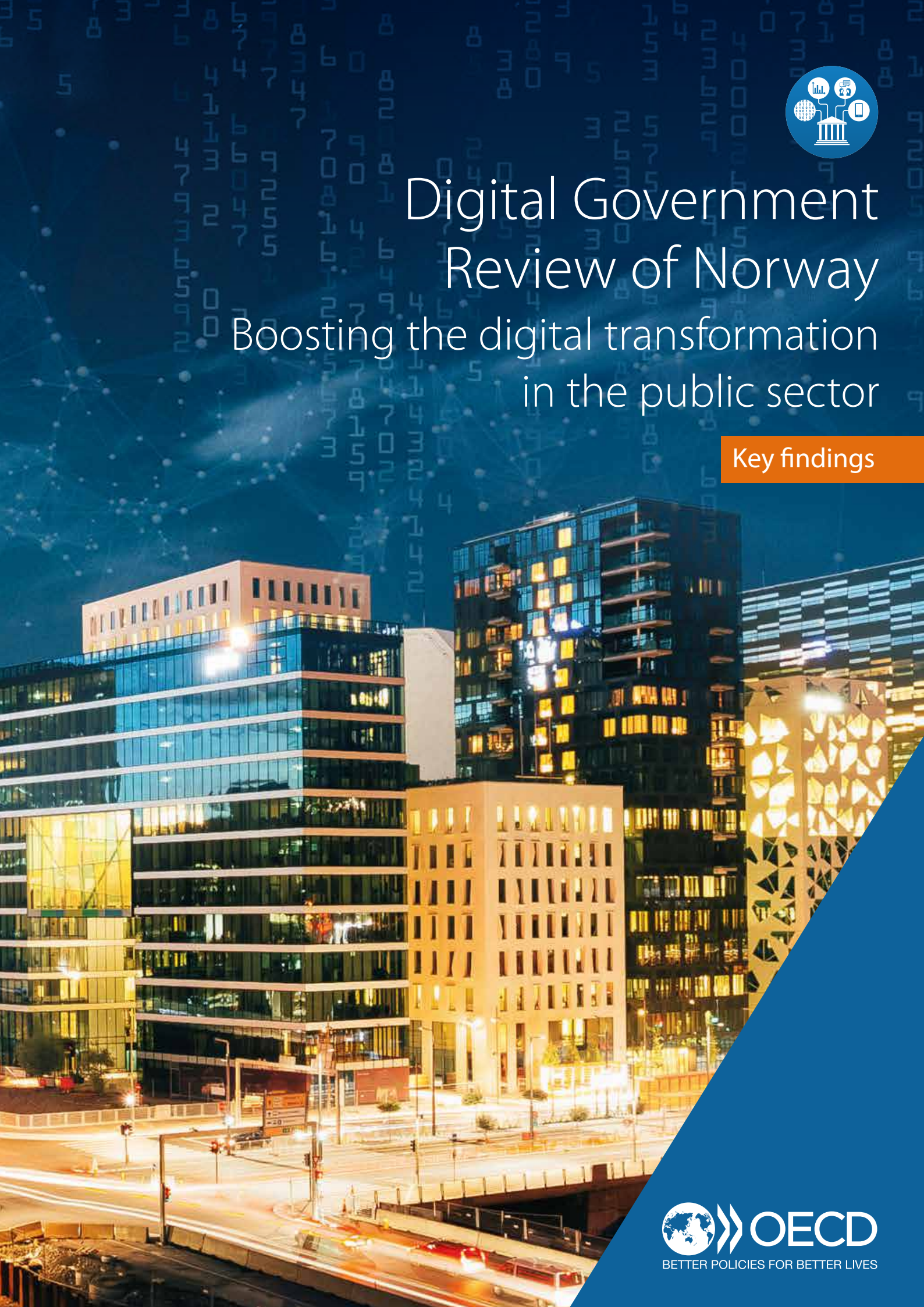
Digital Government Review of Norway

Boosting the digital transformation in the public sector

Key findings



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OECD Digital Government and Open Data Unit
Digital Government Project

1. Background

1.1 ANALYSING THE CONTEXT AND SPOTTING OPPORTUNITIES

The *OECD Digital Government Review of Norway* builds on the experience and knowledge acquired by the Reform of the Public Sector Division of the Directorate for Public Governance and Territorial Development through similar projects conducted over the past 15 years in a number of OECD member and partner countries. The Review also draws upon prior collaborations between the OECD and the Norwegian Government, including the 2005 *OECD E-Government Study of Norway*. This collaboration has been crucial to follow up on the achievements of Norway since 2005, enrich the assessment and results of the 2017 Digital Government Review, and better inform the strategic policy recommendations provided to the central government with the objective of better support the overall and structured digital transformation of the Norwegian public sector.

The Review is being conducted against the *OECD Recommendation on Digital Government Strategies* adopted by the Council in 2014, which contains twelve principles grouped in three main pillars (See Figure 1). The Recommendation applies to all the OECD member countries, as well as to non-OECD members that proactively adhere to it.

The aim of the review is to assess the contribution and progressive integration of Information and Communication Technologies (ICTs) to public sector's administration and decision making process in Norway. The latter aims to improve the outputs, outcomes and impact of undergoing digitalisation programmes, and better plan, inform and implement those to be put in place in the years to come.

The OECD will provide strategic policy advices to the Norwegian Government that should boost digital government improvements based on a solid international cooperation experience. The review allows leveraging the previous efforts and gains on digital government in Norway in order to use them as precursory building blocks for future policies to be developed.

Figure 1. **OECD Recommendation on Digital Government Strategies, 2014**

OPENNESS AND ENGAGEMENT	GOVERNANCE AND COORDINATION	CAPACITIES TO SUPPORT IMPLEMENTATION
1. Openness, transparency and inclusiveness	5. Leadership and political commitment	9. Development of clear business cases
2. Engagement and participation in a multi-actor context in policy making and service delivery	6. Coherent use of digital technology across policy areas	10. Reinforced institutional capacities
3. Creation of a data-driven culture	7. Effective organisational and governance frameworks to coordinate	11. Procurement of digital technologies
4. Protecting privacy and ensuring security	8. Strengthen international cooperation with other governments	12. Legal and regulatory framework

CREATING VALUE THROUGH THE USE OF ICT

Non-OECD members: Colombia, Costa Rica, Egypt, Kazakhstan, Lithuania, Morocco, Romania, Russia

Source: OECD elaboration based on the Recommendation of the Council on Digital Government Strategies, 2014

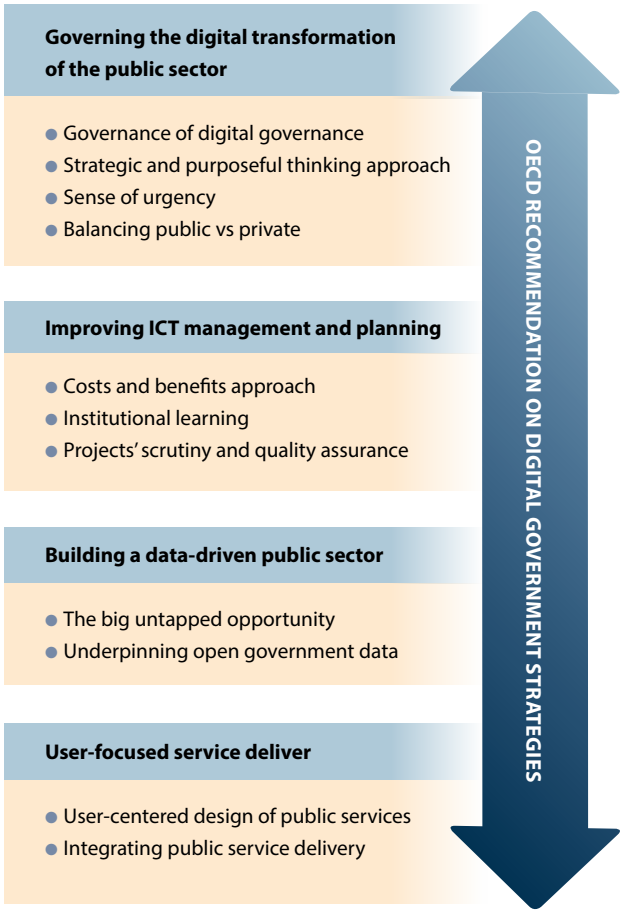


This document presents the key findings of the OECD Secretariat following the peer review mission to Oslo between the 26th and the 30th of September 2016. The peer review mission was conducted with the participation of the following peers:

- Mr John KOOTSTRA, Coordinating Policy Advisor, Ministry of the Interior and Kingdom Relations, Netherlands;
- Mr Tim OCCLESHAW, Government Chief Technology Officer, and Deputy Chief Executive, Department of Internal Affairs, New Zealand.
- Mr Shan RAHULAN, Senior Technical Advisor, Cabinet Office, United Kingdom;

The following framework of analysis (See Figure 2) was applied to assess the state of digital government in Norway, identify policy achievement and gaps, develop key policy findings, and draw policy recommendations.

Figure 2. **Digital Government Review of Norway – framework of analysis**



Source: OECD

The current document should be assumed as a synthesis of the key findings of the peer review team – composed by the OECD Secretariat and the aforementioned peers – that participated in the mission to Oslo in the fall of 2016. The discoveries and findings expressed here are further explored, analysed and explained in the full report *2017 Digital Government Review of Norway*.

