

eGovernment Benchmark 2018

Securing eGovernment for all

BACKGROUND REPORT

A study prepared for the European Commission DG Communications Networks, Content & Technology by:











This study was carried out for the European Commission by Capgemini, IDC, Sogeti, and Politecnico di Milano









For more information about this paper, please contact:



European Commission

Directorate General for Communications Networks, Content and Technology

Email: CNECT-BENCHMARK-EGOV@ec.europa.eu

Unit F.4 Digital Economy & Skills

Gianluca Papa, Stefanos Kotoglou – Project Officers for the eGovernment Benchmark Data Collection Unit H.4 – eGovernment and Trust

Gisele Roesems, Costas Kapsouropoulos – Project Officers for the eGovernment Benchmark Report

Project Team

Niels van der Linden – Principal Consultant, Capgemini Project Manager eGovernment Benchmark Email: niels.vander.linden@capgemini.com

Written and reviewed by Dinand Tinholt, Niels van der Linden, Sem Enzerink, Roel Geilleit, Anouschka Groeneveld (Capgemini); Gabriella Cattaneo, Stefania Aguzzi (IDC); Florian Pallaro (Sogeti); Giuliano Noci, Michele Benedetti, Giulia Marchio, Alessandro Salvadori (Politecnico di Milano).

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User centricity

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Albania – Electronic Construction Permit

Albania – Starting and running a business

Austria – Electronic Health Record File

Austria - FinanzOnline

Austria – Justiz 3.0

Bulgaria – National Revenue Agency

Croatia – eCitizen Central state portal

Croatia – OKP Citizen personal mailbox

Cyprus – Grant Scheme Information System

Cyprus - eApplication for Recruitment in the Public Sector

Czech Republic – Citizens Portal

Denmark – Motor Styrelsen

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Finland – Information sorted into life events

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Germany – BayernPortal

Germany – EKONA

Greece – A root-and-branch reformation of the business model of DTC

Greece-Vehicle Arrival Declaration

Hungary – Online Annual Reporting System

Iceland – Change of address

Italy – the Public Service Design Kits

Latvia – Road Traffic Safety Directorate's digital services

Latvia – eParaksts mobile

Latvia – first virtual assistant in public administration UNA

Luxembourg – Transparency

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Poland – Electronic Land and Mortgage Register

Portugal – Social Energy Fare

Romania – State of Play

Romania – Starting a Small Claims Procedure

Serbia – Application for enrollment to Kindergarten

Slovakia – Procedure car registration

Slovakia–Register new address

Slovakia – Providing information on the technical and emission control of the vehicle

Slovakia – Help on Motorway

Spain – Electronic ITV card

Spain – Smart parking and Villanueva de la Serena

Switzerland – eMovingCH

Switzerland – EasyGov

Turkey- National Judiciary Informatics System (UYAP)

Turkey- wwww.türkiye.gov.tr

Transparency

Albania – The electronic seal and the Public Administration Module

Albania – Electronic Construction Permit

Albania – Starting and running a business

Austria - FinanzOnline

Bulgaria – State e-Government agency – Personal data

Croatia – eCitizen Central state portal

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Slovakia – Procedure car registration

Slovakia–Register new address

Slovakia – Providing information on the technical and emission control of the vehicle

Spain – Smart parking and Villanueva de la Serena

Switzerland – EasyGov

Turkey- National Judiciary Informatics System (UYAP)

Turkey- wwww.türkiye.gov.tr

Cross-border mobility

Albania – Starting and running a business

Austria – Electronic Health Record File

Greece – Electronic Application for registration certificate for citizens of EU

Greece-Vehicle Arrival Declaration

Latvia – eParaksts mobile

Luxembourg – eIDAS

Netherlands – Cybersecurity tool

Poland – Biznes.gov.pl

Portugal – Mobile Digital Signature

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Spain – Smart parking and Villanueva de la Serena

Switzerland – EasyGov

Key enablers

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Slovakia– Register new address

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Spain -Cl@ve

Spain – Smart parking and Villanueva de la Serena

Switzerland – EasyGov

Turkey- National Judiciary Informatics System (UYAP)

Turkey- wwww.türkiye.gov.tr

United Kingdom – Gov.uk Verify

Good practices by life event

Regular business operations

Albania – The electronic seal and the Public Administration Module

Albania – Electronic Construction Permit

Albania – Starting and running a business

Austria - FinanzOnline

Bulgaria – National Revenue Agency

Bulgaria – State e-Government agency – Personal data

Bulgaria – State e-Government agency – Key enablers

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Serbia – Application for enrollment to Kindergarten

Slovenia – Central platform for Authentication and e-Signature Service SI-PASS

Switzerland – EasyGov

Turkey- wwww.türkiye.gov.tr

United Kingdom – Gov.uk Verify

Moving

Albania – Electronic Construction Permit

Bulgaria – State e-Government agency – Personal data

Bulgaria – State e-Government agency – Key enablers

Croatia – eCitizen Central state portal

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Switzerland – eMovingCH

United Kingdom – Gov.uk Verify

Owning and driving a car

Albania – The electronic seal and the Public Administration Module

Bulgaria – State e-Government agency – Personal data

Bulgaria – State e-Government agency – Key enablers

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Starting a small claims procedure

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United Kingdom – Gov.uk Verify



Introduction

Introduction

"Digital progress is transforming our societies and economies to the core, challenging the effectiveness of previously developed policies in a broad range of a reas as well as the role and function of the public administration over all. It is our duty to anticipate and manage these challenges to meet the needs and expectations of citizens and businesses."

TallinnMinisterialDeclarationoneGovernment,6October2017

1.1. Evaluating digital progress of the European public sector

The public sector is facing new demands and new expectations, fuelled by a fastdeveloping supply of technologies and tools. Utilising those technologies to their full potential is the key challenge for every government and requires new ways of organising: from optimising user experience to digitising internal processes to exploring new organisational models and partnerships. It increasingly spans national borders and European collaboration on a joint eGovernment agenda is hence crucial. The European countries recognised this challenge and reconfirmed their ambition by signing the Talinn Ministerial Declaration on eGovernment in October 2017: 'the overall vision remains to strive to be open, efficient and inclusive, providing borderless, interoperable, personalised, user-friendly, end-to-end digital public services to all citizens and businesses – at all levels of public administration¹.'

The eGovernment Benchmark is a yearly measurement of eGovernment service delivery in Europe. Initiated by the European Commission in 2003, it continually evolves to remain relevant and provide

policy makers with insights that help them make better decisions. It reports on state-of-play of leading policy principles related to User centricity, Transparency, and the deployment of Key enablers such as the once-only principle. It also looks at cross-border service provision. This report presents the results of the assessments performed in 2016 and 2017 in 34 countries – the European Union Member States, as well as Iceland, Norway, Montenegro, Republic of Serbia, Switzerland, and Turkey – referred to as 'Europe' and 'EU28+' throughout the report.

The results on the state-of-play on eGovernment will represent the baseline against which the progress and effectiveness of measures under the new eGovernment Action Plan 2016-2020² and Talinn Declaration will be assessed. The monitoring of the digital transformation of government is a key element in assessing the progress towards completing the Digital Single Market (henceforth DSM) as well as the pursuit of a more "citizen-centric Europe".

1.2. Who should read the report

The report at hand is the *Background* report, complementing the *Insight report* which summarises the key messages. This report aims to provide a comprehensive and detailed view on the performed measurements. The results on the indicators that compose the framework are presented for each life event, as well as at aggregated level across all life events. This report also includes an extensive description of a benchlearning exercise that has been performed to facilitate and encourage best practices transfer across Member States.

¹ Tallinn Ministerial Declaration on eGovernment, page 3, online available: http://ec.europa.eu/newsroom/document.cfm?doc_id=47559

² European Commission (2016). The EU eGovernment Action Plan 2016-2020. Accelerating the digital transformation of government. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0179

The report is relevant to a broad spectrum of stakeholders as it provides valuable insights into the digital transformation of governments across Europe:

- Government and public administration officials, who are interested in observing the development of eGovernment in their own national context, and benchmark this against other European countries.
- Researchers in the eGovernment field or related areas that are interested in tapping into the rich data source on which the benchmarking exercise is based and gather further insights on eGovernment across Europe. The data of both the background and the insights reports is open, free of charge and provided in a machine-readable data. This includes all life event assessments performed in 2017. The Commission's webpage also includes the data collected in previous measurements in from 2012-2016, as well as the demand-side user survey amongst citizens of 2012.
- Businesses and developers who are providing or are interested in developing eGovernment applications and services to public administrations across Europe. The report provides insights into the life events and assessment dimensions, highlighting the areas that need further improvement.
- interested in observing the state of play as well as eGovernment progress in their country and across Europe. With an increase in cross-border transactions for citizens and business, the insights provided by the benchmark are of particular relevance.

1.3. How to read the report

The present report – called the Background Report – is the extensive benchmark assessment, which aims to deliver an impactful study on eGovernment. This report is complemented by the shorter Insight Report, which present the key findings and policy recommendations. Complementary to these two reports, country factsheets are provided to enable a more focused insights at national level into the results per top-level benchmark and per life event in comparison with the rest of the EU.

