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**Operating Unit on Policy-Driven  
Electronic Governance**

## **Connected Government Approach for Customer-centric Public Service Delivery:**

Comparing strategic, governance and  
technological aspects in Latvia, Denmark and  
the United Kingdom

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## List of Acronyms

API	Application programming interface
CIO	Chief Information Officer
DESI index	European Union Digital Economy and Society Index
DG CONNECT	Directorate General on Communications Networks, Content and Technology
DIGST	Agency for Digitalization (Denmark)
DK	Denmark
EC	European Commission
EGOV	Electronic Government
eID	Electronic identification
ERDF	European Regional Development Fund
EU	European Union
GDP	Gross Domestic Product
GDS	Government Digital Service Agency (United Kingdom)
ICT	Information and Communications Technology
ISDC	Information Society Development Council
LV	Latvia
n/a	Not applicable
NATO	North Atlantic Treaty Organization
NGO	Non-governmental organization
OECD	Organisation of Economic Cooperation and Development
PKI	Public Key Infrastructure
PSC	Portfolio Steering Committee
TDLN	Technology and Digital Leaders Network
UK	United Kingdom
UN	United Nations
VARAM	Ministry of Environmental Protection and Regional Development (Latvia)
VRAA	State Regional Development Agency (Latvia)



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## Abstract

During the last decade, Electronic Government (EGOV) has been seen as instrumental for a more efficient public sector and more effective public service delivery. Recent trends in government and public service delivery transformation strategies emphasise a move from organisational silos to joined-up, whole-of-government and citizen-centric service delivery and service improvement. The scope of impact implies a move from intra-government focused improvements to the relationships between government, business and citizens. Technology, in this context, acts as a catalyst and enabler for such changes. The transformational maturity of public sector organisations is largely dependent on the strategic focus, horizontal and vertical integration between government departments and across levels of government (i.e. national, regional and local). Other change agents include different partnership models with external agents and improved governance and inter-governmental cooperation. This, in turn, should be backed up by proper technological enablers that provide consistent user experience and process redesign across sectors and is supported by enabling skills and organisational culture, such as customer-centricity, partnership building, collaborative and cross-sectoral customer value creation.

Influenced by different organisational, political and socio-economic factors, strategies in Latvia, Denmark and the United Kingdom (UK) have taken different approaches to digitally-enabled and customer-centric service delivery. This report analyses intergovernmental governance and partnership models of the three countries since 2013. The report identifies existing strategies, practices and technologies in the delivery of core government services, and in progression from silos-based, disjointed government towards a customer-centric, whole-of-government approach in public sector service production and delivery.

The analysis finds that the whole-of-government approach for public service delivery has been strategically recognised in all three analysed countries, but that countries have different structural approaches when addressing technology-enabled public service delivery and whole-of-government concepts. Research shows that in order to ensure holistic and consistent digital transformation as illustrated by the example of Denmark and the UK, it is essential to compile sufficient governance maturity and organisational capacity, combining strategic and operational competencies. It is also critical to grant a broad mandate to coordinate, guide, set standards and supervise across government sectors and government levels. Government-wide design standards, process redesign practices, centralised user insight analysis, and cross-sectoral process ownership are other common elements necessary to whole-of-government approaches. It is also evident that when supply-side digitalisation activities and enablers are supported by opt-out rather than opt-in strategies on the user's side, more dynamic shifts in channel choice are evident, and a higher eServices user base is reached, as it is demonstrated in the Latvian and Danish examples.

The analysis concludes that current methods and practices for performance monitoring and impact evaluation are generally designed for agency- and service-based performance assessment. This means that government cross-agency methods and practices must be elaborated to support further and facilitate a whole-of-government approach. All countries would benefit from closer cooperation between agencies and across administrative levels, but also with private sector stakeholders. This applies to strategy development as well as operational joined-up service delivery partnerships.

**Keywords:** whole-of-government; digitalisation; e-Governance; customer-centric; public service delivery; Latvia; United Kingdom; Denmark



## 1. Introduction

Digital technologies enable governments to function more efficiently, to become more effective and to provide more customer-oriented public services. However, the increased pace of technology evolution, government budgetary constraints and changing demographics are posing both new challenges and opportunities for governments and service production and delivery. Changing citizen demand and expectations for more customer oriented, personalized and value-added government services adds to the challenges. The use of information and communications technology (ICT) and e-Government strategies by the governments are now reaching new levels of maturity (Digital Government), where technologies and user preferences are integrated in the production and delivery of service, and is often part of broader public sector reforms drive – whereby technology becomes an integral part of a government wider strategies to create public value.

Transformative digital government trends and the new role of governments are addressed in numerous recommendation and guidelines released by the United Nations (UN) (United Nations, 2012), the Organisation of Economic Cooperation and Development (OECD) (OECD, 2014), the European Commission (EC) (European Commission, 2013), as well as private advisory and technology companies (PwC, 2007). The OECD's comparative study on Digital Government Strategies for Transforming Public Services in the Welfare Areas emphasises that successful digital government initiatives are characterised by a shift in focus: That is, from the efficiency and productivity of public services to one of governance, openness, transparency and engagement of private and non-governmental actors in collaborative co-creation of public value. In terms of public service delivery, this translates into data sharing, the once-only principle, joined-up administrations, interoperability standards, common ICT platforms and the development of innovative services tailored to individual needs or designed to reduce administrative burdens or services and confirmed by multiple other authors (Arendsen & van Engers, 2004; Lopes, Soares, Nielsen, & Tavares, 2017; Meyerhoff Nielsen & Krimmer, 2015; Nielsen, Carvalho, Veiga, & Barbosa, 2017) (OECD, 2014). In its recommendations on national digital government strategies, the OECD emphasises that the challenge is not merely the introduction of technologies into public administration, but rather the integration and use of certain technologies in public sector modernisation efforts. Major challenges highlighted include organisational fragmentation and limited readiness to create a broad political commitment and ownership for the integration of digital government agenda into overall public sector reform strategies (OECD, 2014). The OECD study also recognises that governments are failing to make the transition to new digital environments can have important consequences, including poor service delivery, the underperformance of spending, privacy and security breaches, and loss of citizens trust (OECD, 2014) (OECD - Organisation for Economic Cooperation and Development, 2014).

The "Vision for Public Services", drafted by the Public Services Unit of the European Commission's Directorate General on Communications Networks, Content and Technology (DG CONNECT), it is stressed that the future of government is decreasingly likely due to the auspice of governments alone: instead, the report highlights that, in the future, governments will be connected, networked and fully joined-up and will interact with each other as well as with end-users, private actors and civil society. This is likely to happen in an open and participative governance structure, where both administrations and third parties can collaborate and share responsibilities in producing and providing services according to the accepted principles of subsidiarity. As acknowledged by practitioners, it is central to the design of a customer-centric service delivery model the realisation that service delivery can be organised as a non-core government



function, and that it can be handled equally well by third parties - as long as there are an appropriate capacity and interest in the market and/or voluntary sector to do so (PwC, 2007). To achieve this, breaking down governmental silos and moving towards a "whole-of-government" approach is needed (European Commission, 2013). Understanding customer needs is essential and requires an integrated approach to service production and delivery. Connecting government silos by networking them rather than abandoning them, building institutional capacity, creating collaborative partnerships and innovating are key enablers for a successful transformation of government, especially in the short and medium term.

The literature on the implementation of effective public service delivery and whole-of-government approach recognises that it cannot be achieved by technology alone, neither can it be achieved by imposing a specific policy and regulatory framework without addressing performance in individual organizations are wider and systematically transformation organizational structures, processes, partnership models, cultural aspects, etc. Research on the whole-of-government approach similarly sees the concept as broader than technology alone, suggesting that it can be analysed on different levels, including policymaking and implementation; and that the concept does not form a coherent set of ideas and tools, but can best be seen as an umbrella term regrouping a set of responses to the issue of increased fragmentation of public sector and public services, and expressing an intention to enhance coordination (Brynjolfsson & Hitt, 2000; Chandler & Emanuels, 2002; Cullen, 2010; Farias et al., 2017; Klievink & Janssen, 2009; Roseth, Reyes, & Santiso, 2017; Scholl, 2005; West, 2004) (Christensen and Lægreid, 2006).

To analyse different approaches and practices, countries have taken towards more citizen-centric and coordinated public service delivery. Thus, the research question of this analysis reads: *How can the public sector facilitate the development of the next generation, whole-of-government approach, enabling personalised and proactive public services?* To take into account the current developments in digital governance and key enabling aspects therein, the main focus areas of the report are as follows:

- Governance and intergovernmental models (decision making, policy/strategy, compliance, breaking down silos, regulation);
- Technology choices and opportunities (channel choices/mix, artificial intelligence (AI), once-only);
- Design approach (co-creation, agility, development/maintenance/updates, and feedback).



## 2. Methodology

The methodology used to address the research question of this report is a classical exploratory, qualitative, case study methodology framework. The method enables the with-in case analysis as well as a cross-case comparison (Rohlfing, 2012; Yin, 2013).

To facilitate the cross-case comparison, a context, content, process model (CCP model) (Symons, 1991) is adapted for ICT use in the public sector (Devos, Buelens, & Bouckenooghe, 2007; Krimmer, 2012) and for online service delivery (Meyerhoff Nielsen, 2017b, 2017a). The conceptual model in use consists of four macro-dimensions: background indicators; national governance and cooperation model; national approach to e-Government; and effect measurements and preconditions. Each dimension explains a key area that influences processes, choices and outcomes in relation to electronic services (eServices) supply, take-up and customer satisfaction. Using the framework for the with-in case analysis to identify the governance mechanisms in play will allow the author to make a cross-case comparison to determine the potential relationship between a strong cooperative governance model, technological enablers, enabling services design practices, citizens use of the online service delivery channel, reduction of administrative burden and citizen satisfaction with government services.

The case selection is based on the differences between the countries analysed (Collier & Mahoney, 1996; Eisenhardt, 1989; Rohlfing, 2012). Denmark and the UK are rated among the most advanced digital economies. According to the European Union Digital Economy and Society Index (European Commission, 2018c, European Commission, 2018b), Denmark is ranked in 1<sup>st</sup> place, the UK in 7<sup>th</sup> and Latvia in 20<sup>th</sup>. In the Digital Public Services dimension, Denmark is ranked in 3<sup>rd</sup>, Latvia in 9<sup>th</sup> and the UK in 14<sup>th</sup> in 2018 (European Commission, 2018c). The three countries have taken different structural approaches and paths when addressing technology-enabled public service delivery and whole-of-government.

The case studies are developed based on desk research analysis. The primary sources include relevant policy documents, national and international statistical sources and benchmarking results and officially published government information. The research focused on the period since 2013 and took place between May and July 2018.



### 3. National and socio-economic context

Latvia, Denmark and the UK are countries with different socio-economic contexts. As a result, population size, income levels, administrative systems and complexity varies. Latvia is a small country with a moderate level of urbanisation (Central Intelligence Agency, 2018).<sup>1</sup> The largest concentration of people is found in and around the capital city of Riga (32% of the population) (The Latvian Institute, 2011). Small urban agglomerations are scattered throughout the country. Latvia is a member of the EU and North Atlantic Treaty Organization (NATO), joined the Eurozone in 2014 and OECD in 2016. In terms of Gross Domestic Product (GDP), Latvia is a high-income country and is currently experiencing relatively rapidly growing economy. For historical reasons, Latvia has a large Russian-speaking minority. Like most other EU and OECD countries, the population is ageing due to low birthday rates but also due to emigration (OECD, 2018). Denmark is a relatively small country, but with considerably higher population density and urbanization level (ibid). Denmark is a high-income country with a high matching standard of living and more consistent GDP growth rate, especially when compared to Latvia. By comparison, the UK is a large country with a substantially bigger population and higher population density, particularly in England and the southern parts of Scotland and Wales. The urbanization levels are higher than those of Latvia but lower than those found in Denmark. Income levels and economic growth rates are comparable to Denmark. In contrast to Latvia, both Denmark and the UK are, in general, monolingual. The national and socio-economic contexts of Latvia, Denmark and the UK are summarized in Table 1 (next page).

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<sup>1</sup> Latvia ranks 77 out of 192 in the 2018 Edition of the CIA's World Factbook Urbanisation Ranking, with an Urbanisation level close to 68% of its total population.



Table 1: socio-economic data for 2018 (Central Intelligence Agency 2018, Eurostat 2018, OECD 2018).

	LATVIA	DENMARK	UNITED KINGDOM
Population	1 934 379	5 781 190	66 238 007
Territory (km <sup>2</sup> )	64 589	43 094	243 610
Population density (2016) <sup>2</sup>	31.0	136.4	270.5
Ethnic groups	Latvian 62%, Russian 25.4%, Belarusian 3.3%, Ukrainian 2.2%, Polish 2.1%, Lithuanian 1.2%, other 3.8%	Danish (includes Greenlandic who are predominantly Inuit and Faroese) 86.7%, Turkish 1.1%, other 12.2% (largest groups are Polish, Syrian, German, Iraqi, and Romanian)	white 87.2%, black/African/Caribbean/black British 3%, Asian/Asian British: Indian 2.3%, Asian/Asian British: Pakistani 1.9%, mixed 2%, other 3.7% (2011 est)
Life expectancy / median age	74.7 / 43.6	79.5 / 42.2	80.8 / 40.5
Urbanisation (%)	68.1	87.9	83.4
GDP (PPP) (US \$,2017)	53.9 billion	296.9 billion	2.86 trillion
GDP per capita (PPP) (US\$,2017)	27.813	51.495	43.402
GDP growth rate (%) (2018 est.)	4.1	1.7	1.4
Government consumption (%)	17.8	25.5	19.0
Eurostat: Final consumption expenditure of general gov, 2017	17.9	25	18.2
Unemployment (%)	8.7	5.7	4.4
Inflation (%) (HICP 2017)	2.9	1.1	2.7
Confidence in Government (%) <sup>3</sup>	32	47	41
Trust In government, 2018 (Eurobarometer)	28	47	31

<sup>2</sup> EUROSTAT 2018b. Population Density (tps00003). Luxembourg: European Commission.

<sup>3</sup> OECD 2017a. Government at a Glance 2017. Paris: OECD Publishing.



## 4. Digital Government and Public Service Delivery strategic focuses

The development of digital government largely depends on historical policies, strategic decisions and orientations. As the analysis main focus is on the digital transformation of a citizen-centric and whole-of-government approach, the historical review focuses on a cross-country comparison of the three countries respective governance models.

### 4.1 e-Government in Latvia since 1991

e-Government in Latvia has gone through several development phases: from the late 1990s until 2005, the main focus was on intra-agency digitalisation, and on the establishment of basic government ICT infrastructure and regulations.

The 2006-2013 strategy shifted the focus to one of broadband infrastructure provision, especially in remote areas; and on the implementation of e-Government and e-Services foundation, such as key registries, data exchange platforms, shared platforms for e-Service development (including the national one-stop portal), digital authentication and online payments. During this period, the focus was on the digitalisation of government services. To facilitate the process, all European Regional Development Fund (ERDF)-funded e-Government projects had to include digitalisation of at least one transactional government service, leading to the mass digitalisation of over 270 transactional services between 2006 and 2013. Despite some coordination on a strategic level, development remained fragmented and lacked coordination between sectors: as a result, although shared platforms were launched, their use by sectoral agencies was insufficient, and e-Service take-up by citizens did not increase.

The 2014-2020 strategy saw a more coordinated implementation: in 2014, the Government ICT conceptual architecture model was adopted, and a Chief Information Architect was nominated, establishing a federated ICT governance model and centralised e-Government projects coordination mechanisms. In 2015, a programme of the State and Regional Unified Customer Service Centres (Unified Customer Centres) was established, whereby municipal face-to-face customer service centres integrated provisions of major central government services and provided assistance for citizens to make use of government eServices.<sup>4</sup> In March 2017, a Digital Post component for government-to-citizen communication (national and municipal) was introduced; as from January 2019, this component will become mandatory for all central and local government institutions to use as the primary channel of communication with citizens and businesses, as well as between institutions. Where service delivery is concerned, Latvia has had a strategic focus on the digitisation of service production and delivery for over a decade. Similarly, decentralised processes have been established, in such contexts as priorities and responsibilities for implementation approach, quality assurance and customer needs analysis. However, there has been no strict national policy framing the transition to digital-only government services. In 2017, a regulation was put in place for both central and local government services. The regulation establishes a minimum baseline for online service quality, user

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<sup>4</sup> In June 2018 there were 72 local and 6 regional importance Unified Customer Centres established in Latvia (VALSTS REĢIONĀLĀS ATTĪSTĪBAS AĢENTŪRA. 2018. *Vienotie klientu apkalpošanas centri* [Online]. Available: <https://www.latvija.lv/lv/pakalpojumucentri> [Accessed 21/11/2018 2018].)



engagement, performance measurement requirements and awareness raising. In the same year, an open-data strategy was put in place, including the launch of a centralised open data portal ([data.gov.lv](http://data.gov.lv)) and the generalisation of government data opening. Historical developments, including core phases of e-Government in Latvia, are shown in Table 2.