1.2 DIGITAL GOVERNMENT IN NORWAY: TREADING THE PATH

Norway is one of the most digitised countries among European countries and, more broadly, within the OECD context. High digital penetration rates in several sectors of the society clearly demonstrate the country's maturity in terms of digital readiness. Since the 1990s, the Norwegian Government has carried-out considerable efforts to optimise the benefits of ICT's strategic adoption and to integrate it in public sector reforms. Some of those efforts have been more visible to citizens (e.g. investments in digital service delivery), while the ones focused on improving processes (e.g. developing the ICT infrastructure for the public sector, deploying diverse key enablers across and among different policy sectors and, wherever possible, levels of government) were less visible to the public though pivotal to advance the digital evolution of the Norwegian government.

Public sector institutions, citizens and businesses have greatly benefited from well-established and long-time government's efforts, commitment and investments in the areas mentioned above resulting in improved *citizen-centred* public service delivery, digital inclusion and business competitiveness. The growing sophistication of highly-digitised public sector agencies – mixed with digitally-skilled and innovation-prone citizens and businesses – has placed Norway as a worldwide reference in these domains.

Specifically on digital government, Norway, together with other Nordic countries, is well placed when compared with its European peers. That position is reflected in several international monitoring instruments, namely the European eGovernment Benchmark[1] and the UN E-Government

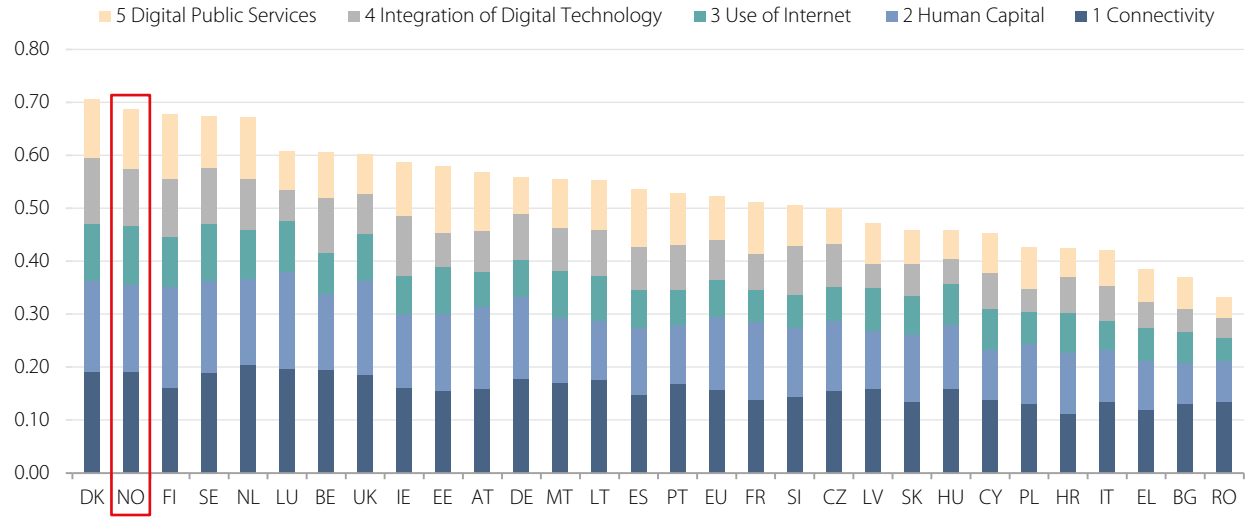
1. In the 2016 edition of the European eGovernment Benchmark, Norway integrates the *Mature Cluster*, side by side with Denmark, Finland, Iceland, Netherlands and Sweden. This group of countries has the *"highest level of penetration and a high level of digitisation, displaying a successful process of innovation, making it possible to exploit the opportunities offered by ICT. The Mature Cluster also achieves quite a high level of satisfaction, showing a market-oriented approach that succeeds in meeting users' needs. Use of eGovernment services and online interaction with governments in these countries might be the most mature in Europe, but are not close to 100%. Similarly, there is still more that can be done to digitise the internal processes and harmonise both between government tiers as well as across borders."* (European Commission, 2016)

Development Index[2]. OECD instruments such the ***OECD OURdata Index*** (which benchmarks open data policies across OECD countries and partners) have also placed Norway among the top-ten OECD leading countries on open government data (See Figure 4).

2. Within the 2016 edition of the *UN E-Government Development Index*, Norway ranks 18th worldwide (United Nations, 2016)

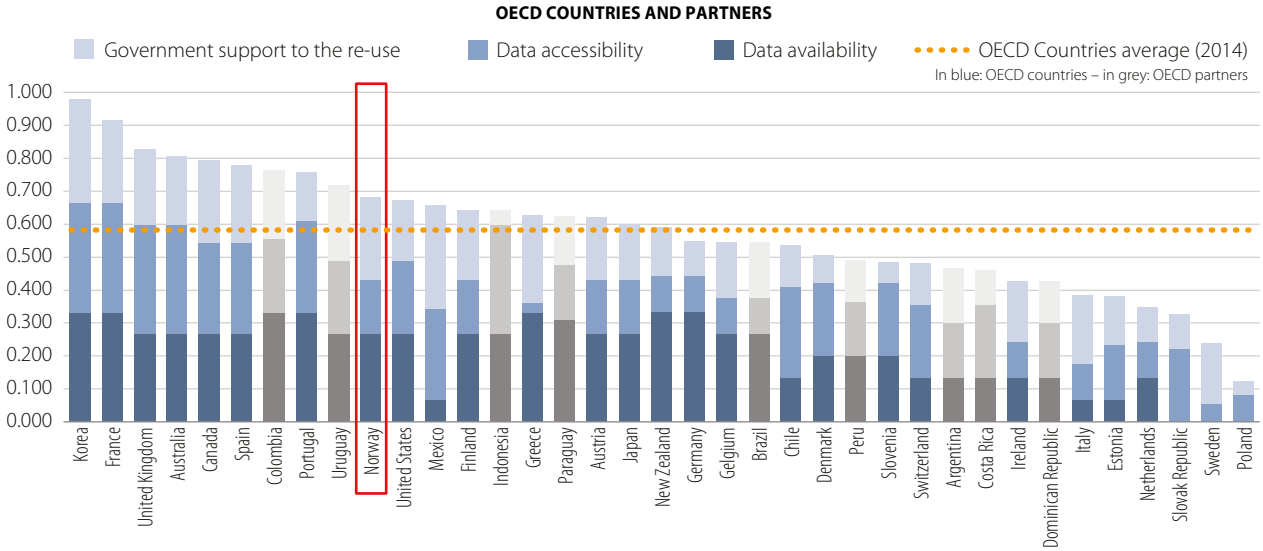
However, the sustainability of this self-earned privileged positioning in international rankings would require not only the continuous development of structural conditions demanding permanent improvements, but also the identification of a sense of urgency within the Norwegian context to maintain the drive for further advancing the overall digital transformation of the public sector. This would be necessary to better respond to the continuously evolving

Figure 3. **EU Digital Economy and Society Index, 2017 – Norway**



Source: EU Digital Economy and Society Index, 2017

Figure 4. **OURdata Index: Open, Useful, Reusable Government Data**



OECD Countries: a) Data for Australia, Austria, Belgium, Canada, Chile, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom and the United States are for 2014; b) Data for the Czech Republic, Hungary, Iceland, Israel and Luxembourg are not available; c) Turkey does not have a one-stop-hop open data portal. Partner countries: a) Data for Indonesia are for 2015; b) Data for Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Paraguay, Peru and Uruguay are for 2016; c) Guatemala, Panama and El Salvador do not have a one-stop-hop open data portal.

Source: 2014 OECD Survey on Open Government Data

needs and expectations of digitally sophisticated and "ready" businesses and citizens, and to strategically tackle future challenges related to welfare financing, social inclusion and economic growth. Building up this sense of urgency would also contribute to strengthen Norway's position vis-à-vis its participation in regional collaboration mechanisms such as the Nordic Council and the European Economic Area.

Digital technologies like social media, mobile and smartphones, cloud computing, artificial intelligence and the internet of things are increasingly – and exponentially – entering the day-to-day life of citizens and businesses in Norway. Their impact on government-citizen relations and business environments is considerable, with the digital economy creating opportunities as well as growing expectations from service users' perspective which require the rapid adaptation of almost every business model – private or public.

The public sector is no exception to the digital transformation that is permeating and spreading across the Norwegian economy and society. In this context, the challenge for the Norwegian government is neither to introduce new digital technologies into public sector activities nor to adopt technology within the framework of traditional public sector business models.

Key and strategic actions should focus on further integrating digital technologies by design into government's modernisation efforts. This would require transforming the working dynamics and processes of public administrations across all policy areas – and at all levels of government – and drive organisational change in close collaboration with citizens, businesses and local governments. As a result, the Norwegian Government would be able to progress towards a public sector capable to deliver innovative services and opportunities digitally by default therefore responding to a society and an economy that are ready for them.

One of the key challenges that even the most digitally-ready and committed governments face today is shifting from *e-government* to *Digital Government* (*See Figure 5*). In order to achieve this transition, Norway (as an early implementer of e-government) should overcome legacy problems and improve the coherence of a digital landscape that is often characterised by the coexistence of digital services and points of access to the public which appear to be littered.