The research is completed by the raw data that is publicly available. The graphs presented in this report are considered most relevant to represent the data gathered. The data allows for even more representations. Please consult the Method Paper³ which includes a comprehensive description of the method used (including full description of the questionnaire and life event models for instance).

The Background Report is structured as follows:

- Chapter 2 provides an overview of the measurement, including the policy priorities it addresses and a short description of the methodology⁴;
- Chapter 3 provides the analysis of the top-level benchmarks for the indicators: User Centricity, Transparency, Cross-border Mobility and Key Enablers;
- Chapters 4 to 7 provide the insights for the four life events under scrutiny in this edition: "Regular business operations", "Moving", "Owning and driving a car" and "Starting a small claims procedure";
- Chapter 8 presents the clustering analysis of EU member countries based on the relative indicators, analysing performance of countries that have similar pre-requisites and developing paths.

 $^{3\}quad \text{For the latest version please see: http://ec.europa.eu/newsroom/dae/document.cfm?action=display\&doc_id=17858}$

For a more detailed description of the methodology, please refer to the Method Paper published with the present report.

Measuring eGovernment

2.1. The eGovernment Benchmark builds on EU policy priorities for 2016-2020

With the eGovernment Action Plan 2016-2020, the European Commission aims at undertaking actions along three priority areas⁵:

- Modernisation of public administration with ICT, using Key Enablers.
 The European Commission underlines the importance of the uptake of Key Enablers towards creating digital public services that are fit for the future. Key Enablers such as electronic Identification, electronic Document, Authentic Sources, and Single Sign On facilitate the transformation of public administrations towards lean and usercentric public service providers.
- Enabling Cross-border Mobility with interoperable digital public services. Cross-border public services are considered the backbone for the effective functioning of the EU Single Market, as they facilitate Cross-border Mobility, thus enabling access to markets, boosting competitiveness and attractiveness of the EU as a place to live and invest in.
- Facilitation of digital interaction between citizens/business and administrations towards providing high-quality public services. Increasing interaction and exchange in the design process of high-quality public services also takes a front role in the new Action Plan. The availability of digital public services that are in line with the needs of the users (citizens and businesses) is linked to competitiveness and attractiveness of Europe as location for investments. Greater involvement of end-users in

the design and delivery process is considered to be a key promoter towards this end. In addition, the interaction and exchange via the publishing and re-use facilitation of public services will be pursued as well on this pillar, as it creates further opportunities for knowledge, growth and job creation.

In supporting actions on these dimensions, following principles will be promoted:

Digital by Default:

Public administrations should deliver services digitally (including machine readable information) as the preferred option (while still keeping other channels open for those who are disconnected by choice or necessity). In addition, public services should be delivered through a single contact point or a onestop-shop and via different channels.

Once only principle:

Public administrations should ensure that citizens and businesses supply the same information only once to a public administration. Public administration offices take action if permitted to internally re-use this data, in due respect of data protection rules, so that no additional burden falls on citizens and businesses.

Inclusiveness and accessibility:

Public administrations should design digital public services that are inclusive by default and cater for different needs such as those of the elderly and people with disabilities.

Openness & transparency:

 Public administrations should share information and data between themselves and enable citizens and businesses to access control and correct their own data; enable users

⁵ http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=15268

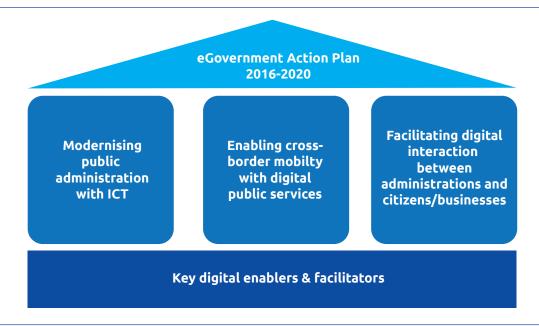


Figure 2.1: eGovernment Action Plan 2016-2020

to monitor administrative processes that involve them; engage with and open up to stakeholders (such as businesses, researchers and non-profit organisations) in the design and delivery of services.

Cross-border by default:

 Public administrations should make relevant digital public services available across borders and prevent further fragmentation to arise, thereby facilitating mobility within the Single Market.

Interoperability by default:

Public services should be designed to work seamlessly across the European Digital Single Market⁶ and across organisational silos, relying on the free movement of data and digital services in the European Union.

Trustworthiness & Security:

All initiatives should go beyond the mere compliance with the legal framework on personal data protection and privacy, and IT security, by integrating those elements in the design phase. These are important pre-conditions for increasing trust in and take-up of digital services.

2.2. The eGovernment Benchmark method

This section shortly describes what is measured and how. The extensive Method Paper provides all details. The benchmarking exercise provides insight into the state of play of eGovernment services in Europe and plays an essential part in enabling the European Union to tackle the current socio-economic challenges in a timely, and more importantly, adequate manner. The benchmarking analysis is used as a comparison tool for analysing processes and performance metrics, against the standard or best practices in a given field. The benchmarking exercise represents a pivotal component of the European Union's Open Method of Coordination (OMC). This tool is used to stimulate mutual learning processes, to perform multilateral surveillance and to contribute to further convergence of participating countries' policies in various policy areas.

The benchmarking includes constructing a well-defined baseline against which the subjects of the study are compared. This

⁶ https://ec.europa.eu/digital-single-market/

will be used to analyse their performance, establish good practices and identify strength areas as well as inadequacies. In the context of public sector innovation, it offers insights into how services can improve in quality and efficiency and can enable governments to provide adequate and timely responses to such inadequacies. Benchmarking is the first step of a continuous bench-learning and improvement cycle.

2.2.1. The measurement framework: four top-level benchmarks

As depicted above, the framework update ensures a more adequate measurement of progress in the main priority areas, in line with the new eGovernment Action Plan: modernisation of public administrations, Cross-border mobility, and facilitation of digital interactions between citizens and administrations. The progress in these areas is measured via four top-level benchmarks, which are comprised of multiple sub-indicators:

- User centricity: indicates the extent to which a service is provided online, its mobile friendliness and its usability (in terms of available online support and feedback mechanisms)
- Transparency: indicates the extent to which governments are transparent about the process of service delivery, the responsibilities and

- performance of public organisations and the personal data processed in public services.
- Cross-border mobility: indicates the extent to which public services users from another European country can use the online services.
- Key enablers: indicates the extent to which technical pre-conditions for eGovernment service provision are in place, such as electronic identification and authentic sources.

2.2.2. The life events under measurement in 2016 and 2017

To measure the state of play of eGovernment, this benchmark uses life events to capture the landscape of public services. This year's measurement selected four life events that cover the most common domains of public services. Each life event is associated with a customer journey that businesses and/or citizens involved in the given life event go through.

Each life event is measured in a biennial cycle (once every two years), allowing countries to follow-up on the results and implement measures to tackle potential inadequacies along the life events.

	2012 + 2014 + 2016 + future even years	2013+2015 + 2017 + future odd years
Business life events	Business start-up	Regular business operations
Citizen life events	Losing and finding a job Studying Family life (as of 2016)	Starting a small claims procedure Moving Owning and driving a car

Figure 2.2: Overview of life events under assessment in 2012 - 2016

2.2.3. Updates in the method of the eGovernment Benchmark since 2016

The method for the current benchmarking exercise was updated in early 2016, in line with the priorities of the new eGovernment Action Plan. In this context, following additions were made:

■ The introduction of a **new life event addressing "Family Life"** that
includes services that are typical for
young families, such as: marriage (or
other partnerships), birth and related
(financial) rights, renovating a house,
and assessing your expected financial
situation at a later age.;

- The evaluation of availability of Key Enablers (eID and eDocuments) in cross-border public service provision as well as assessment of the use for a new Key Enabler – Digital Post;
- The introduction of new questions on Transparency with regard to personal data, complementing the existing questions on the indicator Transparent Government.

Figure 2.3 presents an overview of the method update, in line with the priorities of the eGovernment Action Plan 2016-2020.

Action plan principle	Method update
Facilitating digital interaction with citizens – digital by default, once-only, transparency by default, and crossborder by default.	New life event on 'Family life' that will be assessed for the top-level benchmarks on user centricity, transparency, cross-border mobility and key enablers.
Facilitating digital interaction with citizens – user centricity	Include indicator 'Mobile friendliness' in user centricity benchmark
Facilitating digital interaction with citizens - inclusive by default	Landscape development around Citizen Access Points
Modernising public administrations - Privacy & data protection	Include question that assesses whether citizens can monitor who consulted their personal data and for what purpose
Enabling cross-border mobility - key digital enablers, and cross-border by default	Expand assessment of availability of eID and eDocuments in cross-border services
Key digital enablers	Expand eID assessment and include a new enabler 'Digital Post'
Key digital enablers, once-only, and cross-border by default	Expand qualitative landscaping on (use of) the key enabler Authentic sources

Figure 2.3: Overview of Action Plan Principles and benchmark method update

2.2.4. Method of data collection

The method most used in the benchmark exercise is Mystery Shopping.

A Mystery Shopper is trained and briefed to observe, experience, and measure a given public service process. Mystery Shoppers act as prospective users and follow a detailed, objective evaluation checklist. Mystery Shopping was the method of choice for the assessment of all top-level benchmarks under review this year.

Besides Mystery Shopping, the assessment of 'Mobile friendliness' is being conducted automatically, by using an online and open tool⁷ through which the complete sample (of approximately 2500 URLs) is evaluated.