**Table 2: historic development stages of e-Government in Latvia.**

PERIOD	MAIN E-GOVERNMENT DEVELOPMENT FOCUSES AND HIGHLIGHTS
1991 - 2005	<p>The building of base registers, agencies internal digitalisation, base government ICT regulation and first e-Government plan. Examples:</p> <ul style="list-style-type: none"> <li>• e-Government program;</li> <li>• Regulation on State Information Systems;</li> <li>• government and citizen electronic communication (including the once-only principle);</li> <li>• digital signature conception (European Commission, 2015b).</li> </ul>
<p>2006 - 2013</p> <p>Latvian e-Government Development Programme (2005 - 2009)</p> <p>Guidelines for the development of Information Society (2006 - 2013)</p> <p>Electronic Government Development Plan (2011 - 2013)</p>	<p>Development of e-Services ecosystems (shared platforms), mandatory government service digitalisation, digital skills of citizens and entrepreneurs. Examples:</p> <ul style="list-style-type: none"> <li>• State Information System Integrator;</li> <li>• citizens portal (<a href="http://Latvija.lv">Latvija.lv</a>);</li> <li>• Qualified Digital Signature;</li> <li>• More than 300 government services available online;</li> <li>• Bank authentication and payment systems become available for government services;</li> <li>• Citizen online initiative platform (<a href="http://manabalss.lv">manabalss.lv</a>) legalised;</li> <li>• Citizen eID cards implemented;</li> <li>• ICT governance model adopted in 2013.</li> </ul>
<p>2014 - 2018</p> <p>Guidelines for the development of Information Society (2014-2020)</p>	<p>Governance, government ICT architecture, data-based innovations and partnerships. Examples:</p> <ul style="list-style-type: none"> <li>• Government ICT conceptual architecture model (Latvijas Republikas Ministru kabineta, 2014);</li> <li>• Chief Information Architect;</li> <li>• Network of State and Regional Unified Customer Service Centres;</li> <li>• Centralised benchmarking and awareness building initiatives;</li> <li>• Horizontal regulation on public service delivery;</li> <li>• Quality assurance and performance measurement;</li> <li>• Open data portal;</li> <li>• The release of agencies data;</li> <li>• Multi-stakeholder initiative on Data-Driven Nation.</li> </ul>

## 4.2 e-Government in Denmark since 1991

Over time, Denmark has undergone a transition to digital administration, communication and services, currently exploiting the digital channel as a major channel for public service delivery. Digital strategies have followed a traditional trajectory, starting from the implementation of base infrastructure (internal digitalisation and digital signature), then phase of development of common infrastructure, such as national portals (for citizens *Borger.dk* and for business *Virk.dk*), eID solutions, and communication platforms (Digital Post) (Igari, 2014; Meyerhoff Nielsen, 2017b). To reap the potential benefits of digital infrastructures and established service delivery channels, the digital-by-default approach (in many cases mandatory online self-service) was implemented in the 2011-2015 period. The cross-governmental digitisation strategy initiated a gradual transition towards mandatory online self-service and digital communication. The goal was to eliminate paper forms and paper letters and reach, by 2015, digital-only 80% of Danish citizens' and 1005 business communications with public authorities (more than 100 central, regional and local government



procedures were made mandatory for online self-service). In addition, mandatory Digital Post from public authorities was introduced in 2014 (DIGST - Digitaliseringsstyrelsen, 2011; Meyerhoff Nielsen, n.d., 2016b; Meyerhoff Nielsen & Yasouka, 2014).

In its current strategy (*A Stronger and More Secure Digital Denmark*), the country main focus areas are clearly defined, providing for high-quality government digital services and welfare solutions. Regarding public services, the focus is on information sharing, so as to provide automated and proactive public services solution, and to encourage the development of more cohesive digital journeys when a case crosses the competences of authorities. To achieve this, work on selected user journeys are initiated, and citizens and businesses are increasingly provided with personalised information about themselves and authorities will proactively inform users of upcoming deadlines and events (DIGST - Digitaliseringsstyrelsen, n.d.-a). The historical development core phases of e-Government in Denmark are shown in Table 3.

Table 3: historic development stages of e-Government in Denmark.

PERIOD	MAIN E-GOVERNMENT DEVELOPMENT FOCUSES AND HIGHLIGHTS
2001 - 2003	Digital collaboration. Examples: <ul style="list-style-type: none"> <li>• Digital signature;</li> <li>• Email communication between authorities and citizens.</li> </ul>
2004 – 2006	Efficient payments and internal digitalisation. Examples: <ul style="list-style-type: none"> <li>• Nem Konto (mandatory default citizen account for payments from authorities);</li> <li>• e-Invoicing;</li> <li>• Virk.dk (business portal);</li> <li>• Sundhed (eHealth portal).</li> </ul>
2007 - 2010	Common infrastructure. Examples: <ul style="list-style-type: none"> <li>• NemiD (eID solution);</li> <li>• Federated user management;</li> <li>• EIndkomst (digital income reporting);</li> <li>• Digital Post (unified communication platform with citizens);</li> <li>• Borger.dk (citizen portal);</li> <li>• Common ICT infrastructure.</li> </ul>
2011 - 2015 The path to the future of the welfare	Digital communication is mandatory. Examples: <ul style="list-style-type: none"> <li>• Mandatory Digital Post;</li> <li>• Mandatory online self-service;</li> <li>• Digital welfare services;</li> <li>• Basic data program.</li> </ul>
2016 - 2020  A Stronger and more secure Digital Denmark (2016 - 2020)  Digital Growth Strategy (2018 - 2025)	Government Digital Strategy: user-friendliness and quality, data as a source for growth, security and inclusive digital society. The National Digital Growth Strategy aims to improve Denmark's tech ecosystem and improve conditions for businesses to utilise the benefits of new technologies. Examples: <ul style="list-style-type: none"> <li>• Digital Government: focus on the user-friendliness of digital services, once-only principle and better welfare services, open data, smart cities, automatic business reporting, efficient utility sector, data sharing for once-only principle, digital skills and information security awareness building.</li> <li>• Digital Growth Strategy: matchmaking talents platform, agile regulation to test new business models, computational thinking in elementary schools, cybersecurity reporting tool for companies.</li> </ul>



### 4.3 e-Government in the United Kingdom since 1991

Published in 2000, the *e-Government: a strategic framework for public services in the Information Age* can be considered as UK's first official e-Government strategy. The UK has, initially, followed a similar development pattern as other countries, that is: the development of central portals, coordination mechanisms (Chief Information Officer [CIO] Council drawn from representatives of national and local authorities established in 2005), focus on cost efficiency and productivity improvements.

In 2005, the UK's national *Digital strategy*, and a separate e-Government strategy, entitled *Transformational Government – Enabled by Technology* were published. The nation strategy tackles the development of broadband, set up a multi-stakeholder initiative *Digital challenge* to facilitate digitisation of local authorities' services. Aspects of low take-up of e-Government services, digital divide and social exclusion are addressed. This usher in a period of new organisational setups to facilitate more citizen-centric service design and delivery. A first step consisted in the creation of a dedicated e-Government Unit in the Cabinet Office. Further to this, the Service Transformation Board was created to ensure compliance with a new set of service design principles, as well as to coordinate the work of Customer Group Directors (HM Government's Cabinet Office, 2005). The use of shared services and standardization and implementation of portfolio management and supplier management governance practices were among other focus areas addressed in the strategy.

In 2007-2009, the Cabinet Office announced the centralization of government websites and the creation of the citizen and business portals *Directgov.uk* and *Businesslink.gov.uk*. In the 2009 action plan *Putting the Frontline First: Smarter Government*, the focus shifts to digital public services, a more radical approach to opening up government data, integrate back-office functions, coordinate inspections and assessments. At a national level, the rollout of once-only services such as *Tell Us Once* and the publication of public service performance data is particularly relevant.

In 2010, another wave of government service delivery optimisation followed. Initiated by the UK Digital Champion Martha Lane Fox's strategic review of government internet communication and service delivery, a transition to a more centralised and professionalised government information and service delivery and presentation is initiated (Lane Fox, 2010). In response to the report, a consolidation of all central government information services and application programming interfaces (APIs) under the *GOV.uk* website was initiated (*GOV.uk* is a single website that brings government information and services together); the position of Executive Director of Digital under the Cabinet Office is created to oversee all of the online government presence, and a central team responsible for overall user experience in all digital channels and cross-departmental digital reforms is established in the person of Government Digital Service (GDS) (Lane Fox, 2010).

In 2013, the strategic focus was on building and redesigning government digital services to make them a default choice for citizens and businesses. The strategy has been followed up with departmental digital and awareness raising strategies and cross-government and multi-stakeholder approach to assisted digital and API provision. During this strategy centralization, efforts continued on different aspects - Digital by Default Standard for digital services was elaborated, service quality management and cross-agency governance procedures were implemented (e-Government projects assessment procedure executed by GDS); the strategy also foresees the development of centralised e-Government platforms, centralised performance dashboard for service performance reporting as well as front line information and service provision centralisation - transition to *GOV.UK*. This strategy strengthened the role of GDS as centralised horizontal



coordinators, shared infrastructure developers, guidance providers and gatekeepers for investments in major services. A stronger focus on third-party involvement in public service delivery was also carried out (assisted digital, APIs, etc.).

In 2017, the UK's Government released the national *UK Digital Strategy 2017 and Government Transformation Strategy 2017–2020*. The national strategy focused on strengthening the UK's digital economy and turning it more resilient to changes associated with the exit from the EU (Brexit). The Government Transformation Strategy concludes that the UK delivers increasingly sophisticated digital services and recognises that many departments have reached the limits of transformation without changing how the organisation works. The strategic focus of the new digital government agenda was set on enhanced collaboration across organisational boundaries by joining-up across central and local administration and third parties. As a result, the strategic scope covered not only the shift in delivery channels but also the redesigning of internal back-office processes. The strategy foresaw several other elements, including the integration of service and policy design practices; the forming of multidisciplinary policies and of delivery teams; and a remodelled approach to measuring value and performance at the level of government: instead of conducting it at the service or department level, addressing it through project or programme governance. Further to this, there were three priorities assumed in the strategy: first, design and delivery of joined-up services; second, delivery of major transformation programs, and; third, the Establishment of a whole-of-government approach to transformation. The main instruments for reaching this is building a community group of experts and senior leaders, partnering with similar local GOV community groups, platforms and cross-governmental processes. The historical development core phases of e-Government in the UK are shown in Table 4.

**Table 4: historic development stages of e-Government in the United Kingdom.**

PERIOD	MAIN E-GOVERNMENT DEVELOPMENT FOCUSES AND HIGHLIGHTS
<p>2000 - 2004</p> <p><b>e-Government: a strategic framework for public services in the Information Age</b> (HM Government's Cabinet Office, 2000)</p>	<p>Main focus: facilitate innovation in organisations, departmental e-Business strategies, initiate the provision of common infrastructure and leadership. Examples:</p> <ul style="list-style-type: none"> <li>• Citizen portal UKonline.gov.uk;</li> <li>• BusinessLink.gov.uk;</li> <li>• Directgov;</li> <li>• e-Policy principles for agency policy makers.</li> </ul>
<p>2005 - 2011</p> <p><b>Transformational Government - Enabled by Technology</b> (HM Government's Cabinet Office, 2005)</p> <p><b>Connecting the UK: the Digital Strategy</b> (HM Government's Prime Minister's Strategy Unit and Department of Trade and Industry, 2005)</p>	<p>Focus on addressing the digital divide when accessing the internet, ICT in schools, digitalisation of local administration, internet safety and security, administration digitalisation, citizen-centric public services, use of shared services. Examples:</p> <ul style="list-style-type: none"> <li>• eGov unit in the Cabinet Office;</li> <li>• CIO Council;</li> <li>• Customer Group Directors;</li> <li>• Service Transformation Board;</li> <li>• Transfer GOV websites to central portals (European Commission, 2014)</li> </ul>
<p>2009 - 2011</p> <p><b>Putting the Frontline First: Smarter Gov (Action plan)</b> (Chief Secretary to the Treasury, 2009)</p>	<p>The main focus is on improving public services while reducing public expenditure. Examples:</p> <ul style="list-style-type: none"> <li>• Tell Us Once;</li> <li>• Open data;</li> <li>• Datagov.uk.</li> <li>• Service data publishing;</li> </ul>



	<ul style="list-style-type: none"> <li>• Expansion of shared service Centres;</li> <li>• UK digital champion appointed;</li> <li>• Martha Lane Fox review;</li> </ul>
<p>2011 - 2013</p> <p>Government ICT Strategy (HM Government's Cabinet Office, 2011)</p>	<p>Main focus: an open approach to ICT, mandating open standards, re-aligning take-up of open source and encouraging greater SME participation in government ICT contracts. Examples:</p> <ul style="list-style-type: none"> <li>• The prototype of GOV.UK was launched;</li> <li>• 1500 government websites closed;</li> <li>• Creation of the Executive Director of Digital position;</li> <li>• Centralized government Digital Service.</li> </ul>
<p>2013 - 2015</p> <p>Government Digital Strategy (HM Government's Cabinet Office, 2013)</p>	<p>Main focus: digital by default, improvement of departmental leadership, redesign of major transactional services, centralization of platforms, awareness building, wider stakeholder engagement in public service delivery, co-design. Examples:</p> <ul style="list-style-type: none"> <li>• Redesign of services;</li> <li>• &gt;10000 transactions/year;</li> <li>• Departmental digital leaders;</li> <li>• Digital by Default Service Standard;</li> <li>• Digital Assistants.</li> </ul>
<p>2017 - 2020</p> <p>UK Digital Strategy 2017 (Bradley, 2017), Government Transformation Strategy</p>	<p>Focus on the whole-of-government and joined-up service delivery, multichannel approach and proactive service delivery (reduction of GOV transactions). Examples:</p> <ul style="list-style-type: none"> <li>• Communities of interest (transformation together network experts);</li> <li>• Transformation Peer Group (senior leaders);</li> <li>• Platforms;</li> <li>• Components and business capabilities;</li> <li>• GOV.UK Verify, Notify, Pay;</li> <li>• API standards;</li> <li>• Agile;</li> <li>• Customer-centric procurement guidelines.</li> </ul>

It should be noted that Scotland, Wales, and Northern Ireland have, for various periods, elaborated their respective digital strategies and plans (European Commission, 2018d). However, these digital strategies and plans are out the scope of this report.

#### 4.4 Current Digital Government and Public Service Delivery strategies of Latvia, Denmark, and the UK

All three countries have national digital strategies in place. The UK and Denmark have distinct national digital strategies and strategies for Government digital transformation. In Latvia, the digital transformation of government is addressed in several sections of the national digital strategy, while some other aspects are included in the *Concept of Improvement of the Public Service System in Latvia* and the public sector reform plan. Current digital strategies and government (digital) transformation strategic documents and their content outlines are summarised in Table 5.

While contextually and semantically different, all three have followed traditional patterns focusing first on infrastructure, digital literacy, systems development for back-office efficiency gains in service development, websites and online transactional services and the rollout of key enablers, like eID and digital signatures. The key differences are in the timing of different strategies and initiatives, with Latvia formulating its first e-Government strategies and initiatives later than Denmark and the UK.



Strategically, all three countries have recognised the importance of optimising public service delivery channel strategies, and of ensuring a whole-of-government approach in public service delivery. While initial strategies focused on digitalisation issues and platform development aspects, recent ones put more emphasis on integrated and coherent service delivery.