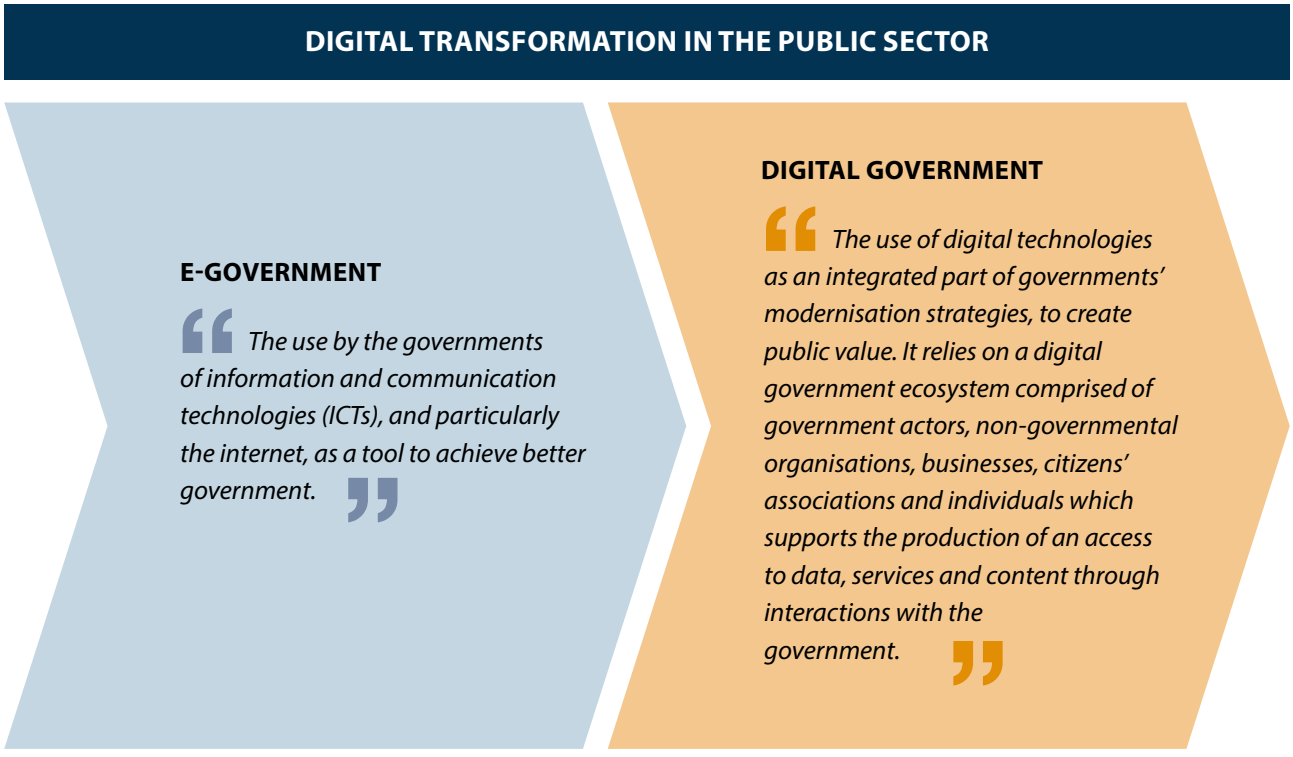
The digital transformation ofthe Norwegian public sector should take place at all organisational levels. Norwegian public sector institutions, politicians, policy makers and public managers – at the central and local level – should capitalise from technological development. To achieve so, these actors would require experimenting with new technologies (e.g. prototyping) while also using citizens' inputs as drivers of organisational learning and knowledge-based institutions. This would require implementing a cross-cutting strategy to fully reap the opportunities of technology with a more efficient and systemic approach. It would also enable a streamlining of the use of the digital platforms already in place. Stakeholders from the public sector should acknowledge themselves as agents of transformational change.

From this perspective, the Norwegian ministries and agencies would benefit from further exploring and exploiting technology to increasingly engage with networked actors (e.g. citizens, institutions and businesses), use inter-operable machines as well as systems and processes (e.g. machine-learning, open source) and inter-connected data sources (e.g. linked data, big data, inter-institutional and cross-border data-sharing and interoperability). As a whole, these strategic actions would contribute to advance the digital transformation of the public sector in the country.

The challenge for Norway is to avoid fragmentation leading to duplications and incoherence. Siloed and decentralised governance models can lead to multiple access-points for government services across public sector agencies (e.g. sectoral or domain-specific on-line platforms, electronic mail boxes, eID tools) that while providing innovative "solutions" that respond to citizens' and businesses' demands create duplications and limit opportunities for synergies and integrated service delivery.

The *Digital Government Review of Norway* will provide strategic policy recommendations to help the Government advance in the transition from e-government to digital government drawing on the availability of precursory building blocks as levers for the systemic digital transformation of the Norwegian public sector.

Figure 5. **Digital Transformation in the Public Sector**



Source: OECD elaboration based on the Recommendation of the Council on Digital Government Strategies, 2014

2. Governing the digital transformation of the public sector

Between, 2005 and 2017, Norway adopted several Information Society and/or Digital Government agendas during (e.g. eNorway plans). While each of these policy documents stressed a different focus, reflected different policy angles based on changing political priorities, and assumed diverse goals to be followed, they also drew upon each other's advancements and challenges. As a result, this inter-connected model has created continuity in the policy design and implementation process which has been useful to place Norway among the top ranking countries on digital government policies.

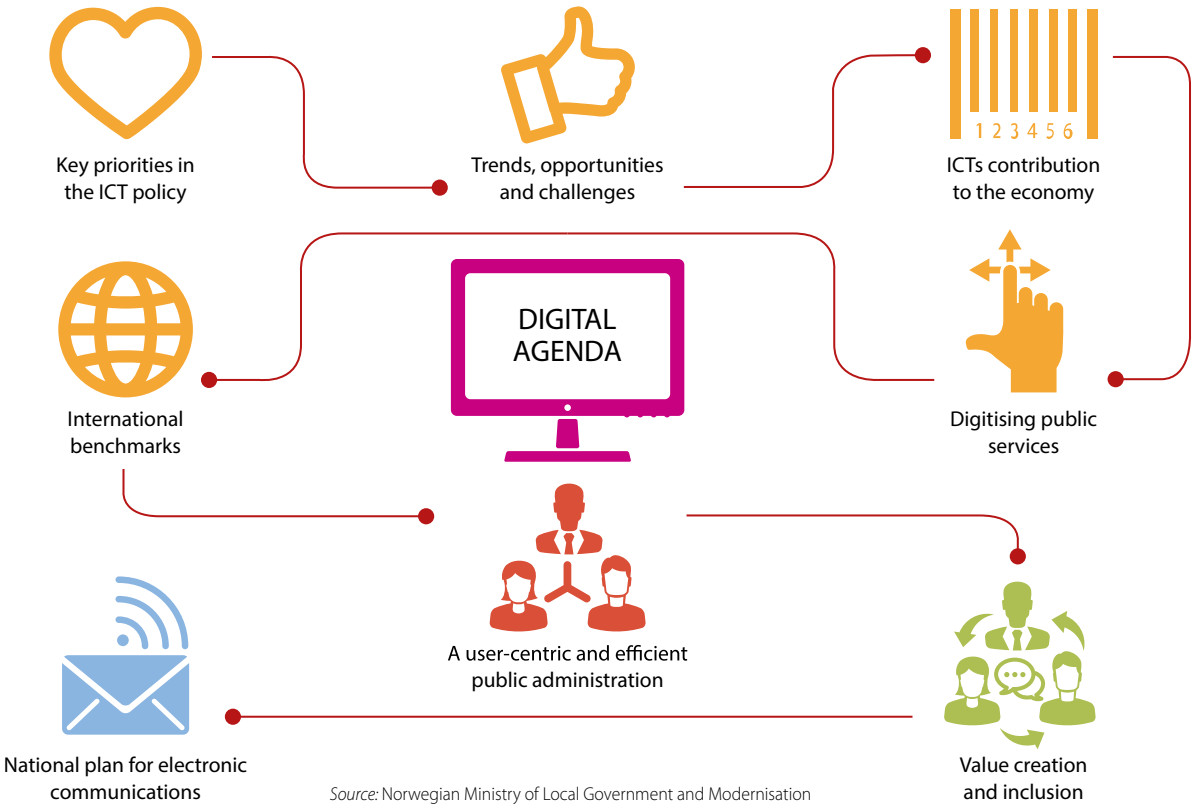
The current Digital Agenda for Norway (2015-2016) (hereinafter, the White Paper) stresses the need of using digital technologies to modernise, simplify and improve public sector processes and external outputs. To make the life of citizens and businesses easier and enhance their productivity, the White Paper identifies the following government priorities (KMD, 2016):

a) ***User-centric focus***: Use technologies to support a user-centric public administration that provides seamless and integrated public services to its constituents, and simplifies day-to-day life.

b) ***ICT as a significant input for innovation and productivity***: Digitise public operations in ways that support the productivity of economic agents, overall digital innovation, and business competitiveness.

c) ***Strengthen digital competence and inclusion***: Continuous improvement of digital competence and inclusiveness throughout all life phases, and across all population groups (e.g. migrants, refugees).