⁷ https://www.rankwatch.com/tools/mobile-friendly-check.html

The Mystery Shopping exercise at a glance:

- Mystery Shoppers are users of government services themselves, which provides a certain level of
 validity and involvement into the measurement: how they experience the eGovernment services is
 a valid real-life user experience.
- All Mystery Shoppers are briefed and clearly instructed in order to minimise subjectivity. One way of doing this is to provide them with persona descriptions that provide guidance when performing the assessment
- In principle, every country is evaluated by two Mystery Shoppers and their results are compared. Any inconsistencies are re-evaluated by the research team in order to achieve a high level of reliability. For Cross Border Mobility, all participating countries are assessed by two Mystery Shoppers from another country.
- Every Mystery Shopper is a country national owning a national eID (if any).
- The Mystery Shopper's 'journey' is time-boxed, i.e. each Mystery Shopper has limited time to assess one life event. This implies that when a particular feature could not be found within reasonable time, it is answered negatively. This does not mean per se that the particular feature is not available online it means that it apparently was too difficult to find intuitively, or with too many clicks. This makes it very likely that regular citizens or entrepreneurs will not use it, nor will they find it.
- After completion of the Mystery Shopping exercise, results are sent for validation to the Member States. This is an intense collaborative process with the participating countries representatives. Member States are included at the start and at the end of the evaluation: at the start in order to validate the sample and key characteristics of the services under assessment; at the end to validate the research results in collaboration with the responsible organisations in a country and to correct potential obvious erroneous findings.

Part one: four-sided eGovernment progress in Europe

Synthesis of top-level benchmarks

This chapter presents the synthesis of the top-level benchmark results and analyses progress made by public administrations across Europe. It highlights eGovernment successes for each of the four benchmarks and pinpoints areas with room for improvement. The chapter is structured as follows: section 3.1 presents the current eGovernment state-of-play in Europe from a top-level perspective. Subsequently, the four top-level benchmarks are covered in more detail in sections 3.2 (User centricity), 3.3 (Transparency), 3.4 (Cross-border mobility) and 3.5 (Key enablers). Section 3.6 links the eGovernment results with the Digital Economy and Society Index (DESI).

3.1. Overviewing the top-level benchmarks results

This study measures eGovernment performance based on four top-level benchmarks: User centricity, Transparency, Cross-border mobility and Key enablers. The biennial 2016 and 2017 averages illustrate diverse performance on the top-level benchmarks. Whereas User centricity is highly developed (biennial average of 82%), many opportunities are still apparent for the three other benchmarks: Transparency (biennial average of 59%), Key enablers (biennial average of 54%) and Cross-border mobility (biennial average of 54%).

Key Insights

- User centricity reaches a 2016 and 2017 European average of 82%, exceeding the Transparency, Cross-border mobility and Key enablers side of public services (biennial averages of 59%, 54% and 54% respectively).
- Almost nine out of ten services support users online, with for instance online chats and feedback channels (biennial average of 88%).
- The average online availability maturity score stands at 83%. It is based on four ways illustrating how services in a life event are made available: the service is automated (4% of all evaluated services), it is available online (62%, either through a portal or directly), information on the service is available (32%, either through a portal or online), (information about) the service is not online available (2%; 'offline').
- Six out of ten public services are mobile friendly (biennial average of 62%).
- Unpromisingly, 18 to 27 countries lack measures to inform users on whether and how personal data has been consulted (depending on the life event).
- Cross-border public services are more often available online for businesses than for citizens (biennial averages of 72% versus 59%).
- eDocuments are the most commonly used key enabler (biennial average of 63%), yet half of the public services integrate eID solutions, authentic sources and digital post systems (biennial averages of 51%, 53%, 52% correspondingly).

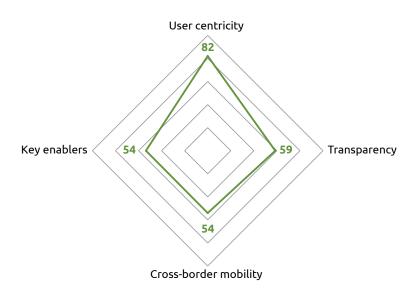


Figure 3.1: Top-level benchmarks scores (biennial 2016 and 2017 average)

Figure 3.1 offers an overview of the biennial 2016 and 2017 results. These scores capture the average of all life events, of which four were measured in 2016 and four were measured in 2017. The 2016 life events involve: "Business start-up" (business life event), "Losing and finding a job", "Studying", and "Family life" (citizen life events). The 2017 life events consist of: "Regular business operations" (business life event), "Moving", "Owning and driving a car", and "Starting a small claims procedure" (citizen life events).

Relating to the User centricity top-level benchmark, public administrations focus more and more on user preferences. European countries reach an average score of 82% on User centricity (based on 2016+2017 biennial scores). Of its sub-indicators, especially the Usability indicator is strong (biennial average of

88%), followed by high levels of Online availability (biennial average of 83%). This underlies the continued priority of public organisations to digitalise public services. Furthermore, countries seek ways to improve the Mobile friendliness of websites across the eight life events. With six out of ten public services being compatible with mobile devices, this component is maturing, but has not yet reached the same level as the other User centricity indicators (biennial average of 62%). Hence, enabling eGovernment service delivery on multiple devices remains an optimisation goal worth striving for.

For the Transparency top-level benchmark, steps in the right direction are taken but remain desirable, with a biennial average of 59%. Users would benefit from more open governmental

communication, especially when it comes to managing the expectations of citizens and businesses during service delivery (biennial score of 52%) and clarifying the use of personal data by public authorities (biennial score of 54%).

Whereas the User centricity benchmark concerns services aimed at national citizens or businesses, the Cross-border mobility benchmark measures eGovernment quality from the perspective of foreign individuals and businesses. Mirroring User centricity within countries, the Cross-border mobility benchmark shows that governments accomplish high levels of usability and Online availability of services, for businesses (and to a lesser extent for citizens) outside the country. This brings Europe closer to realising a Digital Single Market. Still, the availability of cross-border key enabling technologies such as eIDs and eDocuments can be extended (biennial averages of 12% and 24% respectively).

The Key enablers top-level benchmark teaches that public administrations laid the foundations for smart digital solutions, ready to be further build upon. The overall biennial average of 54% is driven by public organisations increasingly offering eDocument solutions (biennial average of 63%). At the same time eID and Digital post solutions lower overall

performance (both biennial averages of 51%). Meaning, citizens and businesses can be equipped with public services that more broadly use electronic identification systems and communication via digital mailboxes.

Overviewing the top-level benchmarks from the perspective specific life events indicates that businesses encounter higher levels of User centricity, Transparency, Cross-border mobility and Key enablers than citizens. Figure 3.2 exemplifies that most advanced eGovernment services were measured in the "Business start-up" (71%, 2017) and "Regular business operations" (69%, 2016) life events, followed by the life event of "Moving" (67%, 2017), "Losing and finding a job" (66%, 2016), "Studying" (64%, 2016), "Owning and driving a car" (55%, 2017), "Family life" (53%, 2016), and "Starting a small claims procedure" (51%, 2017).

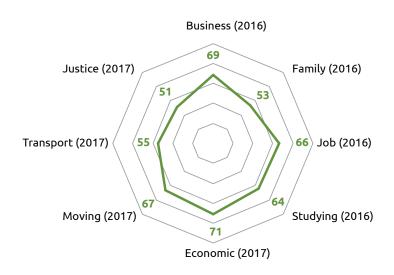


Figure 3.2: Average scores for the top-level benchmarks (per 2016 and 2017 life event)

When looking at the performances of individual countries, Malta, Estonia, Austria, Latvia and Denmark excelled across the 2016 and 2017 life events. As also shown in Figure 3.3 and Figure 3.4, their digital service provision leads Europe's eGovernment. Encompassing the eight life events, Lithuania, Norway, the Netherlands, Finland and Sweden demonstrate strong digital performance as well.

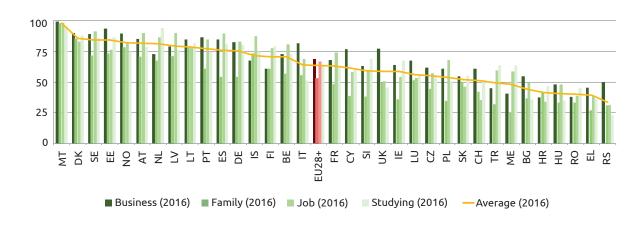


Figure 3.3: Country ranking on the average results for the top-level benchmarks (per 2016 life event)

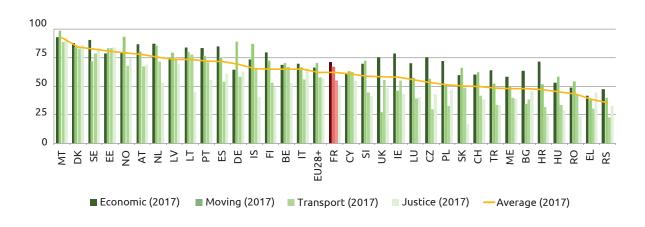


Figure 3.4: Country ranking on the average results for the top-level benchmarks (per 2017 life event)

With the overall picture of the four top-level benchmarks in mind, the next sections take a closer look at each benchmark: User centricity, Transparency, Cross-border mobility, and Key enablers. This elaboration allows for identifying well-developed eGovernment components, as well as defining potential areas to be improved.