Different tactics and scopes have facilitated the transition towards more efficient service delivery practices. In the UK, the *digital by default* principle is realised by forcing the supply side (agencies) to offer their services online, and by ensuring that quality benchmarks serve as incentives for their use. From an end-user perspective, opting for digital channels is voluntary (*opt-in* model). In Denmark however, strategic approach is similar in terms of forcing of government to put user-friendly services online, yet in parallel, Denmark has established active *opt-out* policies, which imply mandatory usage of digital services by citizens, with exemption rights for specific citizen groups. In Latvia, the approach retained favours a decentralised organisation, whereby the strategic level prioritises digital channels but leaving implementation and channel strategies to respective institutions. On the usage side, digital-only and voluntary digital *opt-in* approaches are combined, depending on the context, including the service sector and its funding source. Noteworthy exceptions are e-Services financed by EU ERDF (currently most of the cases), for which specific targets for the degree of digitisation have been established. Current ERDF funding requirements imply that respective agencies must ensure that business and public administration- / officials- related digital services reach 90%, and citizen-oriented services reach 50%, digital take-up threshold by 2020 (Latvijas Republikas Ministru kabineta, 2015). In addition, in Denmark and Latvia, the scope of supply-side regulations covers both central government and local administration levels, whilst in the UK only central government services are targeted.

In relation to a conceptual whole-of-government approach, the strategies in all three countries acknowledge the need for the development of shared platforms and components, but on an operational level there are differences: the UK's Digital Transformation strategy recognises the need for design and delivery of joined-up services and sets specific tasks to establish cross-government mechanisms, language, tools and techniques, and frameworks to approach and deliver major transformations across government. The strategy also outlines a preliminary list of services areas and user-journeys to be improved (HM Government's Cabinet Office and Government Digital Service, 2017a). Denmark's recent strategic focus is on the need to develop a more cohesive public sector when it comes to service delivery. Specific initiatives are set, including 1.1. "*More cohesive user journeys*" which foresees the redesign of selected cross-agency digital journeys from the citizens / businesses perspective; 1.3. An integrated overview of citizens' interactions with authorities and benefits; and 3.1. "*Cohesive welfare pathways for citizens*", where cross-sectoral welfare pathways will be analysed and data sharing piloted. The current Latvian digital government strategy (the oldest of the three compared) recognises the problem of fragmentation in public sector service delivery. It is addressed by the development and usage of common platforms and implementation of the *once-only principle*, but the strategy does not identify specific service areas or user-journeys which could benefit from a review of their service design.



Table 5: strategic documents and initiatives related to Digital Government development.

	LATVIA	DENMARK	UNITED KINGDOM
NATIONAL DIGITAL STRATEGY	<p><b>Information Society Development Guidelines 2014-2020: Action Lines</b></p> <ul style="list-style-type: none"> <li>• ICT Education and e-Skills;</li> <li>• Wide access to the Internet;</li> <li>• Effective public administration;</li> <li>• e-Services and digital content;</li> <li>• Cross-border cooperation for Digital Single Market;</li> <li>• ICT Research and innovation;</li> <li>• Trust and security.</li> </ul> <p><b>Overlying Principles</b></p> <ul style="list-style-type: none"> <li>• Open data for economic development;</li> <li>• Rational ICT governance;</li> <li>• Effective operational processes;</li> <li>• E-Governance quality.</li> </ul>	<p><b>Strategy for Denmark’s digital growth (2018-2025)</b></p> <ul style="list-style-type: none"> <li>• Digital Hub Denmark (increase business access to digital skills);</li> <li>• SME: Digital;</li> <li>• The Technology Pact (facilitate technical education);</li> <li>• Strengthened computational thinking in elementary school;</li> <li>• Data as a driver of growth (open data, facilitate take-up);</li> <li>• Agile regulation for new business models;</li> <li>• Strengthened cybersecurity in companies (security portal, reporting for companies).</li> </ul>	<p><b>UK Digital Strategy 2017</b></p> <ul style="list-style-type: none"> <li>• Connectivity: building world-class digital infrastructure;</li> <li>• Skills and inclusion: giving access to digital skills;</li> <li>• The digital sectors: making the UK the best place to start and grow a digital business;</li> <li>• The wider economy: help every British business become a digital business;</li> <li>• Cyberspace: making the UK the safest place in the world to live and work online;</li> <li>• Digital government: maintain the UK government as a world leader in serving its citizens online;</li> <li>• The data economy: unlocking the power of data in the UK economy and improving public confidence in its use.</li> </ul>

NB: Table 5 continues on the next page.



	LATVIA	DENMARK	UNITED KINGDOM
GOVERNMENT (DIGITAL) TRANSFORMATION STRATEGY(ies)	<p><b>Information Society Development Guidelines 2014-2020 (parts)</b></p> <ul style="list-style-type: none"> <li>• Part “Advanced and Effective Public Administration”: process improvements by registry integration, e-Participation tools, ICT infrastructure optimization;</li> <li>• Part “eServices and digital content for Public”: service delivery, open data, APIs, shared platforms (payment, eID, eDelivery), e-Health, solutions for cross-border service delivery and natural language processing;</li> <li>• Part “Trust and Security” - eID, ICT security and safety aspects.</li> </ul> <p><b>Concept of the Improvement of the Public Service System in Latvia</b></p> <p>Establishes unified public service quality and performance management framework and Unified Customer Centres.</p> <p><b>Public administration reform action plan 2017-2020</b></p> <p>Foresees the development of methodology and training for citizen-centred service transformation, set up of transformation laboratory to reduce administrative burden.</p>	<p><b>A stronger and more secure Digital Denmark 2016-2020</b></p> <ul style="list-style-type: none"> <li>• User-friendly and Simple Digital Public Sector;</li> <li>• Better use of data and quicker case processing;</li> <li>• Better and more cohesive welfare services;</li> <li>• A better framework for the business community;</li> <li>• Public Sector data as a growth driver;</li> <li>• An efficient utilities sector;</li> <li>• The Public Sector Protects Data;</li> <li>• Robust digital infrastructure;</li> <li>• Digitalization for everyone.</li> </ul>	<p><b>Government Transformation Strategy</b></p> <ul style="list-style-type: none"> <li>• Design and deliver joined-up services <ul style="list-style-type: none"> <li>○ user centred</li> <li>○ focused on meeting user needs</li> <li>○ evidence-based</li> <li>○ delivered using agile methods</li> <li>○ high quality (meeting Digital Service Standard)</li> </ul> </li> <li>• Deliver the major transformation programs: <ul style="list-style-type: none"> <li>○ Location</li> <li>○ Organization change</li> <li>○ Operating model</li> <li>○ Digital</li> </ul> </li> <li>• Establish a whole-government approach to transformation <ul style="list-style-type: none"> <li>○ creates mechanisms to help dep. Identify where they will need to collaborate before funding is set</li> </ul> </li> <li>• Create a safe environment for experimentation and learning around business transformation.</li> </ul>



## 5. Governance models and institutional frameworks

Having looked at the strategic focuses of e-Government and service delivery, it is useful to look at the governance models and institutional capacities for intergovernmental cooperation and coordination to understand the outcomes of digital government. Understanding the mechanisms at play for the realisation of the *whole-of-government* concept in public service delivery is of particular interest.

Latvia has a centralised institutional framework, with few central institutions providing most public services to citizens. Latvia has a two-tier public sector whereby service delivery is largely delegated to municipalities (119), and they have a high level of autonomy. There are existing cooperation initiatives between central and local administrations on the shared provision of national public services in the municipalities (Unified Customer Centres). Denmark has a three-tier public sector, consisting of five regions and 98 municipalities, with a high level of local government autonomy, decision making and service delivery responsibilities (Meyerhoff Nielsen, 2016a). The UK has a more complex organisational set-up, which differs greatly from Latvia and Denmark. Even though it is a unitary state, the UK consists of four constituent countries: England, Scotland, Wales, and Northern Ireland. The latter three are devolved nations with their own directly elected government. The intermediate level consists of 27 county councils, plus the Greater London Authority; at the municipal level, there are 389 local authorities, under which lies a structured grid of sub-municipal authorities that differ greatly among constituent countries (OECD and UCLG, 2016). The general governance and institutional frameworks of Latvia, Denmark and the UK are summarised in Table 6.

As a general summary, all three countries have adopted a centralised approach to governance, with the UK having devolved greater levels of decision making to the Scottish, Northern Irish and Welsh regional authorities. In all countries, service delivery is largely carried out by local governments with high levels of autonomy. Whereas Latvia has a newer and by far simpler administrative framework and approach to governance, Denmark and the UK have additional administrative layers in place for coordination, with the UK having the most complex model in the form of three devolved administrations with their own elected governments in Scotland, Wales and Northern Ireland. At the same time, critical functions in the UK are centralised at the national level, especially in terms of tax collection, budgeting of allocation and expenditures. These aspects lay down the context in which governance and coordination models take place in the coming sections.

**Table 6: general governance and institutional frameworks in Latvia, Denmark and the United Kingdom**

	LATVIA	DENMARK	UNITED KINGDOM
NATIONAL INSTITUTIONAL FRAMEWORK AND GOVERNANCE	<ul style="list-style-type: none"> <li>Centralised model</li> <li>2 levels of government (national and local)</li> <li>119 municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Centralised model</li> <li>3 levels of government (national, regional and local)</li> <li>5 regions and 98 municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Centralised model</li> <li>3 Levels of government (national, regional or intermediate and local or municipal)</li> <li>4 constituent countries, 27 country councils and Greater London Authority, 389 Local Authorities</li> </ul>



DECENTRALISATION OF GOVERNMENT AUTHORITY	A moderate degree of local autonomy and decision-making, including tax and budget spending, well-financed and with a strong lobby in government decisions. A great number of public services delegated to municipalities as autonomous functions. (Kažoka and Stafecka, 2017).	A large degree of local autonomy and decision-making, including tax and budget spending. 70-80% of citizen services are provided by municipalities (Kažoka and Stafecka, 2017).	At the regional level, the system of devolution is asymmetric, the three devolved nations enjoying different levels of autonomy. 25.2% of its public expenditures are carried out by subnational governments, ranking the UK as the 14 <sup>th</sup> most centralised country in the OECD on public spending (OECD, 2016).
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## 5.1 Government – governance and coordination aspects of Digital Transformation

As expected from different socio-economic contexts and histories, all three countries have also adopted different approaches to governance, decision-making and degree of cooperation between authorities and levels of government, private sector, and the civil society.

### 5.1.1 Latvia

The governance model in Latvia as evolved over time. While it remains complex in its nature, three layers can be identified: the strategic, the operational, and the implementation layers. The Latvian e-Governance and coordination model is illustrated in Figure 1.

At the strategic and policy level, direction and vision of digital government in Latvia are framed by the Information Society Development Council (ISDC), which is chaired by the Prime Minister, with members including key relevant ministers and stakeholders from the private sector (Latvijas Republikas Ministru kabineta, 2018). The core responsibilities include advice to the Cabinet of Ministers on information society policies and regulatory issues, implementing shared services in government, monitoring structural funds projects as well as monitoring and coordinating information society activities and projects at the national level.

At the operational level, major changes to the governance model were initiated in 2013. The adoption of the “*Concept of the Organizational Model of Public ICT Management*” established a two-level, federated, and partly centralised, coordination model. At the national level, the Ministry of Environmental Protection and Regional Development (VARAM) operates as State CIO office and is responsible for e-Government strategy and policy coordination, ICT architecture, and e-Government program management functions as a result. Therefore, it is tasked with establishing principles and coordinating national-level issues, such as the implementation of shared services and coordinating cross-agency issues.

Subordinated to the VARAM is the State Regional Development Agency (VRAA), which provides centralised shared services to state and municipal authorities, including the citizens portal *Latvija.lv*, the data exchange platform *VISS.gov.lv*, the national Public Key Infrastructure (PKI) for the e-Authentication and e-Payments modules.

Authorities and agencies are responsible for implementing daily activities and projects in their respective service areas but must apply horizontal principles, comply with national standards and use national shared services. To reduce fragmentation and facilitate coordination at the sectoral level, each sector appointed a Sectorial CIO, who is responsible for the strategic representation of all agencies under the particular ministry. Operational coordination at national level happens in the National CIO forum, which is chaired by



the State CIO (the Deputy State Secretary of VARAM). In addition to government representatives, participants from local government associations and the Parliament are participating. Extended meetings with the participation of private sector representatives are held on a regular basis.

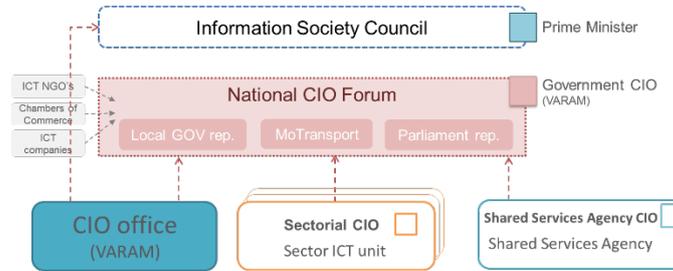


Figure 1: Latvian e-Governance and coordination model. Source: authors.

The Latvian governance and coordination focus is generally associated with information society policy and issues related to ICT implementation and use. The coordination of service delivery is, at the strategic and policy level, a competence shared between VARAM and the State Chancellery. VARAM is responsible for a *one-stop shop* and *once-only principle* implementation in public service delivery – both electronic and face-to-face – whilst the State Chancellery is responsible for the initiation and coordination of reform programmes and policies related to areas such as good governance and administrative burden reduction. As the implementation of the *whole-of-government* approach is closely associated with organisational aspects, the State Chancellery and VARAM work in coordination.

At the operational level, the responsibility for service delivery is decentralised with the respective agencies being responsible for their own service delivery strategy and implementation. An exception to this are ERDF-funded ICT initiatives especially related to the digitalisation of services and service production. If ERDF-funded a minimum, pre-defined threshold level for digital usage (or take-up), it is required to be agreed with the funding authority (i.e. VARAM). The division of main functions and involved actors in public service delivery in Latvia are shown in Table 7.

Table 7: public service delivery responsibility allocation structure in Latvia

NATIONAL LEVEL	VARAM	<ul style="list-style-type: none"> <li>Public service delivery strategy, policy and digitalization principles;</li> <li>Definition of public service delivery performance KPIs;</li> <li>e-Government architecture and standardization initiatives;</li> <li>Government data exchange and open data policy and standards;</li> <li>Portfolio management, monitoring of ERDF-funded e-Government projects;</li> <li>Coordination of Unified Customer Service Centres network;</li> <li>Coordination of Information society development council and CIO network.</li> </ul>
	VRAA	<ul style="list-style-type: none"> <li>Data exchange and shared services platforms for agencies digital services;</li> <li>Citizens portal and unified citizen digital account (official e-address);</li> <li>Centralized performance KPIs platform and public service catalogue.</li> </ul>
AGENCY LEVEL	Sectorial Agencies / Municipalities	<ul style="list-style-type: none"> <li>Public service identification, provision and quality control;</li> <li>Sector-specific public service delivery and channel strategy;</li> <li>Regular performance measuring and reporting in the platform;</li> <li>Provision of central government services and e-service assistance, participate in distributed call-centre network of Citizen's portal.*</li> </ul>



\* Only municipalities participating in the Unified Customer Service Centre program.

The model of service delivery adopted in Latvia is complex, as the various coordinating formations in place address and coordinate different aspects of public service delivery at the strategic level.

In relation to coordination and steering, several entities address different aspects of service delivery. The National CIO forum focuses on coordinating the development of e-Government platforms and e-Government project realisation, according to government ICT architecture. Parallel to this is a Supervisory board on Unified Customer Centres, responsible for coordinating the development of a Unified Customer Centres' network. Business-related process and service improvements are addressed in a steering group, as part of the Business Environment Improvement Plan. In 2018, a Latvija.lv portal advisory board was being established, in view of coordinating the content and development of the government digital gateway with agencies and local governments. The board will consist of representatives from ministries, major government service providers and representatives from local government and industry NGOs. Coordination at the local government level is organised through two existing stakeholder organisations representing municipalities, namely the Latvian Association of Regional and Local Governments and the Latvian Association of Big Cities. These associations are represented in all national government coordination formations, ensuring a higher degree of coordination between national and local government initiatives.

There is currently no permanent steering or coordination forum addressing cross-sectoral process and service redesign initiatives. In practice, a high level of centralised outsourcing a cross-sectoral service redesign projects with decentralised implementation by respective agencies in their sectorial projects (such as the implementation of automatic processing of sick leaves<sup>5</sup>) has been the norm. Recently, the State Chancellery has initiated cross-sectoral initiative on creating a cross-agency administrative burden reduction lab consisting of change agents from each service sector (ministry) that will work collaboratively on issues identified and submitted by citizens. Figure 2 shows the Latvian public service delivery model for governance, coordination mechanisms and actors.

