11 MAKING THE LEAP FROM E-GOVERNMENT TO DIGITAL GOVERNMENT

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ABSTRACT

To characterise and benchmark the transition from e-government to more comprehensive digital government, the OECD Digital Government Index assesses six dimensions critical for digital competence in the public sector. While OECD countries have made progress on the foundations for digital government, digital tools and data will need to be leveraged better to be transformational in the public sector. Experience of OECD and other governments participating in the index provide lessons for digital government strategies in low- and middle-income countries, including the critical need for sound governance frameworks; focusing on people and their needs; the importance of investing in reliable, reusable and interoperable systems and tools; and fostering digital co-operation on challenges that defy boundaries.

Key messages

■ Digital governments must take a whole-of-government and human-centric approach to redesign public operations and services by adopting digital tools and data to foster more open and participatory government.

■ The highest scoring countries in the OECD Digital Government Index focus on the foundations of a digitally enabled public sector that meets the needs of its constituents, and outlasts any one administration.

■ To avoid widening digital divides that exclude already disadvantaged populations, digital services should co-exist with face-to-face or over-the-phone service delivery for those who need it, and underlying processes should be integrated and coherent.

Early e-government efforts aimed to put analogue processes and services on line, reducing the reliance on paper and in-person procedures (OECD, 2020[1]). While streamlining procedures in individual domains, however, the overall result was often fragmented and government-centred. More recently, full-fledged digital government aims to rethink and re-engineer government processes and public services to respond to users' needs and expectations.

Experience in OECD countries shows that progress towards digital government is built on solid foundations of strategy, governance and investment that foster collaboration between public sector entities. Thinking digitally at the outset, engaging users in the design and delivery of services, ethically governing and using public data, and nurturing digital talent and skills can then contribute to the success of digital government.

Using the OECD Digital Government Policy Framework, this chapter examines a paradigm shift towards digital governments, essential to foster a human-centric, fair and sustainable government transformation, and to progress beyond the idea of digitally enabled services and operations as isolated outputs and secondary effects of individual policies.

Towards human-centred and long-term digital transformation of the public sector

Government shapes the digital transformation of societies and economies via its role as a regulator by developing policies that align interests and influence incentives, and by transforming public governance using digital tools and data to build a more democratic, fair and sustainable public sector. Most governments begin by putting analogue services on line (known as e-government), a process often characterised by government-centric and technology-led approaches. Going beyond e-government, the concept of full-fledged "digital government" means taking strategic decisions about and using digital technologies and data to rethink how policies and public services are designed and implemented to meet the changing needs and expectations of citizens.

The OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014[2]) emphasises that digital government enables the public sector to operate efficiently and effectively in the digital environment, breaking down organisational silos to deliver seamless and user-driven public services, while mitigating the risks of digital technologies for individuals and societies. The Digital Government Policy Framework (DGPF) (OECD, 2020[1]) characterises governments across six dimensions that constitute human-centric and sustainable digital government (Figure 11.1.).

