and Disability Insurance Institute of Slovenia collects rich performance data and audit trails throughout its business that enables it to constantly monitor case management and intervene, delegate or involve other units in an agile way. While the Supreme Court is implementing dashboards to measure the performance of courts.

The fourth area considers a focus on performance data about transactional services:

- The Ministry of Defence publishes real-time data about its performance in handling emergency calls.
- The National Institute of Public Health of Slovenia collects and publishes monthly data associated with its eHealth suite of services (including eAppointments, waiting times and monitoring of vaccination status).
- Spirit Slovenia currently gathers qualitative surveys to understand its performance but, as it develops its online infrastructure, it is beginning to collect real-time insights.

There was evidence of quantitative efforts to understand the performance of services, with the Surveying and Mapping Authority of the Republic of Slovenia using web analytics to understand visitor numbers and the data that is being requested. The Ministry of the Interior has a dedicated performance monitoring system called MNZMON which measures the execution time of individual transactions for users and the responsiveness of the overall system in real-time. Elsewhere the peer review team was pleased to hear about qualitative research that is being carried out to understand user experiences (further discussed in Chapter 4). The Supreme Court of the Republic of Slovenia has implemented satisfaction surveys that are used to understand the experience of different user communities, whether professional, lay or internal to the organisation. Within AJPES, overall satisfaction is measured through a survey and complements an assessment of strategic indicators including overall numbers as well as response times. At ZPIZ, there are also qualitative satisfaction surveys carried out alongside efforts to capture quantitative data. In one case, ZPIZ was they were able to identify the savings as a direct result of new digital service that stopped paper reports being sent to over 600 000 beneficiaries each month.

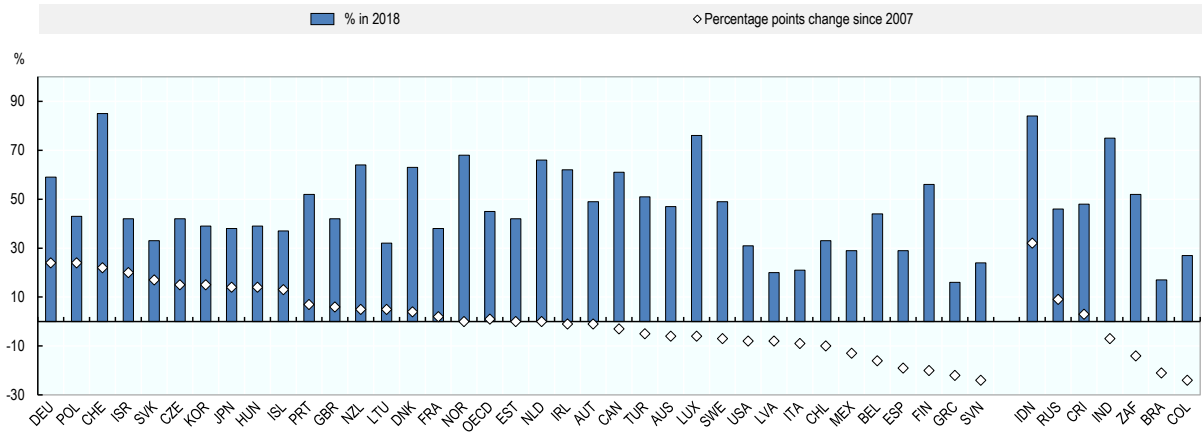
However, in line with the discussions in Chapter 4 on service design and delivery there is not yet a user-driven understanding of how data can be gathered and insights introduced. The majority of examples provided during the review were of arms-length quantitative or qualitative research and lacked a widespread appreciation for the importance of taking a service design approach that understands whole problems, designs the solution from end to end and actively involves the public on an ongoing basis to iterate towards better solutions. As more services are made available through eUprava, there is an opportunity to establish a more sophisticated idea of service performance and establish how service teams can learn from and apply those insights to improve services on an ongoing basis.

Data for trust

Trust is a particularly critical issue in Slovenia. Figure 5.12 shows that of all the countries analysed by the Gallup World Poll (2018[19]), Slovenia has experienced the most significant decline in confidence in national government with a 24 percentage point decline since 2007. This decline has taken place despite a strong legal basis for handling and opening up access to data, as well as impressive OGD work, transparency

over procurement and public sector salaries, and several websites seeking public influence over government including stopbirokraciji.gov.si (Stop Bureaucracy) and predlagam.vladi.si (I Propose).