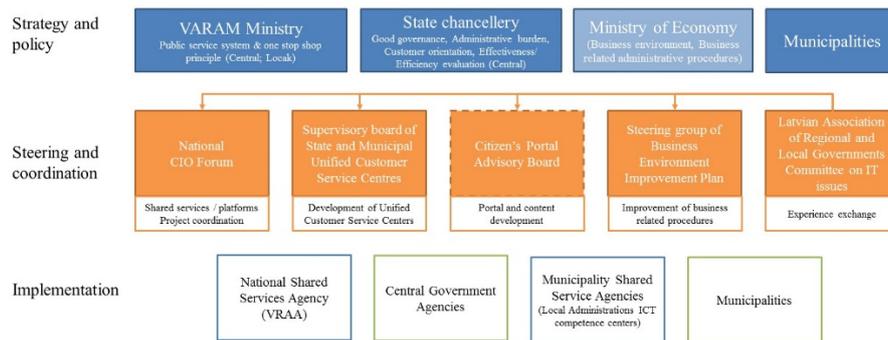


Figure 2: Latvian public service delivery governance and coordination (source: authors).

<sup>5</sup> In 2011, as part of larger project an initiative of preparation of redesign plan for sick leaves was initialized by VARAM Ministry. Sick-leaves processing is cross-sectoral process involving agencies from social security and health sectors, so integrated analysis of process from citizens perspective was outsourced and done in cooperation with respective competent authorities. Tasks resulting from redesign plan were integrated in respective agency level service optimization projects and respective ministries ensured needed regulatory amendments.



To summarise, Latvia currently has a number of horizontal coordination mechanisms in place related to ICT architecture, shared platforms and their usage, coordination of physical customer service centres development and different aspects of service delivery. Government (digital) transformation policies and coordination function are, however, not currently delegated to a single entity with overall responsibility for transformation policy and coordination. Instead, the current institutional set-up involves the State Chancellery and VARAM with some overlapping mandates and responsibilities. On the operational level, the service delivery regulatory framework provides for basic requirements for service identification, minimum quality standards, performance assessment and service digitalisation, which agencies must comply with.

Operational responsibility for service delivery is decentralised, with each agency responsible for a given service area. The only exception is the regulated spheres, such as the establishment of new customer service centres and ERDF-funded service digitalisation, for which VARAM is responsible. The VARAM mandate includes the validation and monitoring of all ERDF-funded e-Government projects, ensuring compliance with government ICT architecture – including data exchanges with local administrations – supervising shared services take-up and consider the interests of local administrations in the process (VARAM, 2017a). Further to this, VARAM has the power to initiate termination of the project in case of non-compliance (Latvijas Republikas Ministru kabineta, 2015). All proposals of shared platforms and other agency projects financed by structural funds are coordinated with representatives of local governments, which have a strong mandate to accept or suspend any given project.

Mechanisms for cross-sectoral and cross-administrative coordination of e-Government projects funded by structural funds are well established; yet, on an operational level, there is currently no single institution responsible for, or steering group with mandate and capacity to, drive and coordinate the realisation of a whole-of-government approach, and to design customer-centric, cross-agency processes and services.



## 5.1.2 Denmark

The Ministry of Finance is the main initiator of strategies and policies regarding e-Government in Denmark. The ministry develops initiatives concerning administration, public leadership and digitalisation to improve efficiency in public administration. The specialised Agency for Digitalization (DIGST) within the Ministry is the main catalyst of initiating cross-governmental strategies in the areas of IT and technology use. The main responsibility of DIGST is to contribute to the accomplishment of the political vision and the strategy, including the associated action plan. DIGST gathers strong strategic, professional and technical competencies within a single organisation. This increases its ability to run e-Government strategies from idea generation to conceptualisation, approval and actual implementation and benefit realisation post-implementation. Table 8 summarises the division of main functions and involved actors in public service delivery in Denmark.

**Table 8: public service delivery responsibility allocation structure in Denmark.**

NATIONAL LEVEL	Ministry of Finance	<ul style="list-style-type: none"> <li>• Initiatives concerning administration, public leadership and digitalisation;</li> <li>• Initiator of strategies and policies related to e-Government.</li> </ul>
	DIGST (Digitaliseringsstyrelsen, n.d-d)	<ul style="list-style-type: none"> <li>• Development of digitalisation policy for the public sector (including initiatives to cut red tape);</li> <li>• Portfolio management, monitoring of Joint Government Digital Strategy 2016-2020;</li> <li>• Shared services for agencies digital services, development of national digital identity;</li> <li>• Citizens portal and unified citizen digital account (Digital Post);</li> <li>• Cyber and information security regulation and standards;</li> <li>• e-Government architecture and data exchange;</li> <li>• User experience, accessibility and cohesive user journey coordination;</li> <li>• IT project management frameworks and professionalisation;</li> <li>• Coordination of Steering Committee for the e-Government Strategy.</li> </ul>
AGENCY LEVEL	Sectorial Agencies / Municipalities	<ul style="list-style-type: none"> <li>• Public service identification, provision and quality control;</li> <li>• Sector-specific public service delivery and channel strategy.</li> </ul>

At the strategic level, DIGST coordinates the national e-Government strategy and chairs the Portfolio Steering Committee (PSC), acting as chair of the decision-making body responsible for the coordination and implementation of the cross-governmental e-Government Strategy and its associated action plan. The PSC is a unique feature of the Danish approach to e-Government as it is cross-governmental and includes stakeholders from all levels of government (DIGST - Digitaliseringsstyrelsen, n.d.-b; Meyerhoff Nielsen, 2017b).

Coordination is ensured at the operational level by project steering groups, which are set up for each initiative in the form of individual projects or programmes consisting of multiple associated projects. Some initiatives are rooted in already existing forums and steering groups, in which case coordination is ensured within the said group. In order to conduct implementation, and to coordinate work across initiatives, the



PSC can set up specific coordination and working groups. Individual programme leaders, project steering committees and working groups report to the PSC on a monthly basis, and/or escalate issues to the PSC whenever necessary. The PSC is supported by two standing committees on legal, financial and budgetary issues, respectively. Stakeholders directly involved in the PSC and in the e-Government strategy action plan include key central government entities, the management committees of umbrella organisations (representing all regions and municipalities) of Danish Regions and Local Government. Stakeholders indirectly involved include representatives of the IT sector, public and private, e.g. Danish Industry (a stakeholder organisation), and citizen groups, e.g. senior citizen representatives and handicap organisations. Similarly, private vendors contracted for the implementation of individual initiatives generally participate in the relevant programme and project steering committees and working groups (DIGST - Digitaliseringsstyrelsen, n.d.-b; Meyerhoff Nielsen, 2017b). The governance levels of Danish e-Governance model is illustrated in Figure 3.

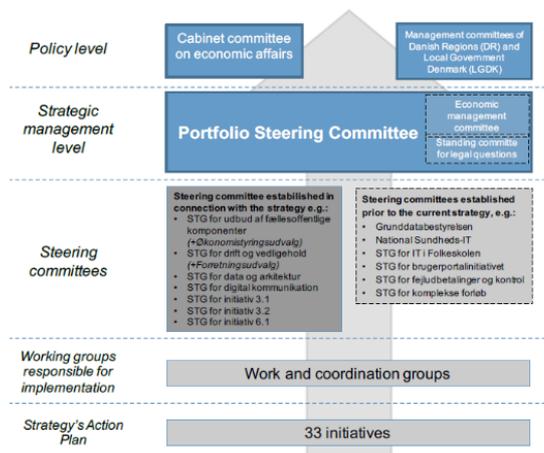


Figure 3: e-Government strategy 2016-2020 Portfolio Steering Committee, project steering committees and work and coordination groups (DIGST - Digitaliseringsstyrelsen, n.d.-b).

At the project level, all state authorities must apply the Common IT Project Model; further to this, for any project over 10 million DKK (approx. €1,3M), a risk assessment must be conducted by the IT Council, and the State Business Case Model must be used. The common IT Project Model is inspired by PRINCE2, it includes principles of phase division and phase transition, a number of management tools, and provides for principles of organisation and roles (Meyerhoff Nielsen & Yasouka, 2014) (Digitaliseringsstyrelsen, n.d.-e).

To summarise, the strong mandates and central roles assumed by both DIGST and the PSC have been recognised as key elements facilitating the Danish e-Government success-story. The joint-governmental nature helped to create a joint vision and ownership of the national vision, strategies and action plans across all three levels of government. Similarly, the link between goals and KPIs in the strategy and individual initiatives helped to ensure successful implementation and benefit realisation.



### 5.1.3 The United Kingdom

In the UK, the Cabinet Office holds overall responsibility for the government efficiency and reform agenda, with the overarching objective to improve the government productivity and effectiveness. Coordination of the e-Government policy resides in the Cabinet Office, under the political responsibility of the Minister for Cabinet Office (European Commission, 2018d).

The Government Digital Service (GDS) was established as the central team in the Cabinet Office, in order to control the overall user experience across all digital channels; it is considered to be the mandated and reference authority responsible for the implementation of the Digital Transformation Strategy and, through support and monitoring, ensure the implementation of the Government’s various digital initiatives. In doing so, the GDS oversees various tasks, including establishing standards for the Government’s digital technologies; identify, curate and share good practices; set professional standards and act as a centre of digital expertise; build and operate shared services that other governments can use; provide digital, data and technology expertise to other Government-led projects; and actively assure compliance with approved standards, spending, timely implementation, envisaged outcomes etc.

Responsibilities of the GDS include running the *gov.uk* portal; coordinating cross-government strategy aiming at simpler and better public services delivery online; building cross-government platforms, e.g. the e-Identification verification method on *gov.uk*; assisting departments in buying technology. Table 9 summarises the division of main functions and involved actors in public service delivery in the UK.

**Table 9: Public service delivery responsibility allocation structure in the United Kingdom.**

NATIONAL LEVEL	Cabinet Office, Minister for Implementation (European Commission, 2018d)	<ul style="list-style-type: none"> <li>• Government efficiency, including digital government policy;</li> <li>• Civil service human resources, Single Departmental Plans.</li> </ul>
	GDS (HM Government’s Digital Service, 2018)	<ul style="list-style-type: none"> <li>• Shared services for agencies digital services, development of national digital identity;</li> <li>• Running the government’s portal;</li> <li>• e-Government architecture, digital service standards and guidance;</li> <li>• User experience, accessibility and cohesive user journey coordination;</li> <li>• Coordination of government steering networks and communities;</li> <li>• Centre of Digital, data and technology expertise, including development capacity;</li> <li>• Spend controls and service assessments.</li> </ul>
AGENCY LEVEL	Departments / Municipalities	<ul style="list-style-type: none"> <li>• Public service identification, provision and quality control;</li> <li>• Sector specific public service delivery and channel strategy;</li> <li>• Departmental transformation plans and initiatives (central government).</li> </ul>

The GDS is governed by the Ministerial Group on Government Digital Technology, together with digital, data and technology leaders responsible for central government departments and devolved administrations (HM Government’s Digital Service, 2018). In addition, the GDS receives guidance by the GDS Advisory Board, the Data Steering Group and the Privacy and Consumer Advisory Group.



During the implementation phase, two major coordination networks are involved: the Technology and Digital Leaders Network (TDLN) and the Data Leaders Network. TDLN was established following the merger of two previously distinct networks of Digital Leaders and Technology Leaders, in order to further the integration of cross-government digital and technology decisions and to meet the objectives of the Digital Transformation Strategy. The Network is chaired by the GDS and is composed of digital and technology leaders from key government departments, plus leaders from each of the devolved administrations (HM Government's Digital Service, 2018). Further to this, a joint Infrastructure and Project Authority, as well as the GDS Transformation Peer Group coordinate major government transformation projects (Meggs and Infrastructure and Projects Authority, 2018).

Coordination of regional and local e-Government policies falls under the responsibility of the Ministry of Housing, Communities and Local Government. At the implementation level, local Councils are responsible for carrying out e-Government projects within the framework of their competence. In Devolved Administrations, additional formations run customer-centric service design programmes, such as the "Customer First" programme in Scotland, the Public Service Leadership Group in Wales, and the Delivery and Innovation Division in Northern Ireland.

The UK is currently in the process of strengthening central government capacities, capabilities and functions; in doing so, it is building capabilities of core government functions, notably through ten corporate functions addressing specific issues, including, among others, a digital function (HM Government's Cabinet Office, 2015). This will bring specialist skills together and will take a cross-cutting and whole-of-government approach to the way central government entities operates, with the objective to improve the delivery of government policy and services. This approach is expected to strengthen the role of the GDS in the process further.

To summarise, the UK managed the *whole-of-government* approach by establishing a key competent authority at the centre of government and equipping it with a strong mandate, multi-disciplinary capacities and competencies. This effort includes all digital functions coordinated by GDS, as well as by joining up steering networks, so as to create a more coherent knowledge-sharing and coordination across government sectors and level. Departments still define and implement their own digital strategies, but standards are set centrally, and major or high-risk transformation programmes and services of the central government are centrally-guided, supported and scrutinised. The current coordination models seem loosely connected to regional and municipal levels, though a closer integration at the local level on the usage of shared services and information integration is currently being explored (HM Government's Cabinet Office and Government Digital Service, 2017a).



## 5.2 Current digital governance and intergovernmental models in Latvia, Denmark and the UK

In conclusion, the three countries have taken different approaches to the coordination of e-Government implementation and the digital transformation of public sector production and delivery. In Latvia and Denmark, the responsibility of strategy development lies at the ministerial level, while the UK has embedded this function to the Cabinet Office. Both Denmark and the UK have specialised and mandated agencies setting-up and implementing respective national digital strategies. The presence of professional and technical competencies within a single organisation facilitates their ability to run e-Government strategies and to coordinate a *whole-of-government* approach. In Latvia, on the other hand, there is no such single digital transformation centre; instead, roles are shared among VARAM (ministry), VRAA (technology focused shared services agency) and the State Chancellery.

Denmark's DIGST has a strong and recognised mandate, working both at the strategic and operational level, towards the development and execution of strategies and individual initiatives. At the operational level, DIGST works within a framework of formalised steering committees, the PSC, which includes representatives from different agencies and municipal and regional associations; this format can be used to escalate issues for decision making or troubleshooting. Although it is chaired by DIGST, it remains cross-governmental in nature, with a sense of joint ownership across all levels of government. In the UK, GDS plays a central role in implementing and coordinating strategic digital transformation initiatives; it also has the capacity to oversee strategic coordination, monitoring, analytical work, provision of advisory assistance and even to execute practical implementation. The GDS cooperates with existing coordination networks; yet considering the administrative context, integration with regional and local authorities occur with a lower frequency than in Denmark. In Latvia, the coordinating roles for ICT-enabled government transformation are at the policy level shared between the State Chancellery and VARAM. At the operational level, VARAM coordinates the development of e-Government architecture and standards, yet the development of specific platforms, like data exchange platform and the national portal *Latvija.lv*, remains in the hands of the VRAA shared services agency; in this way, however, additional effort is required to ensure that policy development and implementation is consistent and coordinated.

Coordination models differ in the three countries. In Denmark, the PSC coordinates both the policy and strategy levels; at times, and at the operational level; it is composed of representatives from all government levels. Similar to this is the UK's ministerial-level coordination group (the Ministerial Group on Government Digital Technology) which is set up at the strategic level. In addition, the work of the GDS is guided by several groups involving members from the government, non-governmental organisations (NGOs) and the private sector. In Latvia, there is a ministerial-level network (ISDC) chaired by the Prime Minister, with members from central and local governments, business and ICT stakeholder organisations and NGOs.

At the implementation level, steering models also differ in the three countries. In Denmark, each strategic initiative in the action plan has a steering committee, as well as a number of permanent steering committees; this allows for better cross-sectoral coordination. In the UK, there are two permanent coordination networks: TDLN and Data Leaders networks, chaired by the GDS. In Latvia, there is a coordination network of state CIOs, which mainly focuses on ICT and data exchange matters; yet there is currently no interdisciplinary coordination network for the transformation and public service aspects. Table 10 summarises the governance of Digital Government and public service delivery strategies and action plans in Latvia, Denmark and the UK.