The OECD Digital Government Index (DGI) measures the maturity of digital government across the six dimensions of the DGPF (OECD, 2020[4]).Evidence from the first and pilot edition of the DGI in 2019 (Figure 11.2) shows that OECD countries strengthened their governance systems, their shared and interoperable digital tools, and (to a lesser extent) their strategic governance, sharing and use of public sector data for improved policies
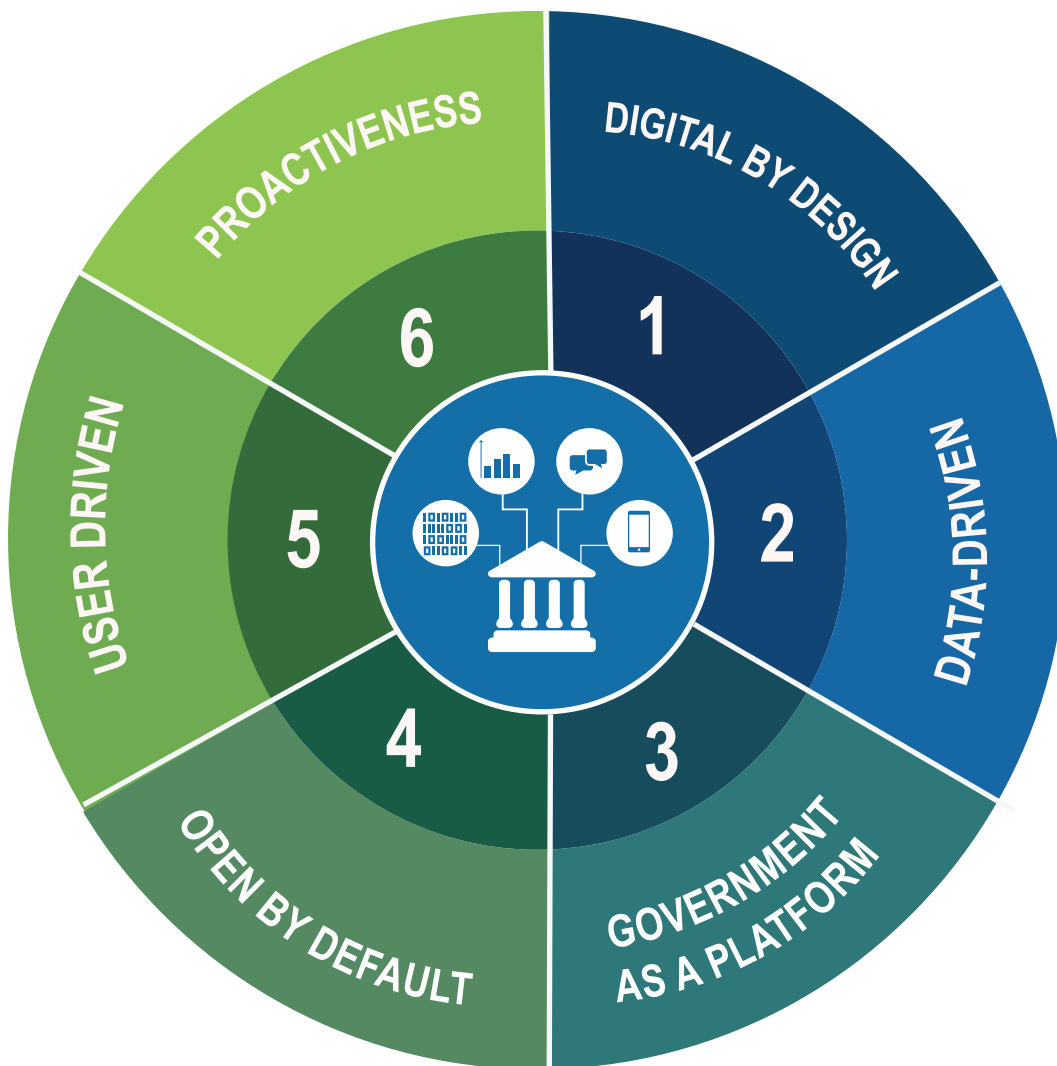
Source: OECD (2020[3]), "The OECD Digital Government Policy Framework: Six dimensions of a digital government", OECD Public Governance Policy Papers, No. 02, OECD Publishing, Paris, https://dx.doi.org/10.1787/f64fed2a-en.