Figure 6. **Digital Agenda for Norway (2015-2016)**



Source: Norwegian Ministry of Local Government and Modernisation

d) ***Effective digitisation of the public sector***: Embed digital technologies in public sector reform efforts to reduce the complexity of the administration and deliver user-friendly digital services. Develop common solutions and foster their use in the central *and* local government and facilitate interoperability with European solutions.

e) ***Sound data protection and information security***: Data protection and security conceived as integrated elements of ICT development and use. Citizens should, as far as possible, have control over their own data. Ensuring ICT security to maintain trust in digital solutions.

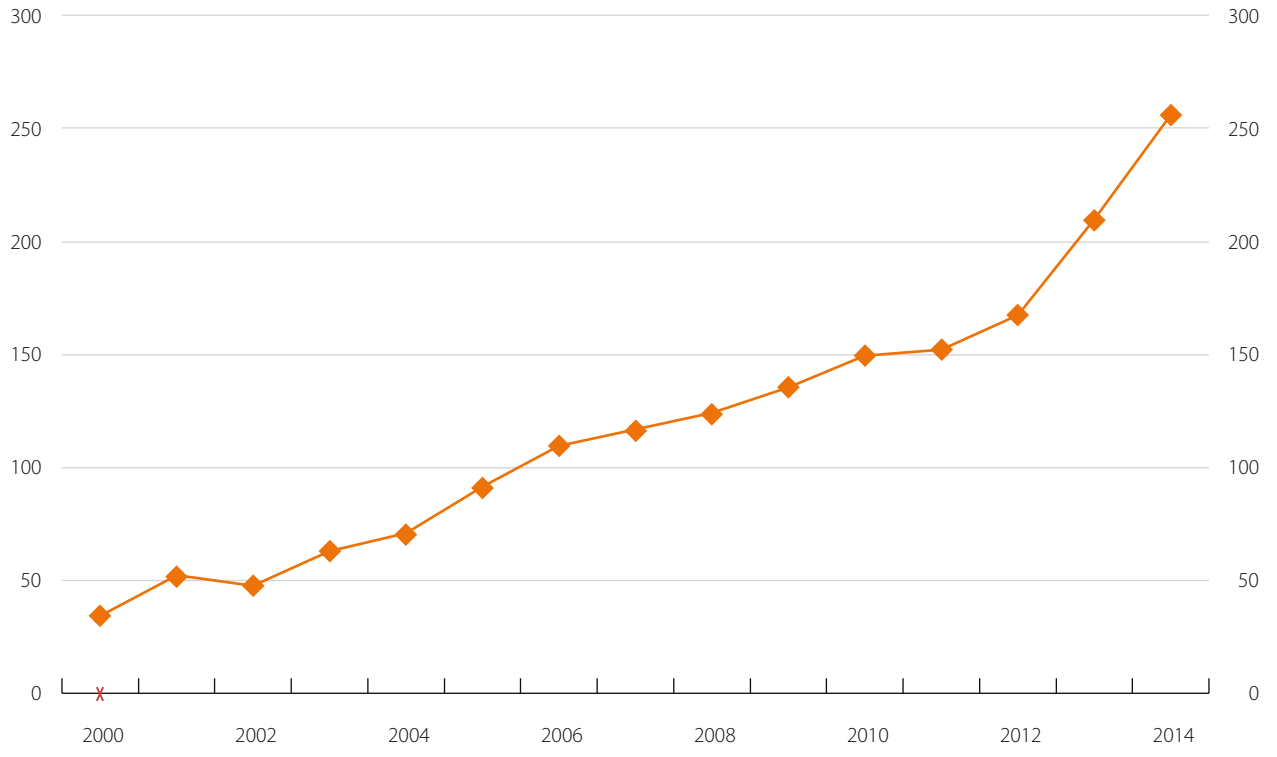
2.1 LEVERAGING A SENSE OF URGENCY

General agreement exists among public, private and social stakeholders on the relevance of the current digital agenda as a driver that can help Norwegian public sector institutions to realise and fully capitalise on digital technologies – namely in terms of policy making and service delivery effectiveness, efficiency, and inclusiveness. Nonetheless, it is also observed the lack of a sense of urgency among public sector officials to capitalise on the ecosystems' digital maturity in order to bring digital transformation a step further.

Severe economic crisis leading to scarcity and instability often function as drivers of change, while administering and managing change in wealthy and healthy environments may require a proactive approach towards the identification of incentives for transformation. The economic crisis that recently affected most of the OECD member countries – and which has created the sense of urgency in many instances – was not deeply felt in Norway. This, as a result of effective "cushion" macroeconomic policies against external shocks, and a considerable oil wealth to manage (OECD, 2016b) (See Figure 7).

In 2008, Norway's public sector was not obliged, for example, to make strong adjustments to limit expenditures and substantively cut costs. Nevertheless, Norway's oil wealth and tax revenues should be managed with a cost-effective approach to ensure the sustainable efficient use of public funds (See Box 1) in light of the decrease of oil prices and revenues since 2014 (OECD, 2016b).

Figure 7. **Norway's Government Pension Fund (Global) as a % of trend mainland GDP**



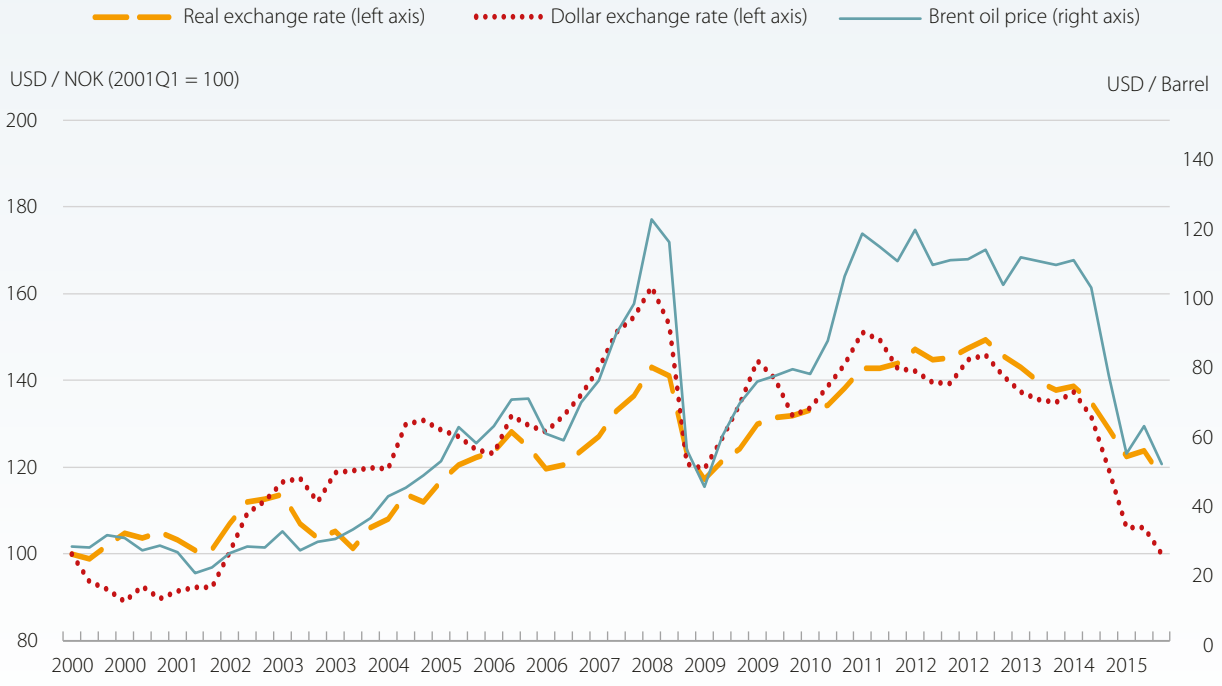
Source: OECD (2016b) *Economic Survey of Norway. Executive Summary.*

Box 1. **Managing future shocks: *The 2016 OECD Economic Survey of Norway* (Highlights)**

- Norway has very high material living standards and scores well on other aspects of wellbeing, thanks to a mix of natural resources wealth, good policy making and inclusive and egalitarian social values, including active efforts to break down barriers to women's careers. However, the substantial oil-price falls since 2014 have been a reminder of Norway's exposure to external risks and consequently the importance of a flexible and competitive mainland economy.
- Norway lost some competitive edge in the past 10-15 years and trend productivity growth has been slowing. Improving the framework conditions to address these issues is key.
- Given the wide range of public services assigned to counties and municipalities in Norway, it is important that sub-national governments are assisted and encouraged to improve efficiency and quality.
- Reforms that enhance skills are also important for economic success and social wellbeing. Further improvements to both compulsory and tertiary education in terms of quality and efficiency are essential.
- Past OECD Economic Surveys have underscored that Norway has room for greater private provision in the supply of public services (for instance through outsourcing) including in areas such as health and education and through larger private contributions to the financing of such services. Systems for increasing private provision need to be carefully designed, for instance to control the quality of services provided.
- Going forward, the structure of Norwegian economic activity will most likely shift away from petroleum-related activities. Domestic oil production is already declining and opportunities for exploration activity (both domestically and globally) will trend downwards as the number of likely locations for new economically viable reserves diminishes.
- There are already long-established non-oil sectors, such as shipping and energy-intensive activities that tap into Norway's substantial sources of hydropower (for instance, aluminium smelting and fertiliser production). However, given the diversity of activities, and risks predicting which sectors will flourish in the future, ensuring supportive conditions and competitive environments for all forms of business activity needs to be a core theme of policy.