**Table 10: e-Governance in Latvia, Denmark and the United Kingdom.**

	LATVIA	DENMARK	UNITED KINGDOM
<b>The responsible authority for government (digital) transformation strategy</b>	VARAM, ISDC on Information Society Development Plan and Public Services Improvement Conception, State Chancellery on state administrative reform (Latvijas Republikas Ministru kabineta, 2012)	Ministry of Finance, DIGST (including the PSC for the e-Government strategy)	Cabinet Office, Minister for the Implementation, Ministerial Group on Government Digital Technologies, +GDS Advisory board, Data Steering Group, Privacy and Consumer Advisory Group
<b>Action plan</b>	high level	yes	no (there is a roadmap)
<b>The responsible authority for the action plan</b>	VARAM	DIGST	Cabinet Office, GDS
<b>Steering networks</b>	CIO network (national and local government representatives)	Steering committees (strategy specific and permanent)	Technology and Digital Leaders Network and Data Leaders Network
<b>Chairperson organisation</b>	VARAM Ministry	DIGST	Cabinet Office <sup>6</sup>
<b>National e-Governance and cooperation model</b>	Hybrid: centralised in relation to strategy and policy but decentralised in implementation. At projects level, central and local government coordination formats with strong mandates exist.	Centralized and driven by DIGST, representatives from all levels of government.	Hybrid: centralized in relation to national strategy but decentralised in relation to Devolved Administrations and local governments.

<sup>6</sup> Starting on 1 April 2018, the Secretariat team running the Data Leaders Network moved under the Department for Digital, Culture, Media & Sport.



## 6. Internet access, key digital enablers, citizen e-Services, take-up and impact

Having outlined the relevant countries' socio-economic contexts, their governance and inter-governmental models, this section provides insights on their respective results vis-a-vis information societies and digital governments. Aspects include access to the Internet, digital skills, key digital enablers in place and the level of citizen services digitalisation and take-up.

### 6.1 Internet access, use, digital skills and non-users of the Internet

Internet-mediated services are widely accessible in all three countries, thanks to the successful roll-out of internet infrastructures: Next Generation Access (NGA)<sup>7</sup> broadband coverage in all countries is comparably high, reaching 91.3% of households in Latvia, 94.6% in Denmark and 93.9% in the UK (European Commission, 2015a). Rural territories are also reasonably well covered with fixed broadband: in the UK and Denmark, fixed broadband coverage in rural areas is close to 100% (UK: 99.8%, DK: 97,5%). In Latvia, the figure is lower, at 82.4% (European Commission, 2015d, European Commission, 2015c); a determining factor, however, lies in the tendency of Latvian consumers to switch to unlimited mobile 4G internet data plans provided by mobile operators competitively priced when compared to fixed broadband. Indeed, the OECD's Digital Economy Outlook 2017 highlights that, as a result of the introduction of unlimited data plans, Latvia and Finland currently have the EU's highest mobile data usage per mobile broadband subscription (OECD, 2017b). A defining feature of Latvia's and Denmark's internet infrastructures is the availability of high-speed internet access, with fibre-to-premises coverage in Latvia reaching 85.3% (the EU's second highest) and in Denmark reaching 62.7% of households. In the UK, however, overall broadband coverage remains high, the proportion of fibre-to-premises broadband is nonetheless considerably lower, at a mere 2.3% rate (Eurostat, 2018a).

With respect to mobile Internet access, Denmark has considerably higher mobile broadband subscriptions rates than Latvia and the UK (Eurostat, 2018a). Concerning the take-up of available internet access at home, this correlates to the regular usage of internet access indicators, with over 90% of Danish and UK citizens using the internet regularly, i.e. from daily to at least once a week. By comparison, only 78.5% of Latvians do so, as illustrated in Table 11. The proportion of people who have never used the Internet in Latvia remains higher than both in Denmark and the UK.

**Table 11: broadband access and internet take-up by citizens (source: Eurostat, 2018a).**

	LATVIA	DENMARK	UNITED KINGDOM	EU28 AVERAGE
Broadband at home (%) / Mobile broadband (subs. per 100)	76.5% / 90.8%	92.1% / 129.5%	93.1% / 89.8%	84.7% / 90.2%
Fibre to premise (% of households)	85,3%	62,7%	2,3%	26.8%
Using once a week	78.5%	95.3%	92.7%	80.9%
Have never used	15.8%	2.03%	3.9%	12.9%

<sup>7</sup> Next Generation Access refers to Internet access featuring at least 30 Mbps/s download speed.



## 6.2 Key enablers

The availability of key e-Government enablers, such as online identification, authentication, digital signature and digital post, varies across the three countries. Since 2003, Denmark has had a common **e-Identification solution** called *NemID (EasyID)* used by the public and private sectors. The UK does not have a government-provided eID solution, yet in 2016, the UK's GDS implemented "*UK Verify*", whereby online identification is provided by certified private companies. Identification is currently used in main government services, yet critics are regularly voiced, in particular regarding the low success rate, slow expansion to other government services and privacy concerns. Online identification is widely available in Latvia, yet implementation differs from both the UK and Denmark. Latvia has a combined approach: as from 2012, Latvia implemented national ID-cards for citizens with integrated digital signatures and online identification authentication certificates. However, most of the government e-Services are currently using online-banking authentication solutions for secure access and identification; consequently, in more than 95% cases, identifications are made through online banks. Nine bank-provided eID services are currently integrated into government services platforms, representing a 96% market share of Latvia's consumer banking system. In order to solve the eID take-up challenges at the national level, a national mobile ID and signature system were launched in January 2018: *eParaksts.lv*, as part of the national ID scheme. It provides a cloud-based, qualified identification and signing solutions (Latvijas Valsts radio un televīzijas centrs, 2017). Further to this, in 2018, amendments to regulations were initiated, so as to introduce mandatory ownership of eID cards for citizens and providing unlimited, free-of-charge e-Authentication and e-Signature functionality starting from 2019, both in national ID cards, Mobile ID and Mobile e-Signature solutions.

Both Latvia and Denmark have **national PKI and ID schemes**. The Danish scheme was developed and is being used across public and private sectors alike, thereby providing a unified user experience for citizens, and boosting take-up levels as a result. Since 2013, all Danes are, by default, issued with a digital identity. Active opt-out is possible if a citizen is in a unique situation, does not have Internet access or the required digital literacy to use e-Services. In Latvia, the national ID is currently not as widespread and thus has not become the default tool for citizens' online identification authentication. This lack is compensated for by an open eID policy, establishing an ecosystem allowing private sector providers to play a major role: Internet-banking authentication has, therefore, become the *de facto* default tool for receiving government services, thus providing a unified tool for public and private digital services with a relatively high level of take-up. The UK does not have a country-wide electronic ID scheme; if *UK Verify* provides a unified tool for receiving public and private digital services, the level of take-up remains too low for the service to reach a significant proportion of the UK's citizens.

**The official digital post** is fully introduced in Denmark and has been mandatory for citizens aged 15 or above since 2013. Like the eID digital post, it can be opted out of if a user is in a unique position, lacks internet access or digital skills. All government entities must be able to send and receive digital post via the national infrastructure, but it is not mandatory for digital communications. However, the 2012-2015 e-Government strategy specified that a minimum of 80% of all physical communication is to be done via digital post from 2015 onwards – a target generally exceeded. In Latvia, an official digital post (*e-Adrese*) was launched in June 2018 for institutions, and it is expected to be extended to citizens and businesses in January 2019 (starting from October 2018, *e-Adrese* is accessible in beta mode (VRAA, 2018c). While *e-Adrese* is already mandatory for national and municipal institutions, the obligation will only be extended to businesses (by 2019) and courts (by 2020); adoption expected to remain accessible on a voluntary basis for citizens (VARAM, 2018).



The **once-only principle** has been recognised as one of the ways to ensure more integrated service delivery, as administrations can exchange information for their functions without interfering with citizens. Such a principle is widely adopted both in Latvia and in Denmark: in Latvia, the principle is listed in legislation, i.e. in Article 59 of the Law on Administrative Procedures, which reads: “If the information needed by an institution is [...] at the disposal of another authority, the institution shall acquire the information itself rather than requiring it from participants in the administrative proceeding”, and in the Law on State Information systems; it is applicable to any government procedure as a result (Latvijas Republikas Ministru kabineta, 2003). In Denmark, this principle is realised through the “Basic Data” programme (Digitaliseringsstyrelsen, n.d-a). In the UK, it is applicable on a case-by-case basis, e.g. the *Tell Us Once* service allows information births and deaths to be shared across government departments so that citizens are only required to provide this information once to public authorities (HM Government, n.d-h).

**Supporting technical infrastructure** is supervised by national data exchange platforms in place in Latvia and Denmark. At the moment, the UK does not have a similar set-up. However, there are disclosed plans to create authoritative registers and to forego actions to remove current barriers to effective data use in government (HM Government’s Cabinet Office and Government Digital Service, 2017b).

All three countries have established **national citizen portals**. The Latvian portal *Latvija.lv* serves as the central platform for delivering services at the national level but also contains descriptions of municipality-level service and, in some cases, links to municipality websites for further information. In Denmark, the *Borger.dk* portal integrates information and e-Services from all levels of government. *Borger.dk* is considered a critical infrastructure component and the default portal for all citizens services in Denmark, no matter the level of government, and is governed by a cross-governmental board and jointly funded by the central, regional and local governments. The UK’s *gov.uk* portal is centrally-administered, and mainly focuses on central government information, but some local level information and transactions are also integrated, e.g. bank holidays in England, Wales, Scotland and Northern Ireland, or application for alcohol licensing in specific areas, such as England and Wales.

Latvia, Denmark and the UK applied different strategies regarding **minimum standards-setting for usability and unified citizen digital experience** across government. In Latvia, basic requirements for the development and provision of digital services at national and local levels are stated in regulatory acts - “Regulation on Government Digital Services” – (Latvijas Republikas Ministru kabineta, 2017). The regulation covers such aspects as customer-oriented service design (Latvijas standarts, 2016, ISO, 2010)<sup>8</sup>, performance measurement, customer analysis, once-only principle, use of shared components, web accessibility (Latvijas standarts, 2017, ETSI et al., 2015)<sup>9</sup>, development of APIs, proactivity and duty to facilitate take-up of the digital service. More specific technical guidelines are provided for services developed within the national citizen’s portal *Latvija.lv* (VRAA, 2018a). There is no community practice built around standards or usability or citizen-centric service design. Agencies are responsible for the compliance, but no strict compliance validation process has been put in place so far.

In Denmark, a usability guide, namely *Udviklingsvejledning for god selvbetjening*, was developed as part of the e-Government strategy 2012-2015. The usability guide and its current 25 requirements are mandatory

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<sup>8</sup> Latvia’s standardisation authority registered the internationally recognised ISO rule from 2010 in 2016.

<sup>9</sup> Latvia’s standardisation authority registered the European Standard from 2015 in 2017.



for all government websites and e-Services, as part of the mandatory self-service strategy applicable to approximately 70 high-frequency, high-volume service areas; adoption and compliance remains voluntary for others (Digitaliseringsstyrelsen, 2015). DIGST is the responsible authority for guideline development. Guidelines include process recommendations, usability criteria, code examples, tools and templates; there is also a practitioners' community, including vendors. Regarding compliance to standards, all high-frequency, high-volume e-Services, which fall within the scope of the mandatory online self-service strategy (at the national, regional and local level), must comply with national usability standards set out in the usability guide. All relevant central, regional and local authorities are responsible for the compliance of their own services, but a screening and escalation process is in place. National portals are responsible for screening and, in case of non-compliance, the portals can escalate issues to the PSC.

In the UK, the GDS has developed the Digital Service Standard, a mandatory set of guidelines for all national authorities, which remains open for others to follow on a voluntary basis (HM Government, n.d-d). It contains 18 design principles, including mandatory reporting of performance measures on the Performance Platform (HM Government, 2013). In addition, there is a service manual laying down recommendations to meet standards and covering such aspects as accessibility, measuring success, agile delivery, service assessments, design and end-user research (HM Government, n.d-f). Further to this, in June 2018, the GDS released a GOV.UK Design System framework containing styles, components and patterns designed to help teams in government create user-centred digital services (HM Government, 2018a). The UK has a strong GDS-backed practitioners community, curating user research and service design, such as the Design System working group (HM Government, 2018b). Compliance is ensured by mandatory and voluntary assessment procedures, carried out centrally by specialised teams in GDS, or by the responsible authority, depending on service transaction volumes (HM Government's Standards and assurance community, 2017). Availability and take-up of key e-Government enablers are shown in Table 11.



Table 12: availability and take-up of key e-Government enablers.

	AVAILABILITY			LEVEL OF TAKE-UP			
	LATVIA	DENMARK	UK	LATVIA		DENMARK	UK
National eID or other eID solution recognised for public services <sup>10</sup>	yes <sup>10</sup>	yes	yes	15,4% (300'000)	71,8% (1.42 million)	87,4% (4,9 million)	2,3% (1,5 million)
Official digital post	yes <sup>11</sup>	yes	no	0%		89% <sup>12</sup>	n/a
Once only principle <sup>13</sup>	general principle	for specific data sets	for specific services	n/a			
National data exchange platform	yes <sup>14</sup>	yes <sup>15</sup>	no	n/a			
e-Services usability standard/guides	yes/no <sup>16</sup>	yes	yes	Mandatory for <i>Latvija.lv</i> e-Services	Mandatory for major e-Services at all government levels	Mandatory for all central government e-Services	
Is there a compliance process?	yes/no <sup>16</sup>	yes	yes	Screening: VRAA (citizens' portal). No escalation foreseen.	Screening: portals. Compliance: agencies. Escalation foreseen.	Screening: GDS. Compliance: agencies. Escalation foreseen.	
National citizens' portal	yes	yes	yes	Key platform for central government information and e-Services, information loosely linked to the local level.	Key platform for information and e-Services at all levels of government	Key platform for central government information and e-Services, deep links to the local level.	
Linked private sector info?	no	no	no	n/a			

<sup>10</sup> Most public services are available means of internet banks: the proportion of take-up is calculated as % of population, who are online banking users of 9 banks providing e-Identification for public e-Services. The Number of clients of those 9 banks make up 96% of all private clients in Latvian Banks. LATVIJAS KOMERCBANKU ASOCIACIJA. 2018. *Vispārējie dati uz 31.12.2017*. Available: <https://www.financelatvia.eu/wp-content/uploads/2018/03/Visparejie-dati-2017-gada-4-ceturksni.pdf>; Data for Denmark and the UK is also from 2017 BBC NEWS. 2017. *Low success rate for government online ID service* [Online]. The British Broadcasting Corporation. Available: <https://www.bbc.com/news/uk-politics-41642044> [Accessed 27/11/2018], FINANCE DENMARK. 2017. *NemID (future MitID)* [Online]. Finance Denmark. Available: <http://financedenmark.dk/hard-figures/financial-institutions-branches-employees/payments/nemid-future-mitid/> [Accessed 27/11/2018].

<sup>11</sup> Mandatory for central and local government from June 2018; available for businesses and citizens on 2 January 2019.

<sup>12</sup> DIGITALISERINGSTYRELSEN. n.d-f. *Special focus on young people* [Online]. Digitaliseringsstyrelsen. Available: <https://en.digst.dk/policy-and-strategy/mandatory-digitisation/digital-post/young-people/> [Accessed 26/11/2018], *ibid.*, *ibid.*

<sup>13</sup> GOVERNMENT OF LUXEMBOURG (CTIE) & KURT SALOMON. 2015. Security and data protection measures in the context of 'Once-only' and reuse of existing data approaches [Online]. Luxembourg Government. Available: [http://www.eupan.eu/files/repository/20151209104842\\_Presentation\\_-\\_CTIE\\_Study\\_'Security\\_and\\_data\\_protection\\_measures'\\_-\\_Luxembourg\\_Presidency\\_2015.pdf](http://www.eupan.eu/files/repository/20151209104842_Presentation_-_CTIE_Study_'Security_and_data_protection_measures'_-_Luxembourg_Presidency_2015.pdf) [Accessed 23/11/2018], *ibid.*

<sup>14</sup> State information System integrator VRAA. 2018b. *Informacijai* [Online]. Valsts Reģionālās Attīstības aģentūra. Available: <https://viss.gov.lv/lv/Informacijai> [Accessed 01/12/2018].

<sup>15</sup> Denmark Data Distributor STYRELSEN FOR DATAFORSYNING OG EFFEKTIVISERING. n.d. Datafordeler [Online]. Styrelsen for Dataforsyning og Effektivisering,. Available: <https://datafordeler.dk> [Accessed 01/12/2018].