and services (DGPF Dimensions 1-4). But these advances contrast with limited progress in understanding, addressing and anticipating people's needs through digital tools and data (Dimensions 5 and 6). By 2019, most OECD countries still lacked policies and mechanisms to be user-driven and proactive when designing and delivering services for citizens.
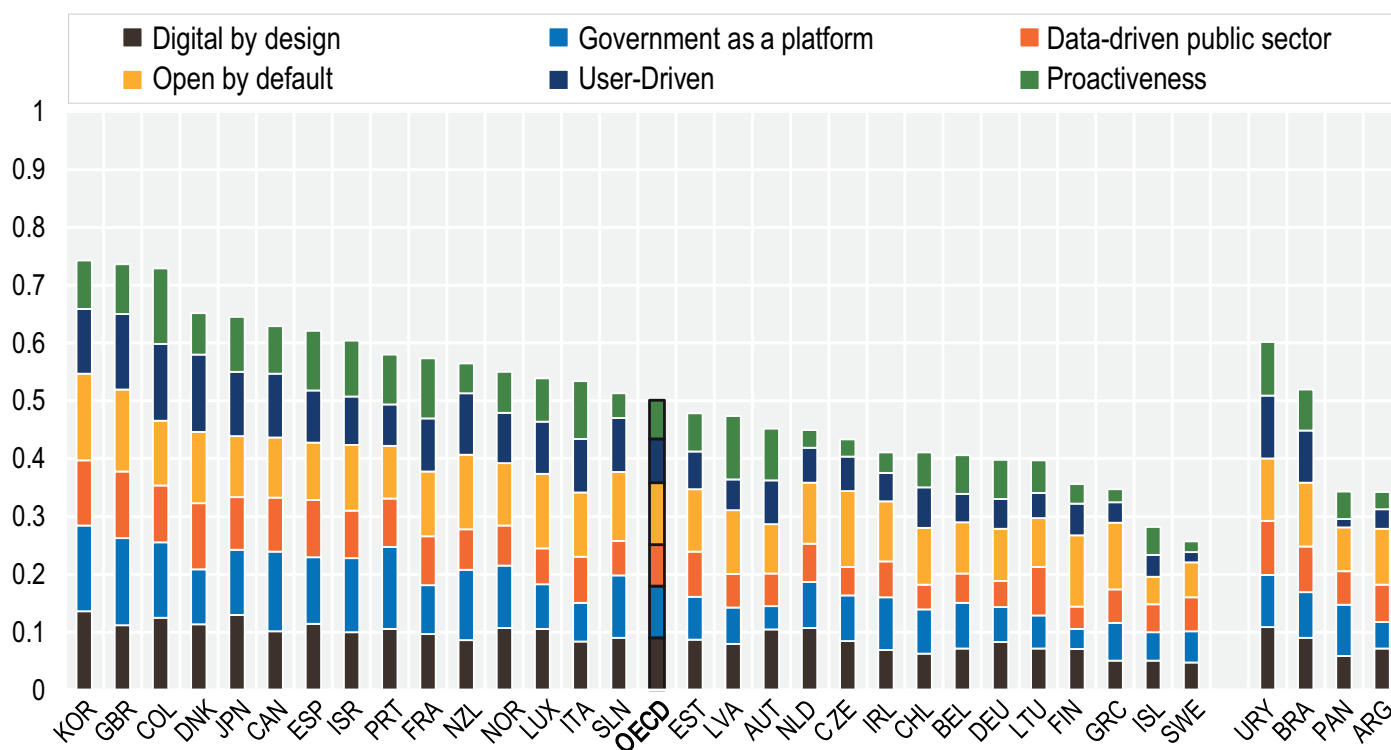
The three highest-ranking countries – Korea, the United Kingdom and Colombia – focused on building the foundations of a digitally enabled public sector that transforms public services and processes to meet the needs of their constituents. Similarly, Brazil

and Uruguay achieved progress thanks to sustained and transformative policy efforts across different administrations. Understanding how progress was made by OECD countries in some DGPF dimensions and the barriers to progress in others could offer lessons for governments at different points in their digital transformation journey.

OECD countries scored well on Dimensions 1-4, contributing to solid foundations for digital government

Digital by design (Dimension 1) leverages digital technologies to rethink

Figure 11.2. OECD Digital Government Index 2019 composite results

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Legend: Digital by design; Government as a platform; Data-driven public sector; Open by default; User-Driven; Proactiveness

Note: Data are not available for Australia, Hungary, Mexico, Poland, the Slovak Republic, Switzerland, Turkey or the United States.