Figure 5.12. Confidence in national government in 2018 and its change since 2007



Source: Gallup, (2018[19]), *Gallup World Poll*

The way in which countries approach the digital government agenda influences the well-being of citizens in terms of being responsive to their needs, protective of their welfare and trusted to act with respect and competence (Welby, 2019[116]). Increasingly citizens are aware of the realities of how their data can be exploited and misused and have high expectations of government in its handling of their personal information. As a result, the public discourse around the use of data is incomplete if it does not acknowledge that data can be exploited and misused. If governments wish to ensure that efforts to maximise the public value of data build, rather than diminish trust, then ethics, privacy and consent, transparency and security cannot be optional

Ethics

In transforming the design and delivery of services, the exchange of data from one organisation to another may be increasingly desired for adding value but may mean data is being used in ways that were not clearly stated when it was first collected. Moreover, as governments use data to anticipate and forecast future demand or model possible outcomes, it is important that any personal data is anonymised and that, as far as possible, bias is identified and understood. This is true when it comes to the role of machine learning and data in the training of neural networks. While algorithms can provide powerful ways for delivering services more quickly and distilling more information than humans could, it is not without its risks (van Ooijen, Ubaldi and Welby, 2019[17]; O'Neil, 2016[117]).

During the Workshop on Service Design and Delivery and Data in Slovenia in February 2021 a lack of awareness regarding data ethics was identified within the public sector, which was indicated to follow from a lack of clear centralised vision and strategy with regards to data ethics in the public sector. As discussed throughout this chapter, several of the elements that are needed to achieve a data-driven public sector require a level of co-ordination, oversight and leadership that is currently not present in Slovenia.

Although 16 organisations felt that there was a strong basis for ethics in the use of data in Slovenia many of the responses cited legal instruments such as those discussed earlier in this chapter for opening up access to data or GDPR. There was less evidence of insight into the practice of an ethical approach to data as envisaged by the OECD Good Practice Principles for Data Ethics in the Public Sector in Box 5.5.

Box 5.5. The OECD Good Practice Principles for Data Ethics in the Public Sector

The Good Practice Principles for Data Ethics in the Public Sector support the ethical use of data in digital government projects, products, and services to ensure they are worthy of citizens' trust. They were produced by the OECD Working Party of Senior Digital Government Officials (E-leaders) and are the result of the activities of its Thematic Group on Data-driven Public Sector under the leadership of Netherland's Ministry of the Interior and Kingdom Relations with the participation from OECD member and partner countries. They are:

1. Manage data with integrity
2. Be aware of and observe relevant government-wide arrangements for trustworthy data access, sharing and use
3. Incorporate data ethical considerations into governmental, organisational and public sector decision-making processes
4. Monitor and retain control over data inputs, in particular those used to inform the development and training of AI systems, and adopt a risk-based approach to the automation of decisions
5. Be specific about the purpose of data use, especially in the case of personal data
6. Define boundaries for data access, sharing and use
7. Be clear, inclusive and open
8. Publish open data and source code
9. Broaden individuals' and collectives' control over their data
10. Be accountable and proactive in managing risks

Source: OECD (2021[23]), Good Practice Principles for Data Ethics in the Public Sector, https://www.oecd.org/gov/digital-government/good-practice-principles-for-data-ethics-in-the-public-sector.pdf.

Privacy and consent

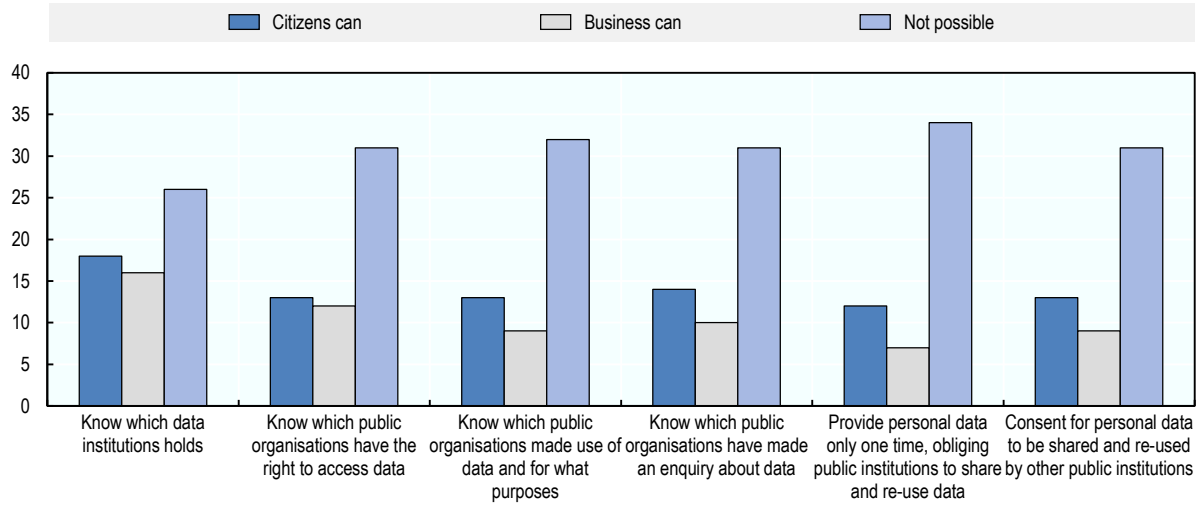
Data protection is taken very seriously in Slovenia, with the highest response rate for any question being the 37 out of 45 organisations identifying the formal requirements to protect the privacy of citizens when it comes to data collection, storage, sharing processing and publishing, in line with the regulations discussed earlier in the chapter. Those regulations are complemented by internal organisation-specific regulations and explicit requirements regarding the handling of data in a sector-specific context whether for healthcare, pensions, welfare entitlement or the management of specific base registers. All this comes under the oversight of the Information Commissioner, who has been responsible for developing over 30 guidelines and providing in excess of 3 000 opinions to which the Slovenian public sector can refer.