<sup>16</sup> Regulation on service digitalization basic requirements, but without guides + specific design and technical standards and guides to publish services on citizens' portal.



To summarise, in order to guarantee an integrated citizen experience in government service design, each of the three countries applied different strategies. All of them have established basic standards for online public sector services but with different level of support for their actual application, and with different strengths of compliance control. Latvia, Denmark and the UK established whole-of-government approaches regarding the development of **services standards**, yet with different levels of details. The UK and Denmark provide guidelines covering look-and-feel aspects of all major government services at all government levels. In the UK, the major central government services must comply with the Digital Service Standard. In Denmark, all high-frequency, high-volume e-Services at any level of government must comply with the usability requirements and is voluntary for low volume, infrequently used e-Services. In Latvia, basic requirements and general principles are set, but they do not go as far as specifying design and look-and-feel aspects; look-and-feel aspect requirements are only provided for e-Services developed within the national portal *Latvija.lv*. Another characteristic common to the UK and Denmark is active and functioning **communities of practices**, working around service design and usability aspects.

Approaches to **compliance** also differ among Latvia, Denmark and the UK: while all three rely on decentralised development and maintenance, Denmark and the UK have gatekeeping compliance and escalation procedures in place (under the command of GDS in the UK and in national portals in Denmark), while compliance procedures are not formalised in Latvia.

When looking at the **national citizens' portal concepts**, different levels of integration and whole-of-government maturity are found: Denmark has a shared platform for all national, regional and local government services, where information and transactions are integrated on, or link to, the portal. Portals are cross-governmental, co-owned and jointly financed. The UK provides a lower level of integration of local government services, although basic information is centralised and deep-links are provided to local content (although not always complete). In Latvia, the national portal mostly covers national services and links to local government services in the form of a centralised catalogue of municipal services, yet this is not fully integrated in terms of presenting the content of the national portal. None of the three countries currently achieved fully-integrated private sector services on their portals.

### 6.3 Digitalisation levels of main government services

When it comes to the availability (i.e. supply) of online government services, Denmark and Latvia score above the EU average on online availability of services, while the UK scores below. The EU DESI index for Life Event situation services online in 2017 shows that Denmark scores highest with 95%, followed by Latvia at 90,8% and the UK at 76,3%, with the EU28 average being 82,1% (European Commission, 2018a).

Considering the approach to digital channel positioning, the Danish approach to channel strategies is characterised by a high percentage of mandatory digital services, and the focus is on actively eliminating paper applications and physical correspondence in favour of a digital post and online self-service. The approach is based on active marketing, increased usability and active opt-out. By comparison, in the UK and Latvia, only a minor part of procedures monitored in the life event benchmark are accessible solely through on digital channel. While citizens are encouraged to use e-Services, this is voluntary, and most services are available on paper forms. Although it is not reflected in the latest e-Government benchmark results, Latvia has systematically realised digital-only approaches to several high-frequency, high-volume service areas, such as applications for rural support grants, sick-leave automatic data exchange and e-



Prescriptions. Table 13 summarises the online availability of basic government services and the share of mandatory digital services in major life situations in the three countries.

**Table 13: online availability of basic government services (life situations), EU e-Government benchmark.**

(European Commission, 2017c, European Commission, 2016)

	LATVIA		DENMARK		UK	
	ONLINE	MANDATORY <sup>17*</sup>	ONLINE	MANDATORY <sup>17*</sup>	ONLINE	MANDATORY*
Share of steps in a life event that can be completed online (total average), 2017	93,9%	-	95%	-	76.3%	-
Business <sup>18</sup>	97%	0% (0/17)	98%	75% (3/4)	79%	0% (0/14)
Family <sup>18</sup>	80%	0% (0/8)	100%	57% (4/7)	72%	0% (0/8)
Job <sup>18</sup>	94%	0% (0/7)	94%	71% (5/7)	79%	0% (0/8)
Studying <sup>18</sup>	86%	0% (0/3)	96%	100% (3/3)	89%	0% (0/4)
Economic activity <sup>19</sup>	100%	-	100%	-	100%	-
Moving <sup>19</sup>	90%	-	100%	-	81%	-
Transport <sup>19</sup>	89%	-	95%	-	61%	-
Justice <sup>19</sup>	90%	-	77%	-	49%	-

## 6.4 Take-up of commercial government digital services

To gain insight into the actual and potential impact of approaches pursued by Latvia, Denmark and the UK, it is useful to look at availability and actual take-up of digital services in relation to preconditions, such as internet availability and the digital skills in each country. Therefore, it is particularly interesting to consider the use of online public sector service offers in relation to comparable private sector service offers, such as uses in online banking (e-Banking) and commerce (e-Commerce). While this is not a perfect comparison, looking at peoples' use of e-Banking and e-Commerce provides valuable insight into peoples' attitudes to internet-based services, their perceived value, trust in technology and the presence of digital skills. Interaction with banks and shopping is generally more frequent than the interaction with public sector services. This holds true even as the complexity of services, security and data sensitivity issues are comparable.

### 6.4.1 Take-up levels of digital services: commercial and government

All three countries rank above the EU28-average of 67,6% (of internet users) when it comes to ordering goods and services online (European Commission, 2017b); the UK is the highest-ranking country in the EU (86.2%), Denmark ranks third (82.4%), while Latvians seem more traditional: slightly more than half of Latvians (55.4%) have used e-Commerce solutions in 2017 (European Commission, 2017b). Similarly, when online

<sup>17</sup> Mandatory indicates percentage and number of procedures in specific life situation which have been made mandatory online.

<sup>18</sup> Data based on the 2017 edition of the EU e-Government benchmarking.

<sup>19</sup> Data based on the 2016 edition of the EU e-Government benchmarking.



banking use is considered, all three countries ranked above the EU28-average of 61,4% (European Commission, 2017d); with more Danes (92.5%) using e-Banking solutions than in Latvia (75.2%) and the UK (72.2%). However, digital interaction with the government does not follow the same trend: Danes are the most frequently acquiring information online (91.7%) and using transactional e-Services (72.9%) in Europe. Meanwhile, far more Latvians are using the Internet to search for government information (83.2%) than their UK counterparts (51.5%), with slightly more Latvians using e-Services (46.8%) compared to their UK equivalents (36.3%). The degree of digital take-up between 2013 and 2017 has remained relatively stable in Denmark for e-Banking, e-Commerce and the use of government service offered online, following the rapid growth of the later in the years 2010-2012 (European Commission, 2018a). By comparison, the picture in Latvia and the UK is more mixed: between 2013 and 2017, there has been a relatively stable growth in terms of digital take-up of the private sector (e-Banking, e-Commerce) and government services in the UK. In Latvia, e-Banking and e-Commerce services follow the same trend, while the use of government services online grew rapidly between 2013 and 2015. This period coincides with sectorial digital take-up plans introduced then, together with the first government-wide awareness campaigns. Historical evolution of commercial and government online services take-up during the period of 2013-2017 in Latvia, Denmark and the UK are illustrated in Table 14 and Figure 4.

**Table 14: take-up of commercial and government online services (source: European Commission, 2017a).**

	LATVIA			DENMARK			UNITED KINGDOM		
	2013	2015	2017	2013	2015	2017	2013	2015	2017
Individuals ordering goods or services online (% of internet users) <sup>20</sup>	41.5	47.6	55.4	81.2	81.7	82.4	84.7	87.4	86.2
Online banking (% of internet users) <sup>21</sup>	73.0	81.2	75.2	87.1	88.1	92.5	60.1	63.5	72.2
Citizens' use of e-Government services (% of internet users) <sup>22</sup>	46.4	65.2	83.2	89.5	91.2	91.7	45.0	52.9	51.5
Submitted a complete form (e-Service) <sup>23</sup>	16.5	36.4	46.8	68.9	71.1	72.9	23.8	34.4	36.3

<sup>20</sup>Variable code: *isoc\_ec\_ibuy*

<sup>21</sup>Variable code: *isoc\_ci\_ac\_i*

<sup>22</sup>Variable code: *isoc\_r\_gov\_i*

<sup>23</sup>Variable code: *isoc\_r\_gov\_i*

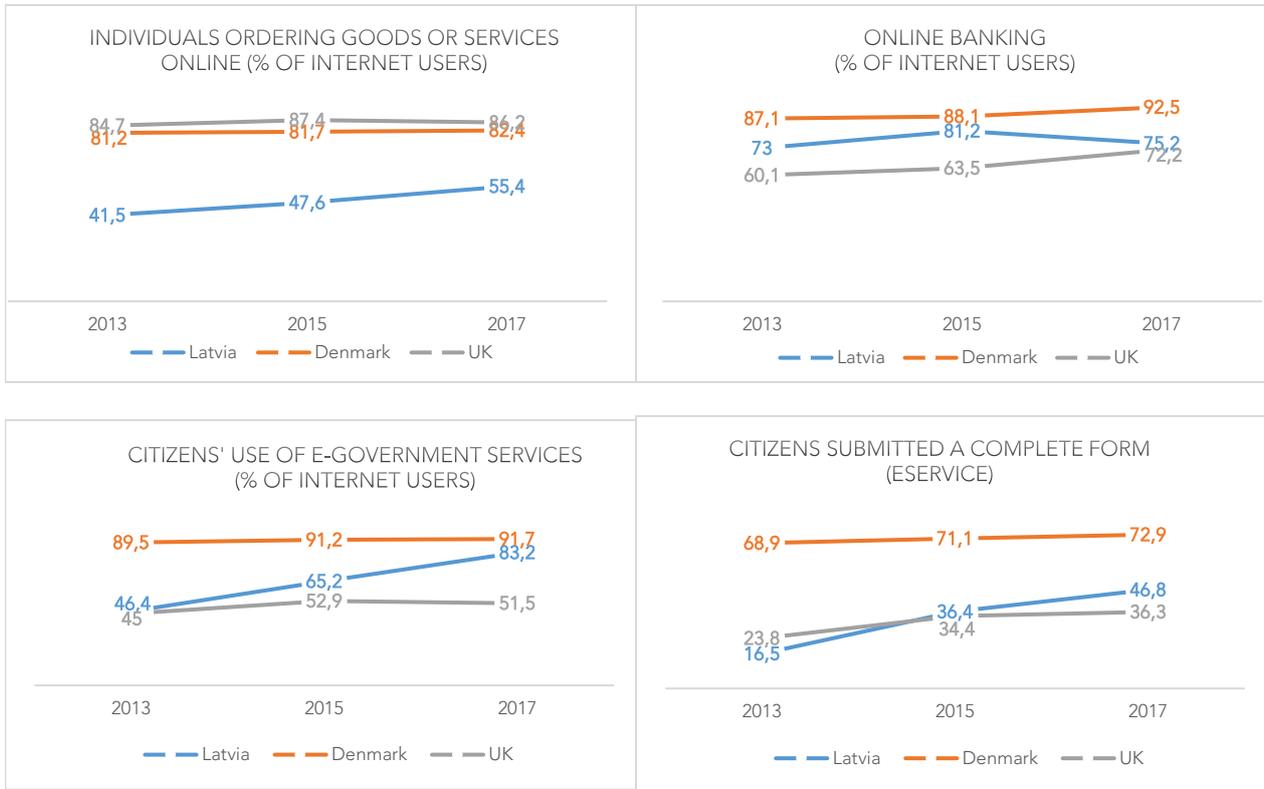


Figure 4: take-up of commercial and governmental online services.

#### 6.4.2 Take-up levels of main government digital transactions

In order to analyse digital take-up of government services in different sectors, a basket consisting of a selected number of major citizen- and business-oriented transaction services were measured. The selected services are all monitored in the European Union e-Government benchmarks but are also found for comparable procedures in at least two of the three countries compared in this analysis. As Latvia and the UK only address central-government level in their digital strategies, while in Denmark's e-Government strategy, all government levels are addressed, only data for central government services is analysed.

Based on publicly available data, in the three countries, the total number of transactions for government services measured differ considerably due to their different population sizes (HM Government, n.d-g). In Latvia, 120.6 million transactions were measured, whereas in the UK, 3.26 billion public service transactions were recorded in 2016 (HM Government, n.d-g, VARAM, 2017b). In Denmark, information is available only on e-Services included in the mandatory online initiative, amounting to 5.5 million requests for central government services in the same year. At the same time, there is a considerable amount of mail shipments to citizens and businesses: 96.5 million annual physical shipments plus 20.9 digital in 2011 (Spitze&Co, 2016). It is therefore important to look at the "degree of digitisation", i.e. the percentage of online service requested out of the total volume of requests in a given service area.

When comparing digital take-up of specific government services, data of services transactions for the UK and Denmark are available for 2012 and 2016, and for Latvia for 2013 and 2016, but not all data is available



for all three countries, as illustrated in Table 14. While Denmark monitored the degree of digitisation under the past e-Government strategy, the measurement was discontinued in 2017. Therefore, the data analysis is based on results obtained in the 2016 digital transition report (Spitze&Co, 2016). In the UK, the GDS performance platform is mandatory and must be populated with certain key data, including the degree of digitisation of individual central government services. In Latvia, data is gathered through the annual national e-Government benchmark, *Latvijas e-indeks*s (Latvijas e-indeks, 2018). As from 2020, data on public service performance will be published on the national performance platform.

Table 15: digital take-up of government procedures. (VARAM, 2017b) (HM Government, n.d-g) (Spitze&Co, 2016)

	LATVIA		DENMARK		UNITED KINGDOM	
	2013	2016	2012	2016	2012	2016
Registering a company	23%	40% <sup>24</sup>	-	100%	- / 96% <sup>25</sup>	23% / 97% <sup>25</sup>
Income TAX declaration	13%	56%	100%	100%	-	-
Rural support grants / payments	22%	100%	-	-	81% <sup>26</sup>	
Apply for child birth benefit <sup>27</sup>	0%	16%	-	98%	-	1,5% <sup>28</sup>
Apply for pension	0%	0,019%	94% <sup>29</sup>	95%	6%	31%
Jobseeker's allowance	0%	3%	-	100%	31%	87% <sup>30</sup>
Apply for practical driving exam	0%	100%	See <sup>31</sup>	79%	98%	
Change of address <sup>32</sup>	-	58%	63%	92%	See <sup>31</sup>	

Data for individual services show different patterns. In Denmark, there seems to be a high and consistent level of digital take-up across different government sectors. This can be explained by a strategic, coordinated policy implementation, notably the mandatory self-service (active opt-out) initiative rolled-out between 2012 and 2015 (Digitaliseringsstyrelsen, n.d-c). The high take-up of the national PKI and eID solution, service usability standards and compliance procedures arguably facilitates these results. There remains a lack of information on the proportion of digital take-up in service areas out of the scope of the

<sup>24</sup> VARAM 2017b. Valsts iestāžu e-indeks 2017. Online: data.gov.lv: Vides Aizsardzības un Reģionālās Attīstības Ministrija,.

<sup>25</sup> Digital transactions include transactions by intermediaries, as an example for March 2018: 23% through website; 75% - by web service, used also by intermediaries; HM GOVERNMENT. n.d-c. *Company Registration* [Online]. HM Government,. Available: <https://www.gov.uk/performance/company-registration> [Accessed 01/12/2018].

<sup>26</sup> HM GOVERNMENT. n.d-a. *Basic Payment Scheme (BPS)* [Online]. HM Government. Available: <https://www.gov.uk/performance/defra-basic-payment-scheme-bps> [Accessed 30/11/2018].

<sup>27</sup> In Latvia - average data on two services – application for an allowance for child birth and allowance on child care.

<sup>28</sup> HM GOVERNMENT. n.d-b. *Child Benefit transactions* [Online]. HM Government. Available: <https://www.gov.uk/performance/hmrc-child-benefit> [Accessed 30/11/2018].

<sup>29</sup> NIELSEN, M. M. 2017. eGovernance frameworks for successful citizen use of online services: A Danish-Japanese comparative analysis. *JeDEM JeDEM - eJournal of eDemocracy and Open Government*, 9, 68-109.

<sup>30</sup> HM GOVERNMENT. n.d-e. *Jobseeker's Allowance: new claims* [Online]. HM Government, . Available: <https://www.gov.uk/performance/jobseekers-allowance-new-claims> [Accessed 01/12/2018].