Source: OECD (2020[5]), "Digital Government Index: 2019 results", OECD Public Governance Policy Papers, No. 03, OECD Publishing, Paris, https://dx.doi.org/10.1787/4de9f5bb-en.

and re-engineer public processes, simplify procedures, and create channels of communication and engagement. Embracing change as a core feature of digital government helps navigate the uncertainties in digital technologies and project development. This requires project-management methods that have agility to iterate, learn from, and improve digital and data projects during the development cycle, and thus help mitigate the risks of large and rigid projects. It is also fundamental to engage users to design services driven by people's needs (OECD, 2020[6]).

This encompasses strategies, leadership, co-ordination, institutional models and resources that transform policies into concrete digitally enabled public services. Governments that score well on Dimension 1 tend to score highly on other dimensions too. Investing in digital governance can sustain government efforts across multiple administrations and involve other public

sector organisations in joint action. These benefits help overcome the challenges of less stable political systems to foster policy continuity. One success factor in the six top-performing countries is formal mechanisms to co-ordinate cross-government ICT projects with representation from different policy areas. For example, Korea's E-Government Special Committee, chaired by the Ministry of the Interior and Safety, gathers ministries and private sector experts to define the digital government strategy and action plans since 2001 (Korean Ministry of the Interior and Safety, 2020[7]). In contrast, four of the six bottom-performing countries lack such mechanisms (OECD, 2020[4]). The extent to which digital government strategies translate into policies and digitally enabled services relies also on the financing approach. For example, Australia and Denmark enable digital government via portfolio management for digital investments (Danish Agency for Digitisation, n.d.[8]; Australian Digital

Transformation Agency, n.d.,[9]), and along with Chile, use value-proposition mechanisms to approve and fund digital investment in the public sector (Chilean Budget Directorate, 2021[10]; Australian Digital Transformation Agency, 2015[11]). Along with the financial dimension, project management standards and practices (e.g. agile management methodologies) that promote an agile culture to iterate, learn and incrementally improve digital projects are drivers of success – avoiding large and rigid projects that have higher chances of failing (OECD, 2020[6]).

A digitally competent public sector fosters the skills (technical, socio-emotional, professional and leadership) and environment to develop and retain digital talent (OECD, 2021[12]). By 2019, several countries prioritised dedicated strategies (79%) or concrete initiatives (50%) to develop digital skills, including the use of digital tools, data analytics, project management, service design, user research, and open-government data release and reuse (OECD, 2020[4]). For example, the United Kingdom's Government Digital Service Academy is a comprehensive online and in-person programme that provides training to foster user research, data and digital leadership competencies, among others (OECD, 2021[12]).

Here, it is important to distinguish "digital by design" from "digital by default" (i.e. requiring users to access services on line only), which creates new forms of exclusion through digital divides that affect segments of the population with limited access or ability to use digital technologies (OECD, 2020[1]). When digital by design is implemented successfully, public sector services work seamlessly across multiple on- and offline channels, ensuring that no citizen is left behind due to uneven access or lack of skills necessary to use digital technologies (OECD, 2020[1]).

Data-driven public sector (Dimension 2) values data as a strategic asset and establishes ethical and trust frameworks for governance, access, sharing and reuse

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of data to improve decision making and public services. OECD countries are slowly progressing towards a data-driven public sector. This dimension is the second lowest in the DGI in contrast with the emphasis and political momentum for open government data (OECD, 2020[4]). Evidence from OECD work on government data reveals that developing the governance frameworks, tools and skills to harvest and analyse data is among the barriers to a data-driven public sector. Once overcome, however, they can help to ensure that policy and services are based on evidence rather than solely political considerations (OECD, 2021[13]).

Government as a platform (Dimension 3) deploys guidance, standards and digital tools for teams to focus on user needs in public service design and delivery. Shifting from e-government's siloed and technology-led approaches, digital government invests in shared, standardised and interoperable digital goods and infrastructure. This means investments in open-source and reusable digital tools that equip teams to digitalise services while promoting vertical and horizontal integration across government entities. Similarly, open and interoperable tools remove barriers, allowing the private

sector (including GovTech entrepreneurs) to contribute to the development of integrated systems and services, especially in countries with limited internal public-sector capacity.