3.2. User centricity

Providing eGovernment services builds upon the notion of serving citizens and businesses in the most optimal way. With the top-level benchmark User centricity, the eGovernment exercise measures the extent to which public services meet users' expectations across Europe. The eGovernment assessment contains three indicators, measuring the extent to which Government services: are available online, meet usability standards (offering support, help and feedback functionalities online), and are mobile friendly.

As shown in the overview of Figure 3.5, services in the life events of "Business start-up" (94%, 2017), "Moving" (88%, 2017) and "Regular business operations" (87%, 2016) are most widely available online. The Usability indicator shows that almost nine out of ten services (biennial average of 88%) provide users with online support, such as online chats and feedback functionalities. The increase of mobile device usage demands continuous adaption from public administrations to make sure services are compatible with multiple devices. Currently, the Mobile friendliness biennial average of 62% hints at improvements still being beneficial. When public organisations offer their services online and mobile friendly, they enable citizens and businesses to use them anytime and anywhere.

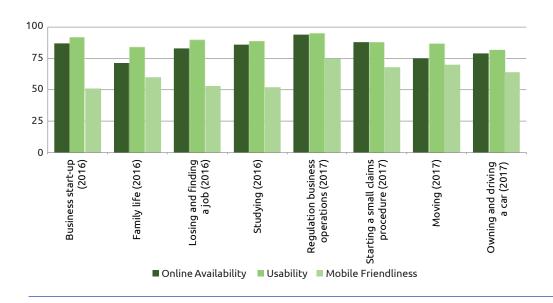


Figure 3.5: User centricity scores (per 2016 and 2017 life event)

3.2.1. Online availability of services

Elaborating on the general findings from the previous section, this paragraph describes how services are offered by public institutions. Six types of Online availability are distinguished: automatically, online (through a portal or not), information is provided (through a portal or not) without the actual service or the service has no online presence. Public administrations may provide services in an automated way. This means users do not have to initiate the service. In other cases, services are available online via a website portal. Moreover, service providers may display information (next to the service) on a website portal. In some occasions services are available online or information about the services is online, though not through a central domain portal, but for instance on a local government website.

Referring to Figure 3.6, a service is either online in five different ways or offline, creating the following categorisation:

- Automated services (dark green).
- Fully online services, accessible via a portal website (medium green),
- Fully online services, not accessible via a portal website (light blue).
- Information online, accessible via a portal website (yellow).
- Information online, not accessible via a portal website (orange).
- Service not provided online, service is offline (red).

Looking at the 2016 and 2017 biennial average, it stands out that 66% of the services were fully available online: 4% of all services were fully automated (dark green bar), 61% of services were online through a portal (light green bar) and 1% of the services were online, though not through a portal (blue bar). For those services not being online, relevant information on the service was available for 32% of the services (28% via the portal as indicated by the yellow bar and 4% via other websites as indicated by the orange bar). This shows that even when a service is not offered fully online, public administrations still inform citizens and businesses on the service details and procedures. Importantly, just 2% of the

services within the eight life events, within all countries, was only available offline (red bar).

Malta, Portugal and Austria provide more than 90% of their services online. From the EU28+ countries, Austria, Estonia, Cyprus and Portugal deliver over 10% of their services automatically. Public administrations ensure that these services are being provided, for instance whenever another related service is requested (e.g. citizens automatically receive child allowance when they register its birth). It is noteworthy that on average only 1% of the services is being provided via other websites than the main portal websites of governmental organisations, with a

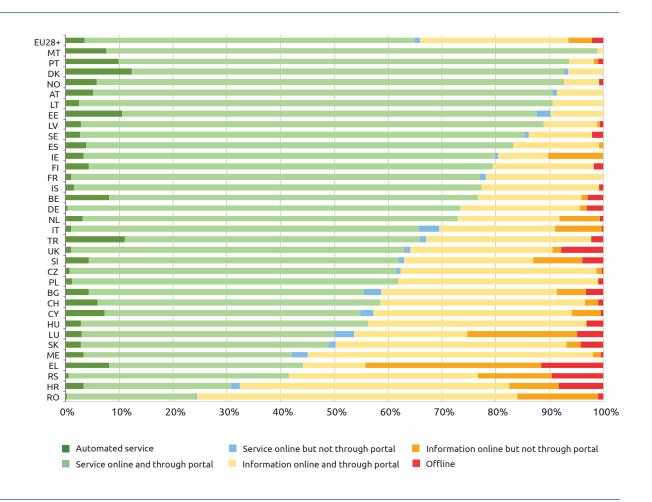


Figure 3.6: Online availability of public services (biennial 2016 and 2017 average per country)

maximum of 4% in Hungary and Italy. This underscores that countries recognise the benefits of portals functioning as a onestop-shop; providing services and navigating users. In addition, eight countries no longer provide any of the measured services completely offline. From the other 26 countries having a proportion of services available via a sole offline channel, 17 countries reduced this number to less than 5% of the assessed services.

When specifying the Online availability of services across different governmental levels, differences between national, regional and local levels catch the eye. Figure 3.7 depicts the biennial average scores for services provided on the national, regional and local administrative level. It should be noted in this context that the sample of local services in some countries is very small.

What is the pivotal role of generic government portals?

Where to start your search for information and service provision when looking for a public service? Rather than looking for specific service websites, one might start with looking at portal websites like www.gouvernement.fr and www.gov.uk. As indicated by Figure 3.6, 61% of public services is available online through a domain portal website, whereas 1% of the services is available online through service specific websites. This hints at the usefulness of government portals in offering services and guiding citizens and business towards the right service providers. Portals thus offer a single source for users that are about to request a service or want to find relevant information.

Besides the Online availability of services via portals, the user centricity of portal websites is further strengthened by its Mobile friendliness. Whereas half of the service specific websites are mobile friendly (69% for the 2017 life events), generic portals are usable from mobile devices in six out of ten cases (85 for the 2017 life events). This underlines again the usefulness of overarching portal websites in providing user-centric content and accessible services.

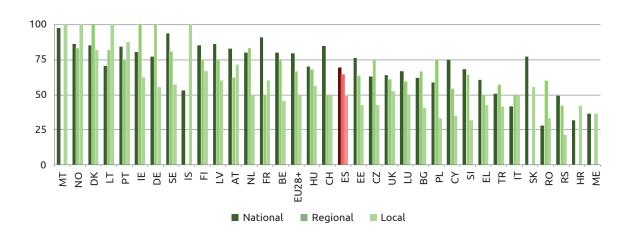


Figure 3.7: Online availability of public services at national, regional and local level (country biennial 2016 and 2017 average)

In general, national services are more often available online (69%) than regional (65%) and local ones (49%). Given the varying governmental structures of European countries, the Online availability of services across administrative levels varies among countries. In six countries, local services reach the highest Online availability of the three govern-

mental levels (Malta, Norway, Iceland, Latvia, Cyprus and Serbia). In nine other countries, regionally provided services have the highest Online availability (Denmark, Sweden, Ireland, the Netherlands, Slovenia, Hungary, Luxembourg, Slovakia and Croatia).

Finland – Information sorted into life events

Top-level benchmark

User centricity

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure.

1. Good practice description

The Suomi.fi web service provides a single point of access to eGovernment services, citizens own information and electronic messages. The portal can be accessed using all terminal devices (computer, tablet, mobile). Information is sorted into life events and practical instructions and resources help the user move on the service path independently. Access to the services as well as information on the service are available. Information on the service includes details on:

- Who the service is intended for
- Who is responsible for the service and who provides it
- Where and how the service can be obtained

2. Benefits

- Information on services can easily be found for citizens and businesses.
- Services can easily be obtained.
- Single point of access for eGovernment services, personal information and electronic messages.

3. Key success factors

- Information sorted into life events
- Button to see services that can be obtained for each life event
- Available for both citizens and businesses.

4. More information

More information can be found at: https://www.suomi.fi/about-suomifi-web service

Good practice 1. Finland

3.2.2. Usability of services

Alike the Online availability indicator, Usability of services is well-developed in Europe (being the second indicator of the User centricity benchmark). When citizens and businesses seek for more service information or have difficulties requesting a service, public organisations need sufficient support channels in place. Overall, European public administrations seem to have embraced the value of providing interaction possibilities with their users and have made efforts towards this end, as visualised in Figure 3.8.

For the 2016 and 2017 measured life events, all Usability sub-indicators have been relatively successfully met. In other words, public administrations have been

able to implement the mechanisms to make their service more usable. In particular: multi-channel contact options, the provision of contact details and answers to the most Frequently Asked Questions (FAOs) are available for almost all services (between 90% and 100%). Even for less offered interaction modes, still three out of four websites for instance include a complaint procedure (74%, 2016 life events) and a chat functionality (75%, 2017 life events). In the light of evolving chatbots and rising user expectations, public administrations might seek ways to upgrade these usability measures to meet user demands and resolve complaints.