Source: Text and data from OECD (2016b) *Economic Survey of Norway. Executive Summary.* Available at: *http://www.oecd.org/eco/surveys/Norway-2016-overview.pdf*

Fluctuations in exchange rates and the price of oil



Source: Text and data from OECD (2016b) Economic Survey of Norway. Executive Summary. Available at: http://www.oecd.org/eco/surveys/Norway-2016-overview.pdf

Similarly, the good level of the existing online public services has not so far created high levels of dissatisfaction among users, as proven by Norway's good placing in international rankings like the European eGovernment Benchmark and the UN E-Government Development Index[3]. These results emanate from the contextual advantages and a solid basis in Norway that do not seem to be leveraged at the moment (e.g. high mobile penetration, good examples of data use in the education sector, integrated service delivery in municipalities).

However, there seems to be a general feeling among stakeholders that the mentioned urgency may come soon. Three key examples illustrate some of the concerns and general feelings shared by several stakeholders during the OECD peer review mission to Oslo (26-30 September, 2016):

a) ***Increasing Societal Expectations*** – Citizens and companies have growing expectations regarding their service experience. Used to top ICT service providers like Google, Facebook, Amazon or Uber, public service users expect the same kind of services simplicity, user friendliness, effectiveness and quality that ensure high levels of trust.

b) ***Vendor dependence –*** The limited efforts in place to coordinate ICT procurement in the public sector are generating some vendor dependency problems (e.g. supply-chain risks) at central and local level.

c) ***Unsustainable performance in international rankings*** – Although Norway remains in good positions in several international rankings, a general concern can be found about the lack of sustainability of the mentioned positions, since other countries are making deeper efforts and more strategic investments to advance in their digital government performance.

At the same time, ***the participation of Norway in Nordic-specific cooperation mechanisms underpins the need of doing better - from the city to the supranational level.***

Regional programmes such as the *2017-2020 Nordic Co-operation Programme for Regional Development and Planning* and the *2014-2017 Nordic Co-operation Programme for Innovation and Business Policy* raise, directly or indirectly, issues related to the digital transformation of the public sector.

3. Norway integrates the *Mature Cluster,* the best placed group of countries in the 2016 edition of the European eGovernment Benchmark. (European Commission, 2016). Norway ranks 18th worldwide in the 2016 edition of the *UN E-Government Development Index* (United Nations, 2016).

Data-driven business innovation and entrepreneurship, digital skills, smart cities, smart governments and the sharing economy are widely addressed as part of a common Nordic policy agenda that is clearly levered by digital evolution. The development of shared building blocks such as cross-national and shared services e.g. eID, and open, sharable and inter-operable government data are the core of this ambitious agenda.

Leveraging synergies between Norway and other Nordic countries in areas such as digital welfare or business innovation calls for the definition and implementation of specific policies and standards, common to all concerned countries involved. This would require the Norwegian Government to move from procedures that – even when ICT-enabled – were often analog in design to the transformation of public sector business models based on the opportunities offered by the digital technologies. By doing so, Norway would be able not only to better respond to the demands and needs of the Norwegian population. It would also contribute to maintain the overall leadership of the Nordic region in terms of digitalisation, and construct a joint leading role for the Nordic countries in relation to the European Single Digital Market.

2.2 IMPROVING THE GOVERNANCE

The *OECD Recommendation on Digital Government Strategies* highlights the need of setting clear institutional roles and responsibilities as one of the basic preconditions for sound governance and to sustainably develop and support the digital transformation of the public sector. Considering the complexity of the task to be undertaken, and the need to establish a governance model that enables and strengthens collaboration and co-ordination and tackle silo-based approaches, roles and responsibilities should be clear to all stakeholders involved in the digital transformation process to secure the adequate leadership .

Besides the clarification of roles and mandate – supported by adequate power distribution, policy instruments and levers – the establishment of appropriate mechanisms for coordination and collaboration are also necessary to ensure multi-stakeholder co-operation and engagement, and the *co-responsibility* of public, private or civil actors. This is also essential to create shared ownership of results which supports joint and integrated efforts.

A sound governance framework – inclusive of institutional set-up, co-ordination mechanisms, soft or hard policy levers – facilitates decision-making processes in consensus-based organisational cultures, the adoption of the agreements within

decentralised decision-making and policy implementation environments, and the coordinated definition, observance and enforcement of guidelines in the digital government domains.

In this line, what emerged during the peer review mission was a general consensus among different stakeholders about the central policy coordination role of the **Ministry of Local Government and Modernisation (KMD)** and the strategic instrumental role of the **Agency for Public Management and eGovernment (Difi)** in boosting the Digital Agenda for Norway. A large agreement about the adequacy, urgency and level of ambition of the policy objectives identified also exists, which reflects a significant level of maturity of the digital government ecosystem.

However, the results of the peer review mission led to the assessment that a governance framework with additional clarity on responsibilities and stronger leadership seems to be required, and this view appears to be shared by many stakeholders, including user representatives and private sector institutions, e.g. suppliers.

For instance, the division of responsibilities between the aforementioned KMD (responsible for coordinating ICT/digitalisation policies and steering Difi, an Agency within the KMD) and the Ministry of Trade, Industry and Fisheries (NFD) (responsible for the Brønnøysund Register Centre which administers amongst other things, the Altinn platform) has led to disperse leadership and overlapping roles between these public bodies in areas of utter relevance for the effective implementation of Norway's digital agenda.

The role of DIFI is also considered fundamental in the Norwegian public sector, but some doubts exist regarding a) its current capacity to provide the right support and leadership at the central and local level, b) the agency's levers to achieve to lead and sustain progresses in the digital transformation of the Norwegian public sector; and, c) its overall capacity to rapidly internalise and foresee the opportunities brought by the fast-paced digital era.

Difi assumes a central role in pointing priorities, tackling the implementation of the digital agenda and developing cross-cutting guidelines and common components (e.g. Public Sector ICT Architecture). However, besides its technical-pedagogical role, Difi lacks of some strategic instruments (e.g. evaluation of ICT projects, ICT funding) to better leverage digital government development in the country.

At the same time, the role and capacities of **SKATE** (the inter-institutional steering and coordination mechanism on digital government chaired by Difi and integrated by 12 public sector organisations) and the **Digitisation Council** (a multi-stakeholder advisory group providing by-request guidance on ICT projects' cost-benefit analysis and risk management) (See Section 3), appears limited to support a coherent policy and an effective collaboration in its implementation. For instance, according to some of the SKATE's members interviewed in the peer review mission, the spaced regularity of its meetings and its consensus-based nature makes it a very useful forum for information sharing, but with limited coordinating powers.

The limitations of the current governance framework can generate negative consequences for the country's capacity and opportunity to take the full benefit of undergoing digital transformation efforts. The governance framework in place is not the most adequate to provide the right leadership required for supporting effective co-ordination, collaboration and shared efforts within the public sector. This governance model also limits the effectiveness of ministries' intentions and actions (including impact of specific projects and investments), since fragmented and unarticulated public initiatives tend to respond in a limited way to citizens and businesses' needs.

A stronger mandate – which could imply and provide for instance clearer and stronger responsibilities and levers – and the increase of resources for DIFI seems to be fundamental to reinforce its coordinating powers at the national level, but also with respect to the 19 counties and 426 municipalities. Stronger coordination seems to be necessary, moving beyond setting policy objectives and priorities to enable more effective steering of joint actions towards the achievement of common results and overarching government's goals.

Although there's not a "one size fits all" model to country-specific Digital Government governance needs, experiences across the OECD provide evidence that the formal identification of a figure equivalent to a Government Chief Information Officer (and/or Chief Digital Transformation Officer) could be considered as one of the possible alternatives. This would also help filling the gap perceived during the peer review mission of a visible "champion" of digital government within the Norwegian public sector.

The scenario above is also relevant with regard to open government data. While DIFI holds key responsibilities within

the framework of open data policies (e.g. developing open data guidelines), Norway lacks a formal Chief Data Officer in charge of providing strategic guidance on open data policies and initiatives across the country. As a result, this may have direct and indirect negative impacts on the achievement of key overarching policy objectives (e.g. spurring business innovation and fostering the digital economy).

2.3 FOSTERING A STRATEGIC SYSTEM THINKING APPROACH

Fostering a system thinking administration should be at the core of the development of digital government, and assumed as a central priority for the Norwegian public sector. This objective should be pursued by identifying public sector agencies with good examples to replicate, aligning the incentives and the organizational objectives, monitoring practices' alignment to overarching goals, and identifying long-term needs and shared solutions for the whole Norwegian administration.

Fostering horizontal knowledge-sharing is neither an unknown nor a new challenge for the Norwegian public sector. The verticality, top-down and decentralised policy implementation approach of the Norwegian public sector has created 'innovation clusters' within leading agencies – often strong and autonomous – and within specific policy sectors (e.g. Health, Tax, Loans). This has led to unbalanced availability of competencies and capacities across and among ministries and agencies.