<sup>31</sup> No such centralized service is legally required / existing

<sup>32</sup> For Latvia- data from Office of Citizenship and Migration of Latvia, 2016; For Denmark - service handled by local authorities.



mandatory digital initiative, due to the lack of performance data. Both Latvia and the UK have progressed considerably during the 2012-2016 period, although the take-up of the digital channel varies by sector. In the case of the UK, the voluntary digital-by-default approach (active opt-in) is in place, but the lack of a widely used PKI and eID solution makes it difficult to drive an e-Service take-up, even if the quality and level of usability of e-Services are high. In some cases, the UK offsets this by relying on APIs allowing to provide face-to-face, assisted e-Services, including through third parties, e.g. private sector care providers. By comparison, the Latvian experience shows that in service areas where channel strategies and legal tools have been actively applied to promote e-Service use, the degree of digitisation has also risen, even in services areas where the target users do not necessarily have a high level of digital literacy, such as applications for rural support grants and applications for drivers licence exams, which both have 100% digital take-up.

An observation drawn from the UK experience is that online service use can be driven by usability for specific service (see Table 14) if the overall degree of digitisation has remained the same (see Figure 4, citizens submitted a complete form). This contrasts with Latvia's experience where e-Service use has been slower for specific services, yet more rapid progress in e-Service user base is observed, up from 16,5% in 2013 to 46.8% in 2017. One interpretation of this may be that when opt-in strategies are applied, then the user base tends to remain stable; on the other hand, the application of active opt-out strategies where the degree of digitisation increases for both individual service areas and for the country overall. This indicated that behavioural change can be facilitated by a cross-governmental approach to channel strategies and that active opt-out strategies, on the whole, are helpful, as reflected in Latvia's and Denmark's situation.



## 7. Comparative analysis and concluding remarks

The context in which public services are produced and delivered has a direct impact and critically affects a number of policy decisions, including the definition of priorities, the application of relevant instruments and the attainment of objectives. Such contextual elements as social, cultural, economic, technology, governance and strategic characteristics of any given country, are likely to affect their respective approaches to develop, maintain and deliver public services. Table 15 summarises key contextual elements in Latvia, Denmark and the UK.

**Table 16: summary of contextual factors in Latvia, Denmark and the United Kingdom.**

	LATVIA	DENMARK	UNITED KINGDOM
Socio and Cultural	Small, high-income country, low-density population and two-tier administration.	Small, high-income country, high-density population three-tier administration.	Large country, high-income, one of the largest EU economies, high-density population and three-tier and complex administrative structure.
Resources	High GDP growth.	High productivity but with low growth and stable GDP growth.	High productivity and stable GDP growth.
Constraints	An ageing population, government efficiency, lack of formalized processes, productivity.	An ageing population, low government productivity growth, financial resources.	Complex administrative structure, financial resources.
Technology	A high proportion of people are using the internet regularly (78.5%). Still, there is a large proportion of internet non-users (15.8%).	The vast majority of people are using the internet regularly (95.3%), both for governmental and commercial services.	The vast majority of people are using the internet regularly (92.7%), more for commercial than governmental services.
Leadership	Shared leadership between VARAM, Ministry and State Chancellery, strong political will.	Strong leadership by DIGST, coordinated and consensus-based approach, tightly controlled process.	Strong leadership by the Cabinet Office and GDS, assisted and controlled process.

### 7.1 Context

The three countries are marked by very different socio-economic backgrounds. Latvia is a geographically compact country, whose economy experienced rapid growth in later years, following a period of severe austerity. In the midst of its economic turmoil, the country's governance structure adapted to a new reality, following three years of drastic austerity measures, which have seen the country's public sector employment decreasing by 25%, and the availability of public services considerably decreased as a result. Further to this, a declining population and scattered low-density population areas are additional issues to be considered, in view of the fact that: a considerable amount of service delivery is delegated to the municipal level. In this context, government digitalisation is widely regarded as one of the main strategic instruments likely to improve government efficiency and service availability to citizens. By comparison, Denmark has a consistently growing economy with relatively stable governance structures. Public service delivery is managed at the local level, with a large degree of autonomy. In the UK, one of the largest economies in the EU28 enjoying stable growth, the complex administrative structure, whereby devolved nations benefit from



different levels of autonomy, complicates a number of aspects in policy implementation and performance measurement. Yet, at the national level, a process of centralisation and strengthening of core government functions is currently in motion.

In terms of technology development, Latvia, Denmark and the UK all have well-established Internet infrastructures, where Denmark and Latvia enjoy a much higher proportion of high-speed connections. All three countries reached high levels of Internet and digital services adoption, with Denmark and the UK in the lead, whilst Latvia has a considerably higher proportion of digitally excluded citizens, who have never used the Internet. This situation is yet to be addressed in the future drafts of channel strategies for service delivery, assisted digital services and digital skills policy priorities.

Related to e-Government development, each of the countries in focus has gone through different phases; and it is evident that not only strategic focuses, but also organisational models, have evolved over time. That said, all three countries have followed a traditional trajectory, focusing initially on the implementation of base infrastructure (internal digitalisation, digital signature), followed by the development of common infrastructures, such as national portals, eID solutions, and communication platforms (Igari, 2014; Meyerhoff Nielsen, 2017b). All three countries demonstrated some level of leadership and coordination in strategy development, as well as in their transition to digital public services delivery and *whole-of-government* approaches. The national approaches nonetheless differ, with the UK and Denmark having different strategies for e-Government. Still, both are undergoing an overall broader digital transformation of their respective societies. By comparison, the approach is significantly more disjointed in Latvia, with multiple ICT, e-Government and administrative reform policies undertaken over the years, which makes coordination more complex and fragmented.

## 7.2 Preconditions to transformation: strategy, governance, enabling technologies and practices

The ways by which public service delivery transformed, in order to become more efficient, citizen-oriented and reaching a higher degree of a *whole-of-government* approach, requires a significant degree of strategic attention. This is evident by strategic focuses in the strategic, operational and technical capacities developed, and through the innovative approaches to service production and delivery pursued. Table 17 compares the strategies, capacities for transformation of digital public services, and *whole-of-government* integration in Latvia, Denmark and the UK.



Table 17: summary of strategic and organisational key enablers for whole-of-government approach applied in Latvia, Denmark and the United Kingdom.

	LATVIA	DENMARK	UNITED KINGDOM
Strategic recognition and long-term planning (including scope)	In strategy: <i>whole-of-government</i> as a principle, tasks for data sharing and shared services. Mostly central.  Action plan: general.	In strategy: tasks of cohesive user journeys and welfare services, data sharing and shared services. Central and local.  Action plan: specific (Digitaliseringsstyrelsen, n.d-b)	In strategy: joined-up services, <i>whole-of-government</i> approach to transformation, the principle of data sharing and shared services. Central services.  Action plan: general.
Leadership and decision-making process	<ul style="list-style-type: none"> <li>Partly</li> <li>Shared responsibility between VARAM and State Chancellery</li> <li>Strategy coordination council, e-Government architecture coordination process. No service delivery and process design coordination</li> <li>Scope: national, regional, business</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Leading organisation: DIGST and PSC</li> <li>Strategy steering, strategy task steering committees</li> <li>Scope: national, regional, business, citizens</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Leading organisation: Cabinet Office and GDS</li> <li>Coordination Networks for Technology and Digital transformation and Data</li> <li>Scope: national</li> </ul>
Enabling organizational and process design	Ministry: e-Government architecture gatekeeping function for e-Government EU projects. Central shared services agency. Administrative burden cross-sectoral analysis task force (temporal). Municipality competence centres.	Single agency on policy development, shared services provision, implementation coordination, gatekeeping & guidance in national and local level	Central responsibility in Cabinet Office, single coordinating and executing agency at the national level with strong in-house expertise. Gatekeeping, guidance and advisory functions at the national level.
Process reengineering practices	Administrative burden reduction cross-sectoral Task Force. Targeted cross-sectoral process analysis and redesign projects.	Strategically set cross-agency processes to be redesigned, centralized analytical capacity and multi-stakeholder task steering committees (Digitaliseringsstyrelsen, n.d-g)	Centralized cross-agency process and user insight analysis by GDS.

### 7.2.1 Strategy

As a result of contextual variation and different strategic focuses, Latvia, Denmark and the UK have adopted different approaches to advancing the digital transformation of government and public service delivery. These tactics have yielded different results. In all three countries, high levels of government service digitalisation and take-up of digital services has been achieved, but stark differences have, nonetheless, persisted. Notably, Denmark has achieved higher degrees of digitisation than Latvia and the UK. Logically, the higher internet accessibility and use in Denmark and the UK should lead to a higher take-up of e-Commerce and e-Banking solutions than in Latvia; interestingly, this is not the case for Latvians. While the use of transactional e-Services in Denmark is the highest, this is followed by Latvia, which considerably outperforms the take-up level measured in the UK.



This can be explained by different tactics applied when implementing digital-by-default approaches in public service delivery. In Denmark, there has been a strategic and coordinated “digital-first, paper-elimination” policy focus, combining strategic programmes for mandatory online self-service (active opt-out) and digital-only between 2012 and 2015 (Digitaliseringsstyrelsen, n.d-c), a well-established PKI and national eID system, as well as usability service standards and compliance procedures offering limited opt-out possibilities on the user side. In Latvia, the strategic approach was similar in terms of forcing government entities to put information and transactional services online while leaving channel strategies the responsibility to the individual entity responsible for a given service area. Elements facilitating online service usage by citizens in Latvia include a well-established use of the private sector PKI and eID solutions, integrated awareness campaigns and mandatory online self-service (active opt-out) or digital-only initiatives in selected service areas: e.g. for services financed by EDFP structural funds, ensure minimum digital take-up levels. This has enabled Latvia to leapfrog in terms of the take-up of government service offers online. By comparison, the UK has pursued a voluntary, digital-by-default (opt-in) approach. This choice, combined with low usage of the PKI and eID solution, makes it difficult to drive e-Service take-up, even if the quality of online service offers and the usability standards are high. It must, however, be noted that, in some cases, this lack was balanced out by the use of APIs to promote assisted e-Service provision.

The comparative analysis of Latvia, Denmark and the UK suggests that driving the take-up of online service offers, supply-side policies are often not sufficient to realise the full potential of digital service production and delivery, even if citizens overall digital readiness is already assured, as observed in the UK. In contrast, the Latvia experience highlights that even in the event of a lack of universal service quality control mechanisms for digital public services, the take-up of digital services can be facilitated by regulatory means, as long as these are conducted with sensitivity to the target audience, e.g. their digital skills.

The approach taken by Latvia’s Rural Development Agency shows that a high degree of digitisation by a group of low-skilled users can be achieved if motivational and supportive mechanisms are put in place to facilitate behavioural change and channel strategic changes. For example, this was achieved with the provision of digital assistant services. In addition, the cross-country analysis highlights a critically important pattern: that is, when opt-in strategies are applied, the user base tends not to change behaviour, and the growth in the degree of digitisation tends to be relatively low, even if the quality and usability of e-Services are high. In order to facilitate an increase of the digital user base, i.e. growth in the proportion of citizens using e-Services, sector-specific overall digital-only and active opt-out strategies are helpful to drive up the degree of digitisation.

With regards to the *whole-of-government* approach, at the strategic level, recent strategies followed in the three countries all address relevant aspects, albeit with varying degree of detail. In the recent strategies adopted in Denmark and the UK, joined-up, cohesive service design are defined as central axes for public service delivery. The strategies contain specific service areas and user-journeys to be addressed and has, in Denmark, even resulted in a detailed action plan. By comparison, Latvia strategically emphasis the once-only principle, yet specific joined-up services and user-journeys are not specifically mentioned. As strategic cross-agency and joined-up initiatives require organisational changes, it is recommended to draft them at the strategic level, so as to secure senior involvement, support and cohesion across government entities and levels.



## 7.2.2 Leadership and governance

Leadership and governance aspects are essential to ensure appropriate coordination between the policy, operational, implementation and delivery levels. It proves especially important at the implementation phase of government-level transformation initiatives, such as *whole-of-government* approaches, once-only principles and joined-up services operations. In doing so, strong leadership involvement is required, and decision-making shall be made at the strategic level.

The approach to leadership and governance models differs considerably across countries. In Latvia and Denmark, the responsibility of strategy development lies at the ministerial level, unlike in the UK, where the Cabinet Office assumes this role.

At the operational level, Latvia, Denmark and the UK are all equipped with some form of central e-Government authority, i.e. shared knowledge and coordination centres, yet each of them enjoys varying degrees of competence, different strengths of mandates and different strategic and operational roles. As such, the scope and degree of integration achieved, both at horizontal-, i.e. agency-level, and vertical-, i.e. between central-to-local administration levels, varies considerably. In Denmark and the UK, cross-governmental coordination has led to the establishment of centralised strategic transformation entities, whose role includes oversight of the entire digital government transformation agenda and process, as well as the executions of cross-agency analysis and coordination required for *joint-* and *whole-of-government* initiatives.

The Latvian governance and inter-governmental models do not accommodate such strong digital transformation centres; instead, responsibilities are shared between VARAM, the VRAA and the State Chancellery. This leaves Latvia vulnerable if there is a lack of leadership, coordination and ownership of the government's digital transformation agenda. As no single agency is responsible for overseeing and coordinating the transformation process, it becomes relatively more difficult to ensure a successful implementation of the agenda since the required operational coordination may be lacking, together with the strategic and operational capacity to support long-term digital transformation.

In terms of coordination, Denmark's strategy combines task-based steering committees with permanent coordinating committees, while the UK maintains permanent networks of cooperation. By comparison, Latvia relays on coordination networks for e.g. ICT and e-Government architecture, temporal cross-agency network for administrative burden reduction, and projects-based service reengineering. However, it lacks a permanent function for the coordination of the government transformation process, in which whole-of-government and joined-up operative coordination are needed in terms of technology choices and usage, but also organizational and administrative process at the strategic, operational and implementation levels.

## 7.2.3 Enabling technology, culture, regulatory and service-delivery practices

Technology can enable customer-centric and whole-of-government approach realisation, as it enables the complete integration of experience and process resulting in user-centric service journeys and whole-of-government ecosystems. In parallel, cross-sectoral practices, communities and financial regulatory frameworks (i.e. instruments) are likely to facilitate the transition from agency-oriented to whole-of-government approaches to service delivery. Table 18 analysis these aspects in Latvia, Denmark and the UK.



Table 18: summary of technology, cultural, regulatory and service delivery practice enablers for the whole-of-government approach in Latvia, Denmark and the United Kingdom.

	LATVIA	DENMARK	UNITED KINGDOM
Enabling technologies	Citizens' portal, mandatory shared services (e-Payments, e-Identification, single sign-on, official e-Delivery, national eID, basic registers, data exchange platform)	Citizens' portal, shared services (eID, official e-Delivery, national eID, basic registers, and data exchange platform)	Integrated single government domain, shared services (eID, e-Payments, and e-Notifications), and centralized performance platform
Enabling service delivery channels and cross-functional delivery units	Citizens' portal (mainly national services), Network of Unified State and Municipal Customer Service Centres	Citizens' portal (integrates information and services from all government levels)	Single domain portal for citizens and businesses, information part also integrates local level
Enabling people and culture aspects	Co-creation, co-design, UX training for government officials	Task-related communities	Join-up policy and delivery, cross-departmental communities of practice, multidisciplinary training at the Digital Academy
Enabling customer insight and co-creation practices	Centralised life situation analysis and descriptions, administrative burden reduction laboratory (customer insight crowdsourcing through web and mobile apps)	Cross sectoral initiatives in strategy and supportive multi-stakeholder steering group, chaired by DIGST	Cross-sectorial customer journey analysis at GDS, centralised digital, data and technology expertise, available to other agencies for a critical project
Service design standards, measurements and enforcement	Service design standard only for national portal services.	Services design standard and guidelines, mandatory to national and local level e-Services	Services design standard and manual, mandatory to national level e-Services
Enabling policy, legal and financial framework (e.g. financing of cross-sectoral activities)	Regulation on digitation of government services enforces the application of user experience and accessibility standards (for national and local level e-Services), e-Government reference architecture (mostly central government level)	Compliance and screening process for major digital services (all administrative levels), self-service reference architecture (non-mandatory) that includes guides on development of interconnected services (service chains)  (Digitaliseringsstyrelsen, 2018b)	Compliance and screening process for major digital services (at the national level)

To ensure a more unified approach to public sector service production and delivery, Latvia, Denmark and the UK have implemented various technological solutions and taken different approaches to service delivery. A common feature in all three countries is the creation of a unified one-stop service portal, albeit with differences in focus and the level of information and service integration, coverage and completeness. None of the current portals integrates relevant private-sector information related to specific topics, which may provide a more integrated user experience. It is worth noting that in Latvia, face-to-face channels are also being unified by means of implementing a network of State and Municipal Customer Service Centres. This unified interface integrates service delivery of central government agencies with local governments. Furthermore, unified, shared services for payments, identification and notification are in place. All three



countries have identification schemes, with identification tools shared between the public and the private sectors, potential yielding a more holistic, cross-sectoral user-experience. Denmark's experience highlights that higher take-up levels of digital identification can be reached when working closely with the private sector.