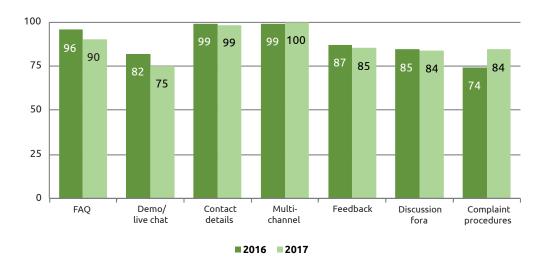


Figure 3.8: Availability of online support (2016 and 2017 averages)

3.2.3. Mobile friendliness of services per life event

Mobile devices have become an indispensable part of today's (digital) society, impacting eGovernment solutions. To serve users in an optimal way, public administrations need to provide services that are accessible from any end device. This brings online information and online transactions at user's fingertips. Figure 3.9 pinpoints the average level of Mobile friendliness of public portal websites in Europe, both for the 2016 and 2017

measured life events. With a biennial average of 62% (54% for the 2016 life events and 69% of the 2017 life events), six out of ten services are compatible with mobile devices. Consequently, it is still worth improving Mobile friendliness of public services. Depending on the life events, the United Kingdom, Denmark, the Netherlands, Iceland, Malta, Sweden, Finland, France, Belgium set an example for providing mobile-friendly online services.

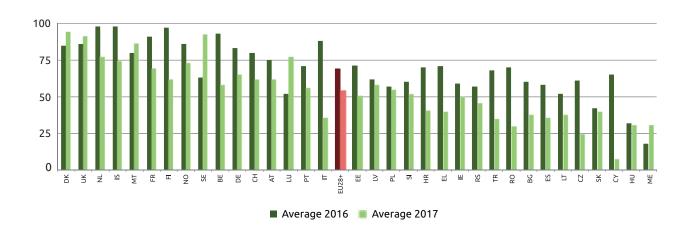


Figure 3.9: Mobile friendliness (country average per 2016 and 2017 life events)

Malta - Mobile Government strategy 2017-2018

Top-level benchmark

User centricity

Life event

Moving, Owning and driving a car, Starting a small claims procedure and Regular business operations

1. Good practice description

Malta has introduced the Mobile Government strategy 2017-2018, aiming to empower citizens by making public services available on mobile devices. This will allow secure 24x7 interactions with the government. mServices will be introduced, providing more flexible and personalised services to citizens when and where needed. Since mServices will be fast and convenient an increase in the use electronic public services is expected. Furthermore, the increased in convenience and speed with which services can be obtained will lead to greater client satisfaction and a better availability of public sector information.

2. Benefits

- Faster and more convenient access to government services.
- Increase in quality, efficiency and transparency of public services.
- Reduced Public Administration operational costs.
- Higher uptake of electronic services.

3. Key success factors

- Increase take up through promotional campaigns.
- Improved mServices quality using focus groups and training to various public administration officers.
- Business Process Reengineering and Standard Operating Procedures to guarantee efficiency in the design of mServices as well as ensure that all necessary support mechanisms and procedures are in place once the online service is implemented.
- The adoption of a standard, holistic approach towards design to provide a seamless user experience across all Government mServices.

4. More information

More information can be found at: https://mita.gov.mt/mobilegov

Good practice 2. Malta

3.2.4. Mandatory online services

Some countries decided to urge citizens and business to use specific services digitally only, by making the digital service channel mandatory. On one hand, such policies increase digital service provision and may foster uptake of various eGovernment solutions and save costs for maintaining non-digital channels. On the other hand, it may not match the needs and preferences of specific groups of citizens. For reflective purposes, this eGovernment Benchmark landscapes the extent to which countries make it mandatory for users to use online public service channels. Importantly, this element does not constitute any of the benchmark scores.

The 2016 and 2017 measured life events reveal that mandatory online services are not widely enforced. When it comes to citizen related services, only the "Studying" life event has six countries that provide three or more services solely digitally. Mandatory online services are more common for business related services. From the 34 countries, 24 countries provide one or more "Regular business operations" services online only, and 8 countries do the same for "Business" start-up" services. It thus seems that public administrations are particularly hesitant to oblige digital channels in citizen related services, while exclusively digital services for businesses seem to slowly become status quo.

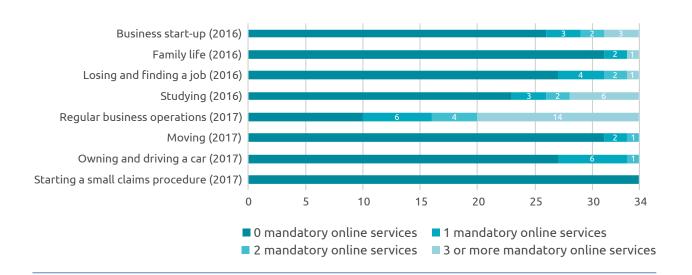


Figure 3.10: Number of countries per life event with mandatory online services

3.3. Transparency

Governmental transparency promotes efficiency, accountability and trust in public sector organisations. Moreover, transparency measures fit increasing demands and expectations of citizens and businesses across Europe; users want to understand how services operate. They want to be informed about processing times, public administrations' mission and achievements, and the use and consultation of personal data. The top-level benchmark Transparency consists of three indicators:

- 1. Transparency of service delivery:
 assesses the extent to which public
 administrations inform users about
 the public service itself, setting expectations on timeliness, process and
 delivery for citizens and entrepreneurs
 from the moment a user request a
 service until the service is delivered.
- 2. Transparency of public organisations: assesses the extent to which public administrations publish information about their organisations (e.g. finance, organisational structure and responsibilities), and about their activities (e.g. the decision-making processes and regulations). Opening governmental organisations enables users to anticipate and respond to decisions and hold policy makers responsible for the consequences that these decisions involve. As a result, policy makers' accountability and fiscal responsibility can increase, minimising the risk of fraud and corruption.

3. Transparency of personal data:

assesses the extent to which public administrations proactively inform users about how, when, and by whom personal data of users is being processed. Citizens call for easy electronic access to their personal data. It increases the legitimacy and security of data processing and improves the quality and accuracy of the personal data stored. Keeping users in control of sensitive data is vital to maintain trust between citizens and government. Besides national legislation, accurate and integer use of personal data is for instance safeguarded by Regulation (EU) 2016/6798, known as the General Data Protection Regulation (GDPR).

⁸ https://eur-lex.europa.eu/legal-content/En/ALL/?uri=CELEX%3A32016R0679

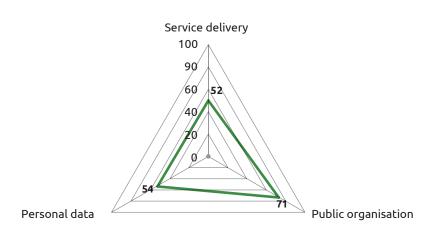


Figure 3.11: Transparency of service delivery, public organisations and personal data (biennial 2016 and 2017 average)

Figure 3.11 depicts the biennial 2016 and 2017 average scores for the three sub-indicators of the Transparency benchmark. Transparency related to public organisations is most advanced (biennial average of 71%). Public sector websites clarify the ways public administrations are running their activities. Less matured, about half of the public services has implemented transparency measures related to personal data and transparency on service delivery (biennial averages of 54% and 52%). Half of the services would

thus still benefit from more information on how personal information is being processed, as well as more openness on delivery procedures and processing times. Creating the right user expectations and effectuating legislation such as the General Data Protection Regulation will fulfil and improve these transparency duties.

Figure 3.12 zooms in on the Transparency of service delivery indicator. It reveals that public organisations particularly strug-

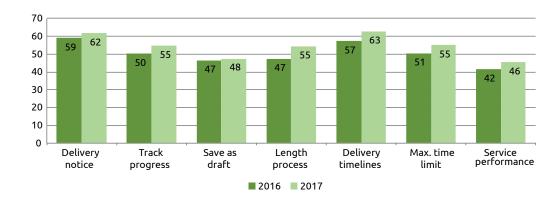


Figure 3.12: Transparency of service delivery (sub-indicator average per 2016 and 2017 life events)

gle to inform users service performance, such as policy goals being reached, and service requests being processed (average scores of 42% and 46% for the 2016 and 2017 measured life events respectively). Neither have public organisations embraced the feature to save draft versions of service application forms, allowing users to start and finish service requests in a flexible manner (average scores of 47% and 48% for the 2016 and 2017 measured life events).

From the three Transparency benchmark pillars, highest results have been achieved on the Transparency of public organisations indicator. For both the 2016 and 2017 measured life events, public organisations managed to publish information concerning their mission and responsibilities (averages of 98% and 99% respectively) and how users can request additional information (97% in both 2016 and 2017). Furthermore, citizens are provided with information on organisational structures (95% and 98% for 2016 and 2017) and relevant legislation to the public services provided by the public organisation (95% and 97% respectively). Bringing the transparency of public administration to full swing would require public organisations to be more open on service performances and citizen engagement. For example: more than half of the public administrations missed the opportunity to publish external reports on service quality and metrics on user's satisfaction, as well as to provide information on ways the organisation monitors its performance and explains citizens on participation possibilities (with averages below 50% for both series of 2016 and 2017 life events).

Diving deeper into the Transparency of personal data indicator clarifies that citizens are being notified in 71% of the occasions of incorrect data (both for the 2016 and 2017 life events) and can modify data in two-thirds of the instances (67% and 66% for the 2016 and 2017 life events respectively). Slightly lower scores were measured for accessing personal data online and public organisations offering a complaint procedure aimed at solving personal data related issues specifically. Based on the 2016 and 2017 measured indicators, monitoring how personal data is being processed is most concerning.