A strategic horizontal knowledge-sharing in line with central objectives is also needed. While local governments have given the *Norwegian Association of Local and Regional Authorities* (KS) a role in order to better coordinating on issues related to digital government and innovation (similar to the Dutch Local Governments' KING model), vertical co-funding issues and discrepancies in policy priorities seems to exist between the central government, counties and municipalities. As a result, local governments may decide based on their own priorities weakening the capacity of the coordinating body to steer a multi-level and structured approach to better achieve national priorities.

Fostering a system thinking approach would strengthen the Digital Agenda for Norway (2015-2016) as a strategic tool to steer decisions and better align priorities across the whole administration (at the central and local level) with the national political agenda and key policy goals.

Norwegian policy makers could benefit from further understanding that the digital transformation can only be the result of the *interaction and interconnection between public sector institutions, citizens and businesses* – relations that are indeed eased and facilitated by digital technologies. Such an approach should also be considered as a strategic effort to bring "all the voices" in this common effort, enabling a more structured involvement of citizens, companies and general interest groups, and moving beyond the traditional ***citizen-centred*** approach to an evolving ***citizen-driven*** approach.

A pervasive strategic system thinking approach can also accelerate the awareness of the digital journey among the public leaders to overcome the vertical thinking and increase awareness around the networked role of ICT. Together with a stronger, clearer and more coherent governance framework, this approach could ease up the endeavour of ensuring the sustained commitment and support to the digital transformation from top political leadership within the central government. Clear fundamental governance and control mechanisms should accelerate the digital journey, such as:

- Orchestrated development and use of key ***building blocks*** (e.g. eID, eAuthentication, ePayments, eDelivery, eDocuments, eForms, etc);
- Further adoption of ***common standards, architectures and norms***;
- Development of a ***common ICT procurement strategy***, aggregating the demand for stronger negotiating power, enabling savings and promoting the adoption of more interoperable solutions across the central and local level public sector institutions
- Adoption of ***common guidelines to support shared efforts*** regarding digital service delivery, encouraging the development of more citizen-centred platforms, under the leadership of an existent agency adopting this mandate or role *de facto (e.g. Difi)*.
- Strengthened oversight capacities and mandates to ensure systemic, strategic, efficient and accountable investments on ICT projects, and discourage siloed and inefficient expenditures. This is highly relevant particularly in light of potential risks related to economic growth as a result of lower oil revenues and greater need for well-financed and sustainable welfare services.

OECD member countries' experience to strengthen system-thinking approaches to digital government is very diverse. For some countries, the adoption of effective soft approaches is easier thanks to the consensus culture generally in place in their public sector. Other countries tend to use harder approaches as an answer to more vertical or/and competitive cultures. ***Depending on the experience, specific context, policy goals and expectations underway, one of the forthcoming challenges for the Norwegian authorities is to adopt a clear and effective model – inclusive of the relevant tools and mechanisms – that can help foster strategic decisions on policies and investments based on system-thinking dynamics in the public sector while integrating external actors in the process.***

2.4 BALANCING PUBLIC VS PRIVATE

Several OECD member countries identify as a priority the need to find the right balance between public and private efforts in the promotion of the digital transformation. The lack of ICT skills in the public sector determines that ICT deployment and maintenance mostly rely on external service providers. That creates obvious dependences, namely from big consultancy firms, hardware and mostly software providers.

During the OECD peer review mission to Oslo, Norwegian public officials and private sector actors expressed and stressed concerns about the above-mentioned issues. For example, public officials highlighted the current reliance on external consultancies to assess, conceptualise and prototype ICT projects, whereas private sector representatives underlined, as mentioned above, labour mobility from the private to the public sector. While, in theory, this scenario should have contributed to reduce reliance on external support, the current human resource management system in place may lack of a strategic ICT-related component that could contribute to build up and strengthen public sector institutions' capacities to self-capitalise on technological development.

The definition and implementation of an effective HRM ICT-focused strategy would be useful to attract, employ and retain ICT-professionals and champions, and secure the availability of the digital skills required to support the digital transformation. These professionals would bring the right set of skills and competencies to actually build up further ICT project management capacities across the whole public sector, while bringing a fresh forward-looking vision about the opportunities of new technologies to transform public sector activities.

Yet, evidence from the OECD mission also point to public sector's frequent reluctance to contract external service providers, despite the lack of capacities, in areas where private sector advantages are typically clear (e.g. software development, general IT maintenance). This organisational culture may also have a negative impact on the willingness of the Norwegian Government to outsource and partner with private sector organisations to ensure timely access and efficient provision of key government services in areas such as welfare and health.

The sustainable digital transformation of the Norwegian public sector would require further clarification of the areas where the government wants to maintain a leading role, and build specific capacities for such a purpose, and those where the private sector intervention could broadly and actively contribute to the achievement of specific policy goals (e.g. projects' design vs development of technical solutions).

3. Improving ICT management and strategic planning

The strategic planning and efficient management of ICT investments and projects require organisational knowledge, and the availability of specific skills and competencies among public sector officials. Technologies are becoming increasingly complex, with multiple cost structures and dependencies, connected to more and more diverse variables. Business skills and different business models can be mobilized to guarantee constant organisational learning, foster public sector intelligence and support strategic choices on technology for the overall sustainability of the digital transformation process. The use of business case methodologies to better plan and decide on ICT investments in line with political priorities (side by side with the need to ensure the availability of project management skills) has been assumed by OECD member countries as a fundamental factor to nurture and sustain the shift from e-government to Digital Government (OECD, 2014).

A more frequent use of common business case and project management approaches and tools across the administration can also have a positive impact in better mobilising financial resources and better linking and pooling different funding sources, particularly for joint projects (or for projects requiring processes' integration and or/sharing). As a result, this could help to prioritise public investment in critical policy sectors (e.g. health, welfare, and education), spot and lever potential synergies and foster an approach to sharing and integration, which is at the core of the digital transformation.

The limited use of common practices to formulate the value proposition for ICTs investments, and to manage projects across the Norwegian public sector, inevitably leads to additional hurdles to strategically justify investments. This limits also the capacity to point at tangible benefits for the public sector (at the macro, meso and micro levels), for citizens and businesses. The lack of these common practices can lead to unnecessary and duplicated efforts, to untapped opportunities for synergies with negative consequences in terms of efficiency and effectiveness of public ICT investment.

3.1 REINFORCING THE "COST-BENEFIT" APPROACH

The SKATE was conceived as a horizontal coordination forum for the identification of common needs, actions and solutions across the public sector, with a focus on ICT investments' prioritisation and coherence. The Digitalisation Council was created to provide advice to public sector agencies on ICT projects. The involvement of stakeholders from the public (at all levels), private and third sectors has been useful to build a strong basis for further capitalising on common synergies, implementing coordinated efforts, and ensuring better coherence in terms of priorities to be followed, standards to be applied and goals to be accomplished.

The Norwegian Government has put in place the Budget Investment Proposal programme (Statsingsforslag) as an effort to draw upon the provision of additional financial funding (provided by the Ministry of Finance with KMD's strategic advice) to align ICT and digitalisation projects at the Ministerial level to central policy goals. In order to obtain these additional funds, government ministries are required to provide "proof" (by filling out a form) on the measurement processes used to assess projects' costs-benefits and benefits realisation. KMD's advice and the information provided by Ministries are then used as decision making elements by the Ministry of Finance to prioritise specific ICT project proposals.

Building capacities across public sector institutions for the widespread use of business cases and/or value proposition approaches (e.g. cost-benefit analysis) can contribute to strengthening ICT projects' planning and management. Isolated examples of these practices are already available across different policy sectors, with positive reported impact in terms of projects' efficiency, coherence with broader national goals and sustainability. For instance, the Brønnøysund Register, responsible for managing the Altinn platform – that provides important services to citizens and businesses – reported to always use business cases methodologies to plan and prioritize investments. Nevertheless, a consensus seems to exist among stakeholders within the Norwegian public sector, namely among the members of the Digitisation Council, on the need for a more structured and articulated approach in this respect.



The existence of mechanisms capable of guaranteeing projects' scrutiny and quality assurance is fundamental to assure adequate coherence of ICT projects and the necessary articulation among public sector stakeholders. Experiences across OECD member countries are diverse in this respect. While in some countries more centralised models are in place – with a straighter and more institutionalized coordination – other countries have adopted more decentralized models, mostly based on consensual and compromised approaches. In Norway, the second option prevails.

The current *ex-ante* evaluation mechanisms of ICT projects do not seem adequate enough to hold decision makers and implementers fully accountable for ICT investments and achieved results:

- The current threshold (over 750 million NOK) set for the mandatory *ex-ante* project cost-benefit assessments (known as *KS-ordningen* or Quality Assurance Scheme) carried out by the Ministry of Finance (with the support of external consultancy firms) is *only* applicable to major scale ICT projects.
- For those ICT projects between 10 and 750 million NOK, public sector institutions are recommended – yet not obliged – to seek the advice of the Digitisation Council[4] – a multi-stakeholder group chaired by Difi to support agencies on the definition and implementation of cost-efficient ICT projects. Nevertheless, stakeholders highlighted the limitations of this mechanism during the OECD peer review mission as the final recommendations of the Council are neither mandatory nor have a specific impact on the final allocation of resources for ICT projects. On the other hand, since it is not an obligatory mechanism, the number of projects submitted for review is still substantially low.