Examples include digital public infrastructure (e.g. shared cloud platforms or interoperability systems), and digital public goods such as identity, notification and payment systems. These enable end-to-end service transformation and promote a seamless experience for users when interacting with digital public services. OECD countries have advanced in the development of common building blocks: for example, in 2019, 75% had a single digital identity system in place. Out of this group, 48% of the digital identity systems gave access to at least half of digital services (OECD, 2020[4]).

But as observed among G20 countries, interest in cross-border services now challenges digital identity systems to be interoperable at international levels and allow citizens consent and control of their personal data (OECD/G20, 2021[14]). More co-operation and standards setting is required to enable portable and cross-border identity solutions for trusted digital services, such as by the OECD and G20, the European Commission's e-IDAS, and the GEAL Network's cross-border digital signature in Latin America and the Caribbean.

Open by default (Dimension 4) makes government data and policy-making processes (including algorithms) available to the public (within the limits of existing legislation and in balance with the national and public interest). Open government data can enable more collaborative government through the availability and reuse of machine-readable and free-to-use public data. Participant countries attained the highest DGI score in this dimension. The OECD's Open, Useful and Reusable Data Index (OURdata) shows that countries are mainstreaming open government data, but must strengthen policies and actions to nurture and collaborate with the data ecosystem to deliver public value (OECD, 2020[15]). Leading countries, like Colombia and Korea, to have comprehensive open government data initiatives that foster the availability of public data sets and their reuse within and outside the public sector.

Dimensions 5 and 6, making digital government transformational, are a challenge for all governments

User-driven (Dimension 5) refers to giving a central role to people's needs and convenience in shaping processes, services and policies, and adopting inclusive mechanisms that enable this to happen. These new forms of interaction contribute to public confidence in government and are crucial for strengthening the citizen-state relationship and fostering people's well-being (OECD, 2021[16]; 2020[6]; Welby, 2019[17]).

Understanding, meeting and anticipating user needs requires a bottom-up approach to public services, driven by the needs and expectations of citizens. OECD countries must further invest in user research: 45% of countries noted mechanisms to engage users at the service design stage and 27% at the provision stage. Only a third require ministries or agencies to use digital tools to crowdsource ideas from stakeholders during service development (OECD, 2020[4]). Delving into user needs requires moving away from top-down assumptions; enabling service teams to work alongside citizens, businesses and other stakeholders; and reflecting this in streamlined and seamless services (OECD, 2020[6]). For example, the United Kingdom's Government Digital Service uses a 14-principle service standard and manual for a cohesive and co-ordinated approach to design and delivery, including understanding user needs, problem-solving, omni-channel, simplicity, inclusiveness, agility, openness and reliability (UK Government Digital Service, 2016[18]).

To build citizens' confidence in government, a user-driven public sector can help, but it requires an inclusive approach from the

outset of digital government reforms (OECD, 2021[16]). Several countries use digital tools to promote a more democratic and inclusive public sector. For example, Colombia ("Urna de Cristal"), Denmark ("Høringsportalen") and Portugal ("Simplex") use digital tools to channel citizens' feedback, leading to collaboration and co-creation that reflect public expectations for policies and services. Furthermore, adherence to ethical principles for the use of digital technologies and data is essential for a human-centric digital government. This includes digital identity services that give citizens control and consent over their data (OECD, 2019[19]; OECD/G20, 2021[14]), or ethical principles for access, sharing and use of data in training artificial intelligence models to address bias, discrimination and limited data quality (OECD, 2020[4]; 2021[20]).

Some countries are also taking action to foster digital ethics. For example, France issued the Digital Republic Bill in 2019 to promote equal access and rights in the digital age. Similarly, the United Kingdom's Data Ethics Framework and Canada's Algorithmic Impact Assessment Tool promote integrity and fairness when using digital tools and data in the public sector. But by 2019, only 34% of OECD countries reported requirements to adhere to guidelines and initiatives to apply ethical principles to data-related initiatives (OECD, 2020[4]).