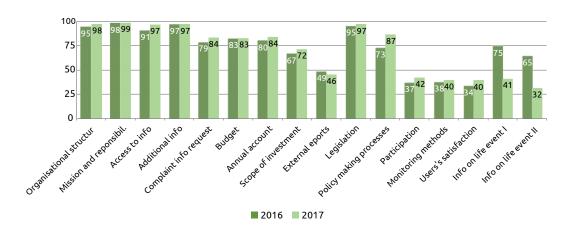


Figure 3.13: Transparency of public organisations (sub-indicator average per 2016 and 2017 life events)

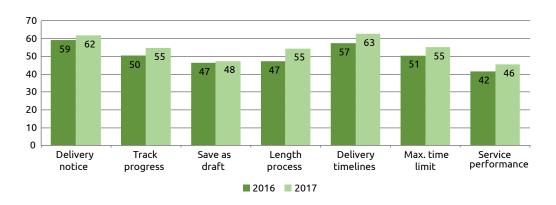


Figure 3.14: Transparency of service delivery (sub-indicator average per 2016 and 2017 life events)

Less than one out of five public services explain citizens how personal data is being used (17% for the 2016 life events, 11% for the 2017 life events).

The scores for the last sub-indicator are worrisome, since citizens seem to receive limited information on which governmental bodies consult and process their data and why. To strengthen this specific transparency aspect and boost overall levels of transparency of personal data, a closer look into monitoring personal data is taken. The sub-indicator on monitoring personal data involves five maturity stages:

- Maturity stage 0: it is not possible to monitor who consulted your personal data and for what purpose.
- Maturity stage 1: you can only monitor whether your data has been consulted.
- Maturity stage 2: you can monitor whether and when your data has been consulted.
- Maturity stage 3: you can monitor whether and when your data has been consulted and who has consulted the data.
- Maturity stage 4: you can monitor whether and when your data has been consulted and who has consulted the data for what purpose.

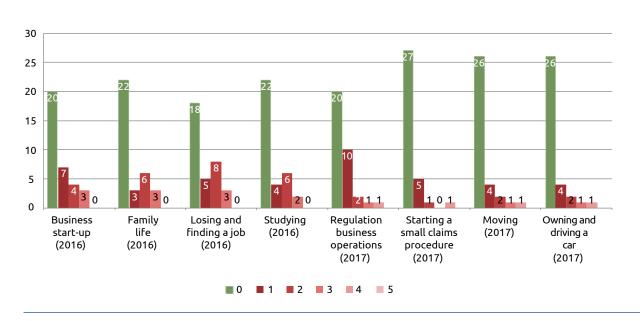


Figure 3.15: Number of countries per personal data maturity stages (per 2016 and 2017 life events)

Depending on the maturity level of the service, citizens either have no possibilities to monitor how public organisations process personal data or are fully informed on personal data processing. Figure 3.15 specifies how many European countries reached the maturity stages 0, 1, 2, 3, or 4 for each of the 2016 and 2017 life events. Noteworthy, the highest maturity level of personal data monitoring is only reached by a single country in three out of eight life events. With ample room for improvement, 18 to 27 countries (depending on the life event) have not yet implemented any measures to inform users on whether and how personal data has been consulted. As a first step, public organisations could clarify whether

personal data is part of a service and when this data is being used. Prerequisite to start these initial activities, public administrations may need to map the types of personal data being collected at all. This turns transparency measures and those concerning personal data in particular into default elements embedded in the early stages of public service development and design.

Estonia – Eesti.ee Personal Data Service

Shared information across public administration

Top-level benchmark

Transparency

Life event

Family life, Losing and finding a job

1. Good practice description

Estonian citizens can view who has used their personal data and when, straight from the Eesti.ee portal. Queries from the Population Register and the eHealth Information System are included in such a way that request by institutions show up within max a day of when the request was made. These databases contain information on births, deaths, marriages, divorces, residence changes and the recipes the citizens have received.

2. Benefits

- Clear portal where citizens can view their own information.
- Overview of when institutions as municipalities, state, private sector, physicians or pharmacies access their data.

3. Key success factors

- Fully electronic, centralized databases accessible by institutions and citizens.
- Enforcement of the Personal Data Protection Act, the Public Information Act and the Electronic Communication Act by the Estonian Data Protection Inspectorate.

4. More information

More information can be found at: https://www.eesti.ee/est/teenused/kodanik/riik_ja_kodanik/rr_aj_teenus

Good practice 3. Estonia

3.4. Cross-border mobility

Cross-border mobility is one of the main objectives of the EU eGovernment Action Plan 2016-2020 and represents an important milestone towards realising a Digital Single Market. This contributes to citizens conveniently working, living and studying in other European countries, whereas entrepreneurs can easily start and invest in businesses abroad. To realise full crossborder possibilities, the use of key enablers such as solutions for electronic identification (eIDs) and electronic documents (eDocuments), are needed to create safe and seamless cross-border services. Therefore, the top-level benchmark Cross-border mobility measures the extent to which public services that are aimed at foreign citizens and businesses are available online, usable, and implement eID and eDocument capabilities.

Figure 3.16 visualises the differences between services for citizens and those for businesses when it comes to the Online availability of services, the usability and the use of eIDs and eDocuments. Based on biennial 2016 and 2017 averages, three out of four business related cross-border services are online available and usable (72% and 76% respectively).

The Online availability and usability of services targeted at citizens is less mature (with biennial averages of 59% and 64% for these two indicators). This signals the relevance of keeping foreign citizens in mind when designing public services.

Less encouraging is the unused potential of the two key enabling technologies, eIDs and eDocuments, in removing barriers for citizens from other European countries to use a country's services. Citizens can only use proper electronic identification for 6% of the services encountered abroad, versus 18% of the business services. For twice as many services, citizens and businesses can use electronic documents to complete a service request (13% and 35% correspondingly).

In this context, further implementation of electronic identification and trust services for electronic transactions are desirable. The measures as envisioned in the eIDAS Regulation are expected to bring European governments closer to reach higher levels of eID and eDocument solutions. Currently, the low adoption of these key enablers impedes services from becoming fully online across the safe operations of national borders.

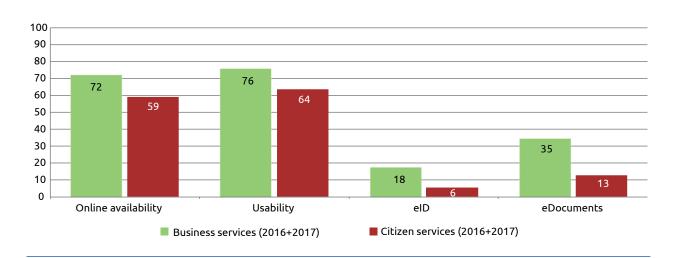


Figure 3.16: Cross-border Online availability, usability, eIDs and eDocuments (business and citizen services average per 2016 and 2017 life event)

A comparison between the Online availability of national with cross-border services, marks that countries still prioritise digitalisation of national services. For most countries, efforts are needed to bridge the gap between the Online availability of national and cross-border services. As shown in Figure 3.17, Estonia, Luxembourg, Latvia, the Netherlands and Norway are relatively close to offer the same percentage of domestic and nondomestic services online (differences of 10% or less). Interestingly, Malta, Sweden, Ireland and the United Kingdom managed to digitalise services particularly for foreigners. In these countries the Online availability of cross-border services exceeds the online provision of national services, embracing the mobility of citizens and businesses living and operating outside national borders.

3.5 Key enablers

As articulated in the eGovernment Action Plan 2016-2020, the provision of faster, more convenient and higher quality services for citizens and businesses relies on the adoption of key enablers. These digital building blocks can increase user centricity of services. In line with this, the top-level benchmark Key enablers assesses the availability of such facilitating technology in public service provision. Four specific key enablers are being evaluated in the eGovernment Benchmark:

eID (electronic identification):

a government-issued, electronic identification solution to determine if the user is who he claims to be. Using eID enables online transactions, saves time and reduces costs for all actors involved.

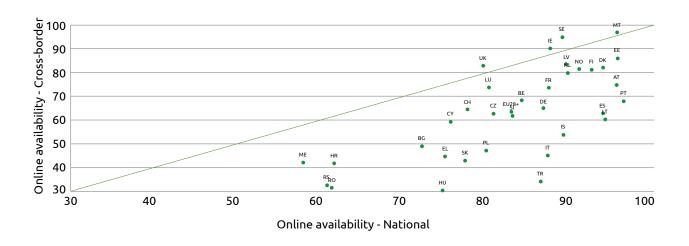


Figure 3.17: National Online availability compared to cross-border Online availability (biennial 2016 and 2017 average per country)

- eDocuments (electronic documents): an electronic document, such as an application form or requested file to submit, which reduces offline paper processes and allows citizens and businesses to send authenticated documents online.
- Authentic sources: base registries used by governments to automatically validate or fetch data relating to citizens or businesses. It facilitates pre-filling of online forms and the implementation of the 'once-only principle', which implies that governments reuse data to deliver services automatically.
- **Digital post:** personal mailboxes that allow citizens to receive service notifications and information in a digital format and help reduce paper mailing. Having digital post solutions in place, opens the way for governments to communicate electronically-only with citizens and entrepreneurs.