In order to address the issues above, the Norwegian Government put in place two financial incentives in 2016 to encourage public sector bodies to perform cost-benefit assessments:

- **Difi's co-financing mechanism**[5]: This mechanism aims to reinforce Difi's capacity to better pursue a systemic quality management approach for ICT projects by providing additional budget (up to 50%) for ICT projects with a total cost ranging from 5 to 50 million NOK. Difi's co-funding is limited to a maximum financial contribution of 15 million NOK.
- **2016 KMD's Digitalisation Memorandum**[6]: In the 2016 Digitalisation Memorandum KMD defined a set of actions in key areas (e.g. cloud computing, common components) to be prioritised by public sector organisations with regard to digitalisation. These actions were embedded in the KMD's distribution of the Digitalisation Memorandum which is distributed among ministries and agencies on a yearly basis. The 2016 Memorandum, which superseded a prior memorandum published in 2015[7], also *requires* ministries and agencies to use a best practice project management model for projects with a total cost of more than 10 million NOK in order to ensure the cost-efficiency of ICT projects. In this line, the memorandum *recommends* the use of **Difi's "Project Wizard" project management platform** *www.prosjektveiviseren.no.* The Agency for Financial Management (DFØ)'s guidelines for cost-benefits analysis and benefits realisation have been embedded within the framework of Difi's platform.

Difi's co-financing mechanism and the 2016 Memorandum are evidences of KMD's decision to strengthen its coordination capabilities and the levers at its disposal (e.g. financial and legal instruments) to improve the quality of institutional ICT projects. Nevertheless, Norway, as other OECD countries, is striving to find a balance between leveraging the further adoption of a cross-cutting structured ICT project management approaches and tools, and the need to avoid limiting the agility, rapidity and flexibility required in a context of digital transformation within a highly-decentralised public sector.

Enhancing the more frequent use of financial approval mechanisms to strengthen alignment of projects (e.g. Difi's co-financing model) with national strategic objectives is an opportunity to be fully tapped. The further use of financial policy levers, used in several OECD member countries, can significantly improve the systemic governance of ICT projects, and generate positive impacts regarding projects' coherence and alignment. In addition, the use of Difi's project management platform should be levered to contribute to

4. For more information: *https://www.difi.no/fagomrader-og-tjenester/digitalisering-og-samordning/digitaliseringsradet*

5. For more information: *https://www.difi.no/fagomrader-og-tjenester/digitalisering-og-samordning/medfinansiering-av-digitaliseringsprosjekt*

6. For more information: *https://www.regjeringen.no/no/dokumenter/digitaliseringsrundskrivet/id2522147/*

7. For more information: *https://www.regjeringen.no/no/dokumenter/digitaliseringsrundskrivet/id2462793/#kap3.1*

the implementation inter-institutional standardised and comparable management practices. This would avoid the proliferation of ICT project management models that draw upon different project management frameworks.

As mentioned earlier, establishing a central ICT procurement strategy (comprising the aggregation of demand of ICT products and services e.g. the "government as a single costumer" approach in New Zealand) is also a viable strategy to create a stronger negotiating power of the public sector *vis-à-vis* private provision of ICT goods and services.

Such a procurement strategy should be framed within a broader common, standardised and well-structured ICT supply chain strategy that draws upon strategic policy implementation and comprised additional public management elements. For instance, private-public partnerships, knowledge sharing, public sector innovation, risk management, co-responsibility, and organisational learning. This common supply chain strategy can lead to considerable improvements in terms of efficiency, and it would indeed enable a more coherent approach to ICT procurement that would result into savings, a stronger negotiating power leading to better prices offered by the vendors and an improved alignment to common norms and standards to be followed.

3.2 IMPROVING ORGANISATIONAL LEARNING ON PROJECT MANAGEMENT

The implementation of ICT projects common monitoring mechanisms is a fundamental instrument to improve organisational learning across different policy sectors and levels of government. Consolidated metrics can be useful to better follow outputs and monitor the outcomes and impacts of policies underway. Knowledge-sharing practices can also help to leverage and spread experiences across different areas of the public sector, and fostering instead synergies to the extent possible.

Leveraging and sharing organisational knowledge on success and failure across different sectors and levels of the Government is pivotal to create an enviroment that promotes and enables the digital transformation of the public sector. This requires in fact the capacity of different actors to work together, share and integrate processes ans resources, leveraging on existing assets (e.g. systems, people, data). KMD has given DIFI the task to examine how an ICT project catalog can be created. The objective is to explore how the availability of an ICT project catalog would contribute to build up government's knowledge on on-going digitilisation projects and improve organisational learning on project management. However, while there are several examples of good project management practices, interviews held during the peer review mission pointed at the existence of disarticulated practices, and duplicated efforts at the agency level.

This fragmentation and lack of inter-agency coordination is visible also within the same ministries. While some ministries have tried to implement a more structured approach in order to better control and monitor projects (e.g. Ministry of Justice), this is not a common practice across Norwegian ministries. As a result, the existing heterogeneity in terms of project management and oversight undermines effective coordination and, as a result, leads to missed opportunities of collaboration, efficiencies and synergies.

The above mentioned incoherent and unarticulated environment is able to create virtuous cycles among those institutions that succeed, generating front-running examples and practices of digital government. However, in the cases of those institutions that don't succeed, a negative cycle is easily generated: lack of required skills, limited leadership capacities and few instruments available to generate, capture and maintain knowledge brings serious limitations to the digital transformation of the public sector.

The mentioned KMS's Digitization Memorandum is a sign of the Norwegian Government's commitment to improve the public sector performance and will contribute positively to the necessary shift in this area. The requirement of using Difi's "Project Wizard" platform (www.prosjektveiviseren.no) should create new opportunities for coherence, knowledge sharing and synergies among ICT public sector projects.

4. Building a data-driven public sector

The relevance of digital technologies, which are increasingly becoming an integrated part of citizens' everyday lives and private sector's business models, is reinforced by the exponential progress in terms of production, storage, processing and sharing of data. In the digital era context, data has been assumed as a strategic commodity, and the public sector, while permeable, is struggling to react, leverage, and capitalise from this current trend. In line with it, several OECD member countries are nowadays developing data-driven approaches for the public sector, supporting enhanced data management processes to improve the design, delivery and impact of public services policies. The expectation is to be able to create an environment that will fully enable governments to capture the strategic value of government data as core vector for the digital transformation of their public sectors.

The opportunity faced today by governments around the world is to fully reap the benefits of data (i.e. produced, collected or commissioned by government institutions or non-governmental stakeholders) (Ubaldi, 2013) by developing policies that can boost data openness, interoperability, processing, exchange and re-use across all policy sectors and levels of government, and actors from the *public, private and third* sectors These efforts and commitment can contribute to improve public sector intelligence, allowing more informed policy making and policy implementation processes, as well as more citizen-driven approaches enabled by digital technologies and data.

4.1 THE BIG UNTAPPED OPPORTUNITY

Given the maturity of the digital environment across the Norwegian public sector, a considerable amount of data is already being collected and stored. A significant conscience seems to exist among public sector's stakeholders concerning the potential this reality represents for improving foresight capacities to design better policies and services, to deliver public value and to monitor performance. This may lead to developing better service delivery mechanisms and boosting capacity to forecast and predict trends supporting more proactive initiatives within the public sector.

However, the willingness to develop a data-driven public sector in Norway seems to be mostly more a long-term forward looking desire than a reality at the moment. Interesting examples of data exchange and re-use can already be found (e.g. Altinn portal, My Heath Portal, Statistics Norway), but efforts are mostly running in parallel, reflecting a lack of system-thinking approaches that can reinforce the implementation of the digital transformation agenda.

The development of a data-driven public sector in Norway is an untapped opportunity, considering the high level of digitalisation of the Norwegian society, economy and the public sector. The Norwegian public sector has developed a mature network of basic data registries, with clear definitions about who is responsible for each of the key tasks associated to the government data management, ownership and value chain.

The existence of clear responsibilities in relation to the management of the registries, of which the Brønnøysund Register (entity that manages several public registers) is a good example, provides the perfect backbone and foundation for a solid governance to develop a data-driven public sector. In this sense, there's an urgent need to further exploit the untapped potential of basic public data registries in the country to advance progresses in relation to the further development of a data-driven public sector.

The development of a data-driven public sector in Norway should also rest on the fundamental need to build and maintain citizen's trust. The government should mobilise its best efforts to demonstrate that citizen's data is and will remain securely managed, deeply respecting principles on data protection and personal privacy. Following several OECD member countries' experiences, one of the best ways to improve the public confidence in this area is to establish mechanisms that can allow citizens to access their personal data held by the public sector, and to know at any time who within the public sector is accessing it and for what purpose. At the same time, there is a need to establish co-shared responsibility mechanisms between government and citizens to ensure that citizens also take ownership on and control how they share their data and with whom.

4.2 UNDERPINNING OPEN GOVERNMENT DATA

Evidence from the OECD peer review mission to Oslo showed that open government data (OGD) as a driver of innovation, economic development, competitiveness and citizens' engagement is untapped in Norway. The need to develop an ambitious, structured and coordinated OGD policy is commonly recognized by Norwegian public and private sector stakeholders as a priority that should be better addressed.