A further significant part of the privacy discussion in Slovenia benefits from the collective efforts of European Union member countries to address cross-cutting issues such as those associated with data protection and citizen rights to privacy. GDPR (European Union, 2016[111]) has shifted expectations in Europe, and around the world, for how personal data is treated. Reflecting its provisions, Slovenian law enshrines these legal protections alongside existing Freedom of Information legislation with the country's Information Commissioner as the Supervisory Authority.

Although institutions were aware of their responsibilities under GDPR, there was a limited understanding of how to treat data in a user-centred and citizen-driven way, as well as a lag in enabling citizens and businesses to express their rights in practice. Figure 5.13 shows that in the majority of cases it is not

possible for citizens or businesses to know about the data that is held or the use to which it has been put. The MPA is working to increase the availability and visibility of this information through the "My eGovernance" section of eUprava which gives citizens a real-time view of their data, roles, assets and engagement with the country.

Figure 5.13. Extent to which Slovenian citizens or businesses can view how their data is used



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 68: "Please check the boxes in the table below to indicate whether citizens and businesses can do the following in practice"

Transparency

In addition to ensuring that data is treated ethically and that privacy is protected and citizen control of data is prioritised, a third area to support trust in the public sector's use of data is transparency. Slovenia scores highly in the DGI for the Open by Default dimension and this reflects the effective regulatory and legislative basis discussed earlier in this chapter as well as the country's strengths in OGD. Slovenia has also developed several initiatives to encourage greater visibility of government spending and public sector salaries as well as exploring opportunities to give citizens influence over government decision-making (see Box 5.6).

Box 5.6. Initiatives to encourage transparency in Slovenia

Public spending

ERAR.SI was built by the Commission for the Prevention of Corruption and publishes data it receives from the Authority for Public Payments. The service gives an insight into the spending behaviours of public institutions and state- or municipality- owned enterprises concerning many areas including but not limited to goods and services, wages, social benefits, subsidies, and scholarships. The transparency of the flow of money between the public and private sectors enhances the accountability of public office holders in using public funds more efficiently and effectively, encourages discussion on planned government spending, reduces the risk of poor management and abuse of authority and, in particular, limits systemic corruption, unfair competition and clientelism.

Procurement

Slovenia publishes as open data procurement information including the tender notice, the evaluation criteria, the award notice, the signed contracts and the bidding documents. Overlaid on top of thtis data, the government offers the STATIST platform with a comprehensive view of all data on public procurement contracts awarded from 2013. For a chosen timeframe, users can identify and interrogate information about government spending and its suppliers.

Public salaries

ISPAP (Information system for the transmission and analysis of data on earnings, other payments and the number of employees in the public sector) provides a database of all employees in the public sector. ISPAP is owned and managed by the MPA with the collection of data organised by AJPES. Data is available an individual level relating to a civil servant's employment and includes all types of remuneration. This information is valuable internal information and is complemented by publicly available aggregate data providing ongoing insight into the nature of the public salary system in Slovenia.

Slovenia is home to many businesses working with Artificial Intelligence and Blockchain. These are both areas in which access to high quality data is critical but equally areas where the question of trust is important. Slovenia is an adherent to the *Recommendation of the Council on Artificial Intelligence* (OECD, 2019[118]) that proposes values-based principles for policy makers but has not yet enacted additional initiatives to increase its transparency and trustworthiness. Examples include the *Loi Lemaire* for algorithmic transparency in France and the model of Algorithmic Impact Assessments found in Canada (OECD, 2019[12]). In Slovenia, only three organisations (the Information Commissioner, ZPIZ and the Ministry of the Environment and Spatial Planning) have implemented initiatives to provide transparency and accountability on algorithms used for public decision-making. The most impressive activity was found in ZPIZ, where all software is thoroughly tested by multidisciplinary teams to ensure a user-driven approach to services. Complementing this is an approach to transparency of decision-making that sees detailed calculations shared with each user as well as an audit trail of the algorithm to allow for the decision to be played back should it need to be understood and examined. For example the United Kingdom has the Data Ethics Framework to provide a foundation to the work being done in the field of data science, supported the UK Office for Artificial Intelligence to explore the use of algorithms and other techniques such as machine learning in government transformation and to aid decision making (Government Digital Service, 2020[119]). Similarly New Zealand developed the Principles for Safe and Effective Use of Data and Analytics, which aim at providing good practices, and supporting agencies that use algorithms in decision making (New Zealand Government, 2021[120]).