Observing the biennial 2016 and 2017 life event scores in Figure 3.18, the use of eDocuments is most common (available for 61% of the 2016 life event services and 65% for those of 2017). This means

that citizens and businesses can send in authenticated documents online. The other key enabling technologies are less frequently deployed. For instance, only half of the public services integrate eID solutions for swift online identification (52% for the 2016 life events and 50% for the 2017 life events). A large step forward would ease identification processes and increases service flexibility, since users can identify themselves online whenever they want instead of being restricted to opening hours of service providers' offices. Also, the use of authentic sources could be intensified, given the 47% and 59% scores for the 2016 and 2017 life events. Further reuse of information already collected and processed by public administrations would save citizens and businesses time to complete a service and reduces administrative errors. More effective and efficient government communication could be accomplished by more extensive use of digital post solutions. Today's public services are for 50% to 53% supported by digital post systems (related to the 2016 and 2017 life event scores). It is thus worth identifying ways to implement new digital post systems or broaden the scope of existing ones.

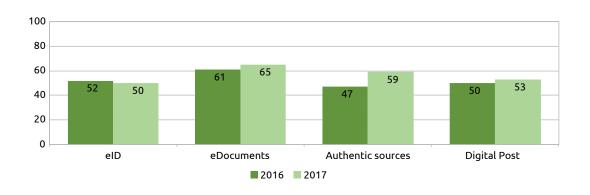


Figure 3.18: Availability of the Key enablers (average per 2016 and 2017 life events)

Italy - pagoPA

Top-level benchmark

Key enablers

1. Good practice description

PagoPA is the centralized node for public payments. Citizens are able to pay taxes, university fees and school meals, fines and TARI (the municipal waste tax), plus many other services provided by the public administration, with a credit and debit card – just like on any e-commerce site. Citizens are able to save the payment preferences so that payments can be made quickly, with a single click. PagoPA allows PayPal, Satispay, as well as Masterpass and Jiffy (Bancomat Pay) to offer their services.

2. Benefits

- As of June 30, 2018, there were about 10.5 million transactions the total value of which was equal to €1.5 billion, with an increase of 240% and 358% respectively, as compared to the same period of the previous year.
- Over the last two trimesters of 2018, 92% of the total value of the previous 36 months transactions was achieved.
- On the average, the platform processes about 1 million transactions per month for a value of more than € 150 million.

3. Key success factors

- It allows public administrations to manage payments in a centralized way;
- It offers automatic reconciliation of collections;
- It reduces transaction and process costs: settlement in D+1 (working day following payment) directly from treasury accounts.

4. More information

More information can be found at: https://teamdigitale.governo.it/en/projects/digital-payments.htm https://teamdigitale.governo.it/en/projects/digital-payments.htm#the-data

Good practice 4. Italy

United Kingdom – GOV.UK Verify

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

GOV.UK Verify is a secure way to prove who you are online. GOV.UK Verify gives access to 16 government services, with more in the process of connecting.

2. Benefits

- When you use GOV.UK Verify, you don't need to prove your identity in person or wait for something to arrive in the post. It makes it quick and easy to access government services.
- It is safe, as information is not stored in one place and all the certified companies have to meet government and international standards for security and data protection.
- Over 2.8 million people have created a GOV.UK Verify account to perform over 7.5 million secure transactions with government.

3. Key success factors

 Public-private collaboration: when you use GOV.UK Verify to access a government service, you choose from a list of companies that the government has approved to verify your identity.

4. More information

More information can be found at: https://www.gov.uk/performance/govuk-verify

Good practice 5. United Kingdom

3.6. Digital Economy and Society Index (DESI)

The insights and data gathered during the eGovernment Benchmark are widely used, among others by the Digital Economy and Society Index (DESI)9 of the European Commission. The DESI consists of five dimensions; Connectivity, Human Capital, Use of Internet Services, Integration of Digital technology and Digital Public services. The Digital Public Services dimension is concerned with eGovernment and eHealth and contains six indicators. Three of the Digital Public Services indicators are derived from the eGovernment benchmark report; the DESI online service completion indicator (eGovernment benchmark online availability indicator), the DESI eGovernment services for business indicator (eGovernment benchmark cross border online availability indicator), and the DESI pre-filled forms indicator (eGovernment benchmark authentic sources indicator). The DESI indicators use only the information on the basic services and not the extended services of the eGovernment benchmark. Basic services are transactional (submitting corporate taxes) whereas extended services are informational (obtain information on required working conditions for employees). For each of the indicators used by the DESI we provide a short overview.

The DESI online service completion indicator is based on the eGovernment benchmark *online availability indicator*, which is measured as sub-indicator of the eGovernment User centricity benchmark and captures the extent to which the steps necessary for obtaining a public service can be taken online. The DESI indicator only considers the EU28, however the eGovernment benchmark covers more countries than the EU28, therefore both the EU28 and the EU28+ 2016-2017 biennial averages are presented in figure 3.19.

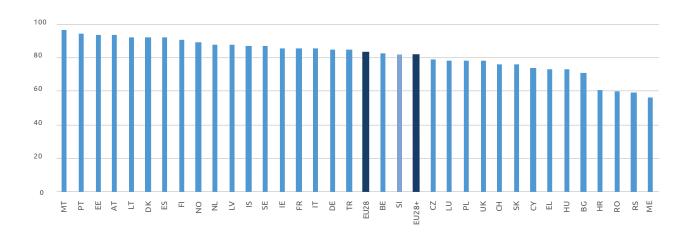


Figure 3.19 Online availability scores, biennial average

⁹ https://ec.europa.eu/digital-single-market/en/desi

The average EU28 score is 84% and the EU28+ score is 83%, with some countries scoring better and some countries doing worse. The three best performing countries are Malta, Portugal and Estonia. The three countries that leave most room for improvement are Romania, Serbia and Montenegro.

The DESI eGovernment services for business indicator is based on the eGovernment benchmark *cross-border online availability indicator*, which is a sub-indicator of the eGovernment cross-border mobility benchmark and captures the extent to which basic public services for businesses, when starting a business and for conducting regular business operations, are online available and cross-border. Figure 3.20 shows the 2016+2017 biennial averages for this indicator.

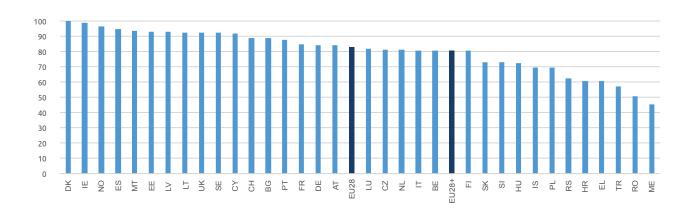


Figure 3.20 eGovernment Services for Businesses, biennial average (2016+2017)

The average EU28 score is 83% and the average EU28+ score is 81% on this indicator. However, there is considerable variation among the individual country scores. Denmark, Ireland and Norway perform extremely well, while Montenegro, Turkey and Romania score quite low on this indicator.

The DESI Pre-filled forms indicator is based on the eGoverment Benchmark *authentic sources indicator*, which measures if personal data that was previously gathered by the public administration is prefilled in forms presented to the user. This indicator

is a sub-indicator of the eGovernment key enablers benchmark. Figure 3.21 displays the 2016+2017 biennial averages for this indicator.

The EU28 average is 54% and the EU28+ average of this indicator is 53%, which is relatively low compared with the online availability indicators. The three best performing countries are Malta, Estonia and Finland, these countries all perform quite well on this indicator. However, the three worst performing countries (Greece, Romania and Switzerland) perform quite poorly on this indicator.

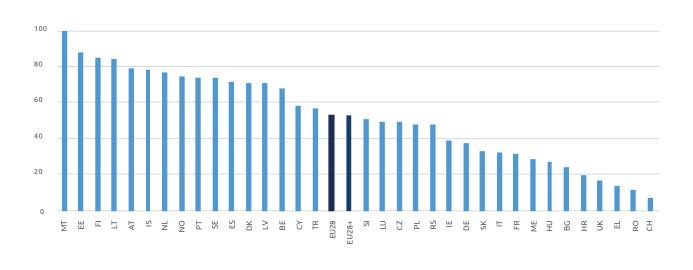


Figure 3.21 Authentic sources scores, biennial average

eGovernment Benchmark 2018

Part two: Deep dive into the life events

Regular business operations

This chapter assesses the top-level benchmarks in the life event "Regular business operations". After a short introduction to the life event, the results on User centricity, Transparency, Cross-border mobility and Key enablers will be presented and elaborated upon.

4.1. Introduction to life event

Providing eGovernment services to businesses is one of the top priorities that empowers entrepreneurs to build their companies and lowers the burden of running a business. Therefore, each year a business-related life event is included, in 2013, 2015 and 2017's report, the results of the "Business start-up" evaluations are included, and in 2012, 2014, 2016 and this year's report the "Regular business operations" services are included.

Electronic governmental services for businesses hold enormous economic value. Lowering the burden frees up time to focus on their core activities. Using digital technologies opens the possibility to increase the value for governments; efficiently executing the service, collecting more (accurate) information and being more flexible in general. Additionally, eGovernment services can lower barriers to entry for foreign businesses, adding to the overall economic activity and bringing the European Single Market a step closer.