Although a national open government data portal has been in place for several years, and numerous good examples of data re-use can be found at the central and local level, an "open by default data policy" is still not being fully assumed as a clear priority by most central level actors.

On the other hand, it is also consensually recognised that an open government data ecosystem still needs to be fully developed to boost data re-use drawing upon a closer collaboration with, and engagement of, the broader community of data re-users (e.g. businesses, entrepreneurs, CSOs).

Some efforts are already in place pushing for a cultural change to foster a more proactive and forward-looking data management and openness in the public sector. Nevertheless, the current and most general commitment still seems to be primarily focused in making data publicly available, sometimes by charging fees.

Further public sector efforts are required to respond to data-demand, promote data re-use and engage data users in order to draw upon OGD as an input to foster business innovation, competitiveness and economic development in Norway.

More than assuming open government data as an isolated or even autonomous policy issue to be addressed on its own, clearer linkages should be established with ongoing efforts related to data governance and management (e.g. data catalogue for the public sector), as part of the overarching goal to advance the digital transformation of the public sector. Further synergies can be found once an *open by default* policy is fully assumed as a ruling principle in the general management of public sector data and information.
Solid synergies should be established between the open government data efforts underway and the priorities and sense of opportunity identified in the development of a data-driven public sector, capable of leveraging big datasets already managed by the government to create and co-create public value.

Open government data should be assumed, at the political and policy-making level, as part of a broader data-driven public sector policy, a building block of the overall digital transformation of the public sector, and a driver of the digital economy in Norway.

5. From user-focused to user-driven service delivery

New technological trends like social media, mobile communication and other technology-enabled approaches, such as Open Government Data, allow more simple and direct interactions between citizens/businesses and the public sector. Used to top experiences in terms of usability and friendliness provided by main ICT providers like Google, Facebook, Amazon or Uber, citizens expect public service delivery to be in line with, and up to the level of, these general trends.

Citizens and companies expect that public services can be designed and delivered in a simple and intuitive way, embedding a user-driven perspective, using life events approaches, re-using information previously provided, and being available in multiplatform alternatives. A proactive public administration is required to serve all users in an efficient, effective, integrated and coherent fashion.

This new digital service delivery culture also raises requisites in terms of security and privacy protection. In a digital world, in which citizens and companies data is probably one of the public sector biggest assets, trust is the key that sustains the government legitimacy to manage and take the full benefit of that precious resource. However, a government that embraces new technologies, to be able to operate up to the level of sophistication of a digital economy and society, will have to adjust its approach to risk management. This will imply shifting from the expectation to be able to fully ensure security and privacy to being ready to negotiate with the users an acceptable trade-off.

5.1 BRINGING USERS' PREFERENCES INTO THE DESIGN OF PUBLIC SERVICES

The development of a user-centred public administration is not a new concept. On the contrary, it is a goal and a mind-set that can be found in the digital strategies of OECD member countries in the last two decades. However, bringing in users' perspective to public sector processes requires new ways of reaching out, engaging and involving them in services' design and decision making (*engagement by design*).

Moving from a user-centred to a user-driven perspective that places users (and their inputs) at the centre of public service delivery strategy is required across the whole public service process (e.g. prototyping, delivery-model selection, design, trial, implementation, feedback and redesign).

Several sectors of the Norwegian government have embarked on advanced digital service delivery approaches aiming to foster user satisfaction. Numerous services available in the Altinn, Norway.no or MyHealth portals are good examples of an ambitious public service delivery commitment. However, there is a significant fragmentation of efforts and models, demonstrating that the Public Administration perspective is prevailing over a citizen perspective – this, letting aside the adoption of the even more advanced user-driven approach. When questioned about the users' involvement in the design of service delivery processes, most public sector stakeholders assumed that it was not a current practice in Norway. The same applies to the use of life event approaches to facilitate the user experience when interacting with public services.

In Norway, it seems that users' inputs are relevant to measure user satisfaction (e.g. surveys) but not to inform or drive the design of public services. This seems to be leading, in general terms, to a government-centric culture and approach where citizens' needs are not widely fulfilled.

A strong consensus was found concerning the need and usefulness to develop, implement and enforce the use of common reference models in terms of online accessibility and usability. Citizens (e.g. including specific population groups such as the elderly, migrants and disabled people) and businesses would benefit from common design and standardised approaches for public websites. This approach could also be assumed as an opportunity to leapfrog some stages in terms of digital service delivery and to spread citizen-driven approaches across the public and private sector. ***This would contribute to the overall and cross-sectorial digital services design policy of the Norwegian Government while decreasing learning curves, increasing significantly the efficiency and effectiveness of services, and improving the overall users' experience.***

5.2 BETTER INTEGRATING DIGITAL SERVICE DELIVERY

Although countless developments related to improving online service delivery processes are common to OECD member countries, segmented or sector-specific approaches still seem to prevail. Public agencies appear to maintain their own portals, with their own navigation schemes, proper visual identity, specific authentication mechanisms and different usability experiences. A fragmented and, sometimes competitive, agency-specific approach is still more frequent than a citizen-centred or citizen-driven approach; and Norway is not an exception.

In Norway, existing sectorial online one-stop shops can already be considered a significant improvement for citizen interaction with the public sector. In addition, the mechanisms and level of sophistication of these platforms are evidence of Norway's long-time policy to improve public service delivery.

However, a strategy for a single 'look and feel' and integrated channels' management should be further pursued in Norway. Citizens' needs and inputs could be further located at the core of public sector priorities for the development of public services strategy beyond the citizen-centred policy discourse, thereby letting users to drive advances in public service delivery. This integrated strategy, assumed by an existing public sector agency with a clear mandate and enough levers to achieve so (e.g. Difi), would be also an outstanding opportunity to explore:

- a coherent use of ***ICT key enablers*** (e.g. eID, ePayment), in order to further improving the relation with service users and allowing substantial gains in terms of efficiency and effectiveness (e.g. **Difi's** *ID-porten* tool was developed to provide citizens with a coordinated/common log in solution to public services[8] and reduce the burden that different eID systems impose on them);

- an ambitious and structured ***mobile digital government approach***, taking the full benefit of one of the highest levels of adoption of smartphones worldwide;

- an ***open and engaging approach in terms of public service design and delivery***, involving different segments of citizens/service users and integrating their inputs and needs right from the start in the design of services.

8. For more information: *https://www.regjeringen.no/no/dokumenter/digitaliseringsr-undskrivet/id2522147/*

Sources

European Commission, European eGovernment Benchmark, 2016 http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=17855

Mickoleit, A. (2014) "Social Media Use by Governments: A Policy Primer to Discuss Trends, Identify Policy Opportunities and Guide Decision Makers", *OECD Working Papers on Public Governance*, No. 26, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/5jxrcmghmk0s-en

Ministry of Local Government and Modernisation (KMD) (2016), *Digital Agenda for Norway in brief: ICT for a simpler everyday life and increased productivity*; English version. Available at: https://www.regjeringen.no/en/dokumenter/digital-agenda-for-norway-in-brief/id2499897/sec1

OECD (2016a), Digital Government in Chile: Strengthening the Institutional and Governance Framework, OECD Digital Government Studies, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264258013-en

OECD (2016b), *OECD Economic Surveys: Norway*, January, 2016. Executive Summary. Available at: http://www.oecd.org/eco/surveys/Norway-2016-overview.pdf

OECD (2016c), Open Government Data Review of Mexico: Data Reuse for Public Sector Impact and Innovation, OECD Digital Government Studies, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264259270-en

OECD (2015), Open Government Data Review of Poland: Unlocking the Value of Government Data, OECD Digital Government Studies, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264241787-en

OECD (2014), Recommendation of the Council on Digital Government Strategies. http://www.oecd.org/gov/digital-government/recommendation-on-digital-government-strategies.htm

OECD. (2005), *OECD e-Government Studies: Norway 2005*. Paris: OECD Publishing. doi:http://dx.doi.org/10.1787/9789264010680-en

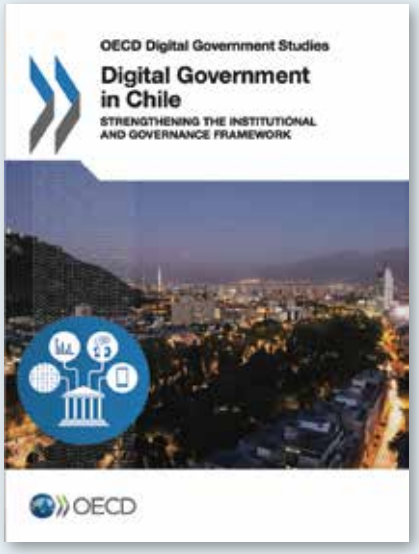
OECD Digital Government Toolkit, 2016 http://www.oecd.org/governance/digital-government/toolkit/

Ubaldi, B. (2013), "Open Government Data: Towards Empirical Analysis of Open Government Data Initiatives", OECD Working Papers on Public Governance, No. 22, OECD Publishing. http://dx.doi.org/10.1787/5k46bj4f03s7-en

United Nations, UN E-Government Development Index, 2016 https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2016-Survey/Executive%20Summary.pdf

Other publications

Digital Government and cross-border services in Estonia and Finland
Chapter in: OECD Public Governance Review of Estonia and Finland: *Fostering strategic capacity across governments and digital services across borders*



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