Proactiveness (Dimension 6) refers to anticipating people's needs and responding to them rapidly, avoiding cumbersome data and service delivery processes. For digital government, this means digital working practices, advanced use of data, and suitable deployment of digital public goods and infrastructure. Proactive and user-driven design implies an omnichannel approach to ensure inclusive digital transformation, allowing digital services to co-exist with face-to-face or over-the-phone service delivery for those who need it, and ensuring that underlying processes are digitally integrated and coherent (OECD, 2020[6]). For example,

Portugal's "Citizens Shops and Spots" blend online channels with in-person locations across the country to ensure that public services are available to all Portuguese citizens.

Lessons for building digital government

Harnessing the benefits of digital government challenges countries at all levels of economic and digital development. In addition, as discussed elsewhere in this report, low- and middle-income countries face connectivity and digital infrastructure hurdles, but can still make strategic decisions and investments to sustainably advance the digital transformation of the public sector. Based on lessons from OECD countries' journey from e-government to digital government, developing countries can focus on six aspects that support sustainable and human-centric digital government:

1. **Build governance competencies for sustainable delivery.** Countries can foster leadership and co-ordination mechanisms to legitimise and promote their digital transformation agenda within and outside the public sector. Broad buy-in will help navigate the uncertainty of changing political systems while promoting a coherent, whole-of-government and systemic transformation. Such governance approaches proved effective in OECD countries for making strategic decisions and investments in adopting and using digital technologies.

2. **Focus on people and their needs.** Digital government is about putting people first and driving decisions, investments and processes to meet their needs. This requires continuous and inclusive dialogue with users to capture their expectations, and to reflect them in the design and delivery of services, offered through different but integrated channels. Understanding user needs means distinguishing informational from transactional needs, and addressing each one accordingly. Similarly, it requires fostering talent and training that empower

civil servants to unlock the benefits and address the challenges of digital government.

3. **Invest in reliable, reusable and interoperable digital public good.** Outcomes of e-government reforms show that countries now face siloed and fragmented systems and tools, leading to high integration and alignment costs and constraining a whole-of-government transformation. Developing countries can avoid these challenges by prioritising reusable and interoperable digital tools and infrastructure from the outset. Among OECD countries, 70% have frameworks to promote open-source solutions, which can be effective in achieving interoperability, but require local capacity to adapt, deploy and maintain digital tools, and avoid the vendor lock-in of proprietary solutions. Similarly, countries can prioritise the most impactful and transformative digital tools, such as digital identity systems, that enable citizens to interact with the public sector.

4. **Treat data as a strategic asset and openness as an advantage.** Digitalisation of the public sector creates unprecedented amounts of data that can help govern and transform policies and services. Many benefits of the digital age rely on timely, trustworthy and high-quality data. Developing countries can prioritise efforts towards creating and safeguarding data infrastructures that capture the equal representation of society and contribute to public value while respecting individual interests. Data can also be effective for creating new channels of interaction, transparency, and collaboration with communities and the private sector, such as open government data initiatives.

5. **Assess digital government investments in terms of value.** Limited financial resources mean prioritising the most impactful and scalable digital

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technologies while maintaining legacy systems. Developing countries can develop their capacity to plan, prioritise, fund and monitor digital technologies to ensure that benefits are realised. This includes multi-faceted cost/benefit analysis to define the value proposition of digital government projects; funding for shared digital systems; and adaptable standards and practices to assess the impact, feasibility and scalability of digital transformation projects.

6. **Foster digital co-operation on challenges that defy boundaries** Promoting policy dialogue and collaboration between governments proves effective for addressing the challenges posed by the digital age. There is growing interest in promoting cross-border services and access to and sharing of data, demanding standardised digital public goods such as digital identity. Multilateral co-operation can help identify common bottlenecks, policy levers and interoperable digital tools to address present and future challenges.

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