4.2. User centricity

The User centricity benchmark focusses on the Online availability and Mobile friendliness of the services relevant for "Regular business operations".

4.2.1 Online availability

Figure 4.1 provides an overview of the EU28+ countries' scores for Online availability under the "Regular business operations" life event, for the eleven services evaluated, and an overall average of these services. On average, in 87% of the cases services can be carried out online and through a portal. However, the level of automation is low at 2%. In 10% of the cases only information is provided, either through a portal (9%) or directly (1%). In about 1 % of the cases the service is only available offline (1%).

Ten out of eleven services score very high, being either available online or are carried out automatically in over 80% of cases. Furthermore, only two out of eleven services had some level of unavailability online. Automation only occurs in the services that provide data to statistical offices (12%), request a refund of VAT (6%) or reporting illnesses of employees with authorized institutions (3%). The following services are least frequently available online: request compensation for wages of ill employees (60%), object and appeal against a claiming refund of

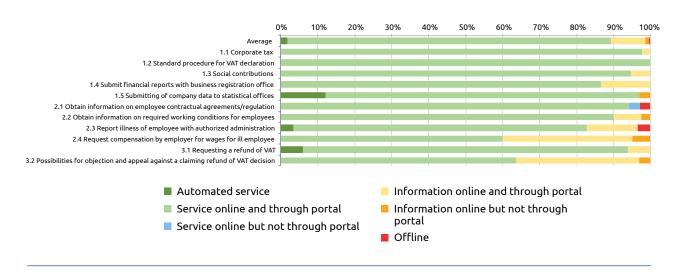


Figure 4.1: Availability of services in the life event "Regular business operations"

VAT decision (64%) and report illness of employees with authorised institutions (82%). The only service to be available online in all countries is the Standard procedure for VAT declaration.

Comparing the services to the previous measurement (2015), Online availability has improved on nearly all fronts. Services for which only information was provided

in 2015 are often available online today. On the other hand, the services that were available online in 2015 are now often automated. Noticeable is that the offline availability has not gone down for obtaining information on employee contractual agreements/regulation and for reporting illness of an employee with the authorised institution.

Bulgaria – National Revenue Agency

Top-level benchmark

User Centricity

Life event

Regular business operations

1. Good practice description

The e-services of the Bulgarian National Revenue Agency are easy to access through its front page. The e-services, which are promoted on the site, allow remote access to the most popular inquiries, documents and other services.

The Agency provides a total of 176 administrative services. Most of them (125) are electronic and can be accessed via Qualified Electronic Signature (QES), Personal Identification Code (PIC), and a free access. The remaining 51 can be communicated in any electronic way. The Portal for electronic administrative services provides for easy, fast and secure submission of Value Added Tax Act (VAT) declaration, registration of data for concluded/amended/suspended employment contracts, verification of social security instalments and many others.

2. Benefits

- Low administrative burden on businesses to pay their taxes and other contributions.
- Increased voluntary compliance.

3. Key success factors

- Fully electronic infrastructure.
- Clear strategy and recognition of value.
- High visibility and findability of the e-services.

4. More information

More information can be found at: http://www.nap.bg/page?id=319

Good practice 6. Bulgaria

4.2.2. Mobile friendliness

Putting the citizen at the centre of service provision also means empowering them to use the service with the tool they prefer. This paragraph shows the results of the Mobile friendliness evaluation. As citizens access the web more and more through their mobile phone or tablet, it is important for public institutions to follow, lowering barriers and increasing ease of use. In Figure 4.2, the scores per service of the "Regular business operations" life event.

Overall, the Mobile friendliness of the services is high with an average score of 90% with no service scoring lower than 85%. The highest scoring service is objecting and appealing against a refund of VAT decision, closely followed by corporate tax and requesting compensation for ill employees, all with average scores of 93%. The average scores for the participating countries for requesting a VAT refund is 92%, for reporting ill employees it is 89%, for obtaining information on working conditions it is 88% and for submitting company data to statistical offices is 86%. All other services have average scores of 90%.

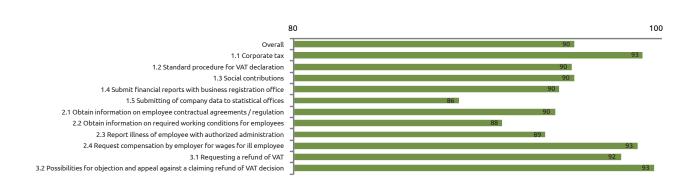


Figure 4.2: Mobile friendliness per service in the life event "Regular business operations"

4.3. Transparency

Transparency for "Regular business operations" is important to build trust in public institutions. It is important to show how public institutions work and what they do with the data the business provides, and to show businesses how they can interact with those institutions.

As shown in Figure 4.3, transparency in the services relevant to "Regular business operations" is generally quite high, with two thirds of the services

averaging at 70% or higher. However, there are opportunities to improve as no service scores over 82% on average. With Standard procedure for Value-Added Tax (VAT) declaration scoring the highest (82%) and request compensation by employer for wager for ill employee the lowest (38), it mirrors the scores in Online availability.

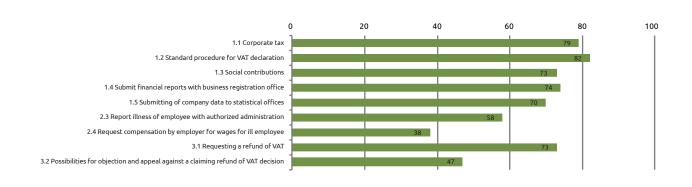


Figure 4.3: Average transparency per service in the life event "Regular business operations"

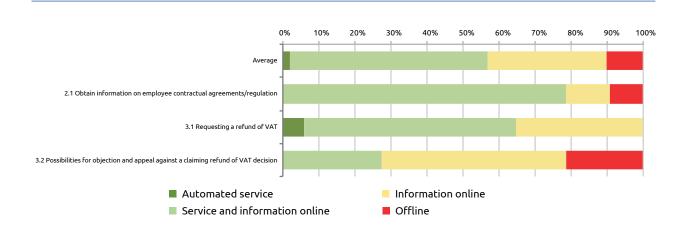


Figure 4.4: Cross-border availability of services in the life event "Regular business operations"

4.4. Cross-border mobility

To create a (Digital) Single Market access to eGovernment services for foreign entrepreneurs is essential for businesses to operate in another country. The ability to perform "Regular business operations" digitally entices companies to set up branches abroad, adding to economic growth within the EU. Figure 4.4 displays the online availability for the EU28+ countries on Cross-border mobility services.

On average, services are available online for foreigners in over 50% of cases, and information is available online in over 20%, unfortunately, over 10% of services are only available offline. Differences between the three services are large, where requesting a VAT refund is digitally more accessible compared to objecting and appealing against refund of VAT decision (automated: 5% vs 0%, service and information online: 58% vs 26%, information online: 35% vs 50% and not available online: 0% vs 21%, respectively).

Poland - BIZNES.GOV.PL

Top-level benchmark

Cross-border mobility

Life event

Regular business operations

1. Good practice description

Biznes.gov.pl is a portal website dedicated to people planning and conducting economic activities. The aim of the portal is to support entrepreneurs successfully setting up and running their businesses. It eases and serves both national and non-national companies.

2. Benefits

- An essential Point of Single Contact for businesses with almost 1100 service descriptions, 170 guides and 300 online services (partially for non-national businesses).
- Online support in both Polish and English, including a Help Center with a live virtual consultant and various contact channels.

3. Key success factors

- Strong focus on users, with for instance trainings modules for entrepreneurs.
- Part of the EUGO network and funded by various programmes, such as 'Digital Poland' from the European Union Funds scheme.

4. More information

More information can be found at: https://www.biznes.gov.pl/pl/firma For English: http://www.businessinpoland.gov.pl/

Good practice 7. Poland

4.5. Key Enablers

Key enablers help lower barriers for businesses to access public services by simplifying, unifying and modernising public administrations. The results of the evaluation of three Key enablers: eID, eDocuments and Authentic sources, are shown in Figure 4.5.

Accessibility of services through electronic identification is high when comparing the "Regular business operations" to the

other life events in this report. Access using a national eID or through another service is available in over 70% of the participating countries (in 20% of countries you can use either, while in 50% one of the options is available). Noticeable exceptions are services that provide possibilities to object and appeal against a claiming refund of VAT decision and requesting compensation for wages of an ill employee, they are only accessible with eIDs or through other services in



Figure 4.5: Availability of eID, eDocuments and Authentic sources per service in the life event "Regular business operations"

50% of countries. These two services are also most frequently not accessible online (in nearly 40% of cases). Value can be added for businesses by implementing the eID to the 10% of services that are available online but do not offer eID yet, and by making the offline services digitally available.

Usage of eDocuments is high for the Regular business operation services. The average for all services is over 75%, where submitting financial reports with business registration offices scores highest (93% of EU28+ countries) and objecting and appealing against a claiming refund of VAT decision lowest (50% of EU28+ countries). Results on the evaluation of Authentic sources was mixed, where the average of prefilling based on these sources is 70%, the lowest scoring item was again objecting and appealing against a claiming refund of VAT decision (39%) and the two highest scoring items were submitting financial reports with business