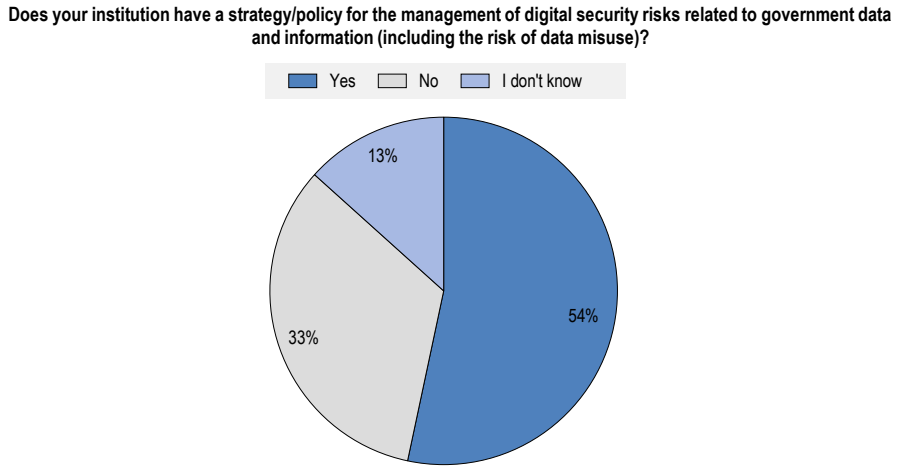
Security

The final element of ensuring the public sector's handling of data can build and protect rather than diminish trust is part of the responsibility governments have to protect their citizens (Welby, 2019[116]). Digital security in Slovenia is based on two pieces of legislation from 2018 – the Decree on Information Security in Public Administration (Republic of Slovenia, 2018[106]) and the Information Security Act (Republic of Slovenia, 2018[21]) – as well as the earlier Personal Data Protection Act (Republic of Slovenia, 2004[22]). This legislation has been successful in becoming a priority for institutions in the public sector as well as reinforced through other agendas; for example, the Slovenian State Cloud (DRO) infrastructure and accompanying strategy contains the objective to securely store and share government and citizen data.

Digital security is a strength of the Slovenian public sector following the development of the country's cybersecurity strategy in 2016 (Republic of Slovenia, 2016[20]). It has evidently become an important priority for the Slovenian public sector, with 24 of the surveyed organisations having a strategy in place (see

Figure 5.14) and a subject matter expert often joining the interviews carried out during the fact-finding mission to Ljubljana. However, it is important to find a balance between mitigating risks and still being able to experiment and explore transformational opportunities. Chapter 3 encourages Slovenia to explore a more multi-disciplinary approach to the configuration of its teams, and it would be a valuable exercise to pair information security professionals with user researchers and service designers to ensure that future services are secure without sacrificing the potential to meet user needs in the best way possible.

Figure 5.14. Institutional strategies for the management of digital security risks



Note: Based on the responses of 45 institutions.
Source: OECD (2020[35]), *Digital Government Survey of Slovenia, Public Sector Organisations Version*, Question 70: "Does your institution have a strategy/policy for the management of digital security risks related to government data and information (including the risk of data misuse)?"

Slovenia has foundations to support interoperability, while adoption is increasing the country's digital identity solution. This allows for exploring how citizens and businesses can be given greater visibility, and control, over how their data is being used. Efforts to facilitate data sharing while ensuring ethical and trustworthy use of data should be at the core of any revisions to the country's data protection regime and should help to find ways to empower citizens by giving greater consent and the ability to monitor data usage. As Slovenia pursues a design and delivery culture to embrace proactive, data-driven services, it will be important to pair the country's robust approach to information security with citizen-led efforts on ethics, consent and transparency. A valuable actor in achieving this will be the Information Commissioner, who plays an active role as the supervisory body for Freedom of Information and GDPR, reflecting a trusted presence in Slovenian society, and who can apply that knowledge to help ensure that data and emerging technologies are used to build trust.

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Digital Government Review of Slovenia

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