Another common technological solution to support the whole-of-government approach is basic data registers and the *once-only* principle. In Latvia and Denmark, basic data registers and cross-agency data sharing means that the *once-only* has been common practice for years, and appropriate data exchange platforms are already in place. Similarly, the UK has started to focus on basic data registers and stronger cross-agency collaboration on data exchange in its Digital Transformation Strategy. For all three countries, the sharing of data is seen as a tool to underpin the whole-of-government concept, improve back-office productivity and the quality of service delivery.

To enable changes in service design approaches and facilitate the evaluation of whole-of-government and joint-service concepts, cultural, customer-insight and service design aspects have to be addressed. Denmark and the UK have government-wide online usability standards in place, with which e-Services must comply. In Latvia, service digitalisation strategies are seen as the competence of the individual service producing authority, although a minimum threshold for digitalised service take-up has been defined. Centralized benefits realisation monitoring has been initiated, so as to provide incentives for agencies to implement approaches facilitating digital take-up; these include such measures as usability, awareness or digital-only regulation. Both the UK and Denmark acknowledge the need for continuously updated service design standards in their latest strategies and also address the cross-agency dimension. Denmark and the UK have a centralised customer insight analysis capacity, allowing them to coordinate (in Denmark) or analyse in-house (UK), the cross-agency user journey. Latvia, by comparison, focuses on general training courses on usability, customer engagement and co-creation, but cross-agency case analysis and service design remain a challenge. Strong coordination networks and communities of practice on service delivery or user-experience are also evident elements of mature whole-of-government approaches observed in Denmark and the UK. In Latvia, communities of practice are mainly organised around aspects of ICT, shared services and customer centre, with a stable community around service delivery and customer insights missing, although pilot-project, cross-sectoral administrative burden reduction and transformation team was formed in 2018 to address this weakness.

With respect to the enabling policy and regulatory frameworks, Denmark and the UK have compliance and screening processes in place for major high-volume, high-frequency services. These only apply to the central government in the UK, whereas both central, regional and local levels are monitored in Denmark. In Latvia, legal regulations stipulating that the development of central administration and local administration level e-Services must comply with international standards on usability and accessibility, even though compliance processes are only in place for EDFP-funded projects.

#### 7.2.4 Outcomes and results

Outcomes are results achieved in a given project or process of transformation. In the context of this analysis, two categories of outcomes are of particular interest. That is the digital transformation of government in relation to the scope of efficiency, engagement and inclusion for the one hand, and introduction of the whole-of-government approach to public service production and delivery on the other hand. Table 19



summarises outcomes for service digitalisation and whole-of-government approaches followed in Latvia, Denmark and the UK.

**Table 19: summary of outcomes for service digitalisation and the +whole-of-government approach in Latvia, Denmark and the United Kingdom.**

	LATVIA	DENMARK	UNITED KINGDOM
Efficiency goals	Increased public service availability after austerity cuts of the civil service.  Saving in time and resources.	Efficiency gains for institutions by mandatory digitisation: Digital Post and online self-service.	Assemble services more quickly and at the lower cost.  More focus on agencies' core functions by using shared platforms.
Digital take-up levels	High citizen participation in digital communication with the government (83.2%). Digital services take-up: moderate, sector dependent	Very high participation in digital communication with the government (91.7%). Digital services take-up: high overall	Moderate digital communication with the government (51.5%). Digital services take-up: moderate low, sector dependent.
Whole-of-government (end user perspective)	Once-only as a core principle for all government processes and services. Decentralised access to information, centralisation of platforms for digital service delivery and official communication. Moderate level of integration with local government (use of official e-address, network of Unified state and municipal customer centers). Cross-sectoral service integration mostly on information level (life situation descriptions).	Once only of core data groups. Centralised information and digital service delivery channels, high level of integration of national and local level information and transactions. Cross-sectoral service integration on information and portal level ( <i>borger.dk</i> cross-sectoral dashboards), emerging cross-sectoral business process integration (cohesive user journeys).	Emerging once-only principle. Centralised information and digital service delivery channel, a high level of national information and digital transaction integration and a moderate level of local information integration. Cross-sectoral service integration mainly on information and portal level, emerging cross-sectoral business process integration (joined-up services).

When looking at the degree to which the **whole-of-government concept** has been achieved, the cross-country analysis, from an end user's perspective, shows that Denmark and the UK have achieved higher levels of uniformity and administrative integration of service delivery to citizens online. This holds true, for instance, when considering look-and-feel across major public websites and online transactional services, or when considering levels of integration on the national citizen portals. Denmark integrated information and e-Services from all levels of government while the UK's single central government portal integrates major local-level information and transactions. Latvia, by comparison, has achieved integration across government service areas, but online service offers from the local government level remain weak when compared to Denmark.

### 7.2.5 Evaluation and monitoring

Continuous evaluation and monitoring through well-defined strategic and operational performance criteria are essential to ensure that existing strategies and tactics yield sufficient results, desired outcomes and that improvements are felt in the short, medium and long term. Regular assessment and consideration for customer feedback are essential components of a sustainable innovation process. Table 20 summarizes customer feedback and monitoring practices of Latvia, Denmark and the UK.



Table 20: summary of evaluation and monitoring practices in service digitalisation and whole-of-government approach in Latvia, Denmark and the United Kingdom.

	LATVIA	DENMARK	UNITED KINGDOM
Customer feedback practices	Mandatory performance and user satisfaction evaluation per service. Statistical satisfaction surveys at the national level. Digital feedback tools on administrative burden and inefficiencies ( <i>mazaksslogs.gov.lv</i> , app – Futbols)	Discontinued service performance monitoring standard used for 2011-2015 strategy to monitor the progress of implementation of mandatory digital policy.  Digital Strategy 2016-2020	Mandatory performance and user satisfaction evaluation standard per service at different service delivery phases. Comprehensive evaluation framework, publishing in performance platform.
Performance evaluation and monitoring practices	Mandatory transaction level performance measurement (for national and local services). From 2020 onwards to be published in the performance platform.	Task 1.2 includes action to develop common requirements for collecting knowledge about users until mid-2018. (Digitaliseringsstyrelsen, 2018a)	Mandatory transaction level performance measurement, published in performance dashboard (national services).
Accountability	Evaluation to make better decisions on service quality, channel strategies on agency and national level. Agencies shall annually assess results and reflect corrective actions in their internal plans. If projects by structural funds, a minimum threshold of digital take-up has to be reached.	In the period 2011-2015 for services included in the mandatory digital program, a minimum threshold of digital take-up was set.	Publicly shared on the Performance Platform. Used by agencies to assess service quality and plan improvements and as an acceptance criterion for Digital Service Standard.
Impact	Currently, indicators are focusing on efficiency, though starting from 2020 user satisfaction will be on of base indicators for all e-Services.	Indicators measure efficiency and user satisfaction per service (Digitaliseringsstyrelsen, n.d-h)	Indicators measure efficiency, quality and user satisfaction per service.

Latvia and the UK have centralised methods for customer feedback and performance evaluation. In Latvia, a dedicated framework specifies seven core indicators per service: four for all services, in addition to three for digital channel only. These are to be applied to all national and local level services, starting in 2018. Results are published in the public performance platform starting in 2020. In the UK, a comprehensive monitoring framework for digital services is in place, featuring publication on the public performance platform. In Denmark, the local equivalent to a performance platform, i.e. the digital scorecard and *anvendelse.borger.dk*, was discontinued in 2017; yet, common monitoring requirements are expected in 2018.

In all three countries, monitoring is currently done at the service or departmental level mainly. Although a more strategic focus is put on the *whole-of-government* and joined-up services approach, the UK acknowledged the need for a cross-sectoral measurement system in its latest digital strategy, so as to monitor value and efficiency at government-level, instead of service- or department-level assessments only.

With regards accountability of monitoring, Latvia has strictly regulated performance monitoring and accountability frameworks, with minimum thresholds defined for digital take-up. In Denmark, thresholds for digital take-up were defined in the previous strategic period, and even though the focus strategic currently favours user-satisfaction, the overall framework is yet to be defined. In the UK, performance measurement is a binding criterion for major services to be launched. It is considered as an instrument for agencies to analyse their service quality, costs and user-friendliness.



## 8. Conclusion

The aim of this report was to analyse different models, methods and practices found in Latvia, Denmark and the UK, for the creation of a more citizen-centric and coordinated eco-system for public service delivery underpinned by technology. The analysis includes next generation whole-of-government approaches. Throughout the analysis, a particular focus has been on governance and inter-governmental cooperation models, technology choices and approaches taken to service design enabling the creation of a public sector service delivery framework and ecosystem adapting to different service areas, organisational boundaries and levels of government. The main findings derived from the analysis can be summarised as follows:

- A. The digital transformation strategies of countries with more stable administrative structures are more conducive and responsive to whole-of-government approaches and citizen-oriented service delivery. Strategic decisions and those related to actual implementation and enforcement of envisaged changes are addressed with a higher level of detail, thereby making them operational.
- B. Governance models featuring a specialised agency for initiating and coordinating activities and networks yield better results by ensuring successful realisation of digital transformation strategies and help establish a sense of joint ownership across. Centralised key competencies needed at the strategic and operational levels seemingly facilitate the digital transformation over time. This role can be either seen as one focusing on coordination and compliance, such as Denmark's DIGST or equipped with more operational capacities, such as the GDS in the UK. Additionally, appropriate cross-agency processes and service redesign financing models are beneficial as seen in Latvia. More integrated cross-sectoral steering groups, whereby both technology and transformation leaders work hand-in-hand, are observed at the strategic level in both Denmark and the UK. In countries with a higher degree of whole-of-government, at the operational level have observed a more entrenched approach to cross-sectoral cooperation, networking and sharing of good practices, administrative transformation, usability and service design. In most cases, networks and communities are supported or established by those central agencies coordinating digital transformation, as illustrated by both DIGST and GDS.
- C. Countries are found to apply different approaches to coordination and compliance. Denmark relies on formalised coordination mechanisms, while the UK is more community-focused in its approach, with Latvia relying on regulation. Denmark's formalised strategic steering process seems to provide the most sophisticated approach, as it ensures strategic and operational connections, and involves all levels of government. Improved connections with the private sector and citizen communities yielded by an even more integrated approach would strengthen the process further. That said, elements of formalised coordination, expert community networks and regulatory use to facilitate the digital transformation of public sector service delivery is found in all three countries.
- D. In order to facilitate a behavioural change and emphasise the digital service delivery channel for government services, the roll-out of websites and e-Services (i.e. supply) should be complemented by usability and quality requirements for said online service offers. Internet access, digital skills and a widely used eID and a digital signature needs to be in place. Regulatory changes making the online channel mandatory digital on an active opt-out basis, digital-only and coordinated and promoted channel strategies increase the pace of change. The analysis finds that citizens' use of online service



offers is not always directly correlated to the use of the internet or private sector services like e-Banking and e-Commerce. Additional motivational and supportive actions cultivating the “demand” should be applied, including mandatory use or active out-opt use of eService’s, incentives, promotion, assistance and guided service use. While Denmark’s mandatory approach may not always be politically palatable, the Latvian case demonstrates that sector-specific, digital-only strategies can work, especially if they are supported by assisted e-Service provision. Such an approach yields a positive spill-over effect upon other service areas.

- E. In relation to usability and service design approaches, user-friendly, citizen-centric and whole-of-government service delivery can be facilitated by government-wide service design standards. Centralised user insights analysis and process redesign practices covering strategic cross-agency user experiences have to be in place. The development of service design standards and cross-agency coordination in the UK is centrally coordinated by GDS, whereas in Denmark the standards and compliance mechanisms are centrally managed by DIGST but are less hands-on with more decentralised responsibility. In both cases, intergovernmental collaboration is key in establishing the standards and ensuring compliance. For instance, in Denmark, all three levels of government are actively engaged. While DIGST outsources cross-agency user-experience analysis and the GDS have the same capacity in-house, both focus on ensuring compliance with the standard and actively engage with the responsible authorities and their private sector vendors. In Latvia, VRAA combines the Danish and UK approaches through a mix of in-house capacities, life situation descriptions, while the cross-sectoral process analysis is largely outsourced.
- F. Concerning technical aspects, the analysis finds a tendency towards centralisation and unification of service delivery channels, with the use of shared services for more consistent and coordinated user-experiences across different agencies and levels of government. Countries with more entrenched coordination practices, like Denmark and the UK, are more likely to ensure a broader scope of content and service integration across government functions and administrative levels. Denmark has an integrated central, regional and local government information and service delivery practices; the UK has well-integrated central government information and service practices, but limited content from regional and local authorities; in Latvia, integration is mainly focused on central government services.
- G. Current monitoring and performance evaluation practices are mainly focused on measuring the performance of specific service areas or agencies; whole-of-government approaches, however, require the development of government-wide, i.e. cross-agency-level performance and impact measurements. All three countries currently have, or previously had, performance platforms in place to measure public services delivery, including e-Service performance. The service performance platform in the UK, *Latvijas e-indekss* in Latvia (to be replaced with performance platform in 2020) and the digital scorecard in Denmark (discontinued in 2017) are all examples of this. Measuring and exposing performance data enables responsible service providers to assess the efficiency, effectiveness and quality levels of their service portfolio, individual service and delivery channels over time. The operational data can also be aggregated and is essential for policy-makers to make evidence-based and informed strategic decisions. As government transformation becomes increasingly integrated, the need for cross-sectoral measurement system increases: is it then important monitor value creation and efficiency at the level of the government overall; not merely



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per service, per channel or per department alone. Both the UK and Denmark have acknowledged the need to work on improved performance and impact measurement frameworks in their current strategies.



## 9. Policy recommendations

- **Strategy:** a whole-of-government approach should be defined not only as a guiding principle, but it should be detailed in practice and underpinned with specific initiatives. In order to optimise the value generated by investments in digital service production and delivery, mandatory online self-service, elimination of the paper channel and digital-only services can be specified and provided in combination with active opt-out options for specific citizen groups, availability of digital assistance services should be increased and availability of APIs, generalised. eService usability and quality standards, compliance mechanisms and widely available eID are among the prerequisites.
- **Governance:** to ensure strategic and operational connections, strategy steering mechanisms have to be elaborated not only on a strategic level (i.e. strategic councils or steering groups) but on the operational level. This enables the coordination and monitor progresses made on the action plan associated with the strategy. Purpose-made or permanent coordination units tied to strategic tasks should be established: they should consist of a wide selection of stakeholders, up and down the governance chain, as well as inclusive of, private sector and citizen groups, wherever appropriate. Compliance, regular monitoring, reporting and escalation processes have to be initiated as well.
- **Government digital transformation function** performs better, when centralised in dedicated, specialised units, responsible for both strategic and operational level coordination. The separation of strategy, action plan, policy and technology management functions adds additional layers of coordination complexity. Overlapping responsibilities and mandates should, therefore, be avoided, both at single levels of government and between levels of government. Instead, it is beneficial to merge these functions into a single transformation agency equipped with a strong and broader mandate enabling it to work across government functions and administrative levels. As well as coordination initiatives, standardisation, cross-sectoral user-experience analyses, process and service redesign initiatives. The aim should be to ensure successful implementation, facilitate joint ownership and compliance.
- **Measuring:** developing a monitoring methodology to monitor performance help maximise benefit realisation and efficiency, not only for individual services, channels or departments but on an aggregated level. In order to facilitate a whole-of-government approach, and to benefit from better coordination, supportive and motivational cross-agency KPI's should be established; these can also help to safeguard the possibility for agencies to see and expose their contribution, where appropriate.
- **Supportive financing schemes must be put in place** to facilitate cross-agency process integration and whole-of-government approaches in digital transformation projects. In parallel to the sector or agency-based budget allocations, budget allocation for strategic cross-sectoral initiatives could be established. For instance, with the financing of redesign of strategic user-journey analysis, redesign and implementation, where several central agencies and municipalities must cooperate. Such an approach could be motivating for agencies to engage in cross-agency initiatives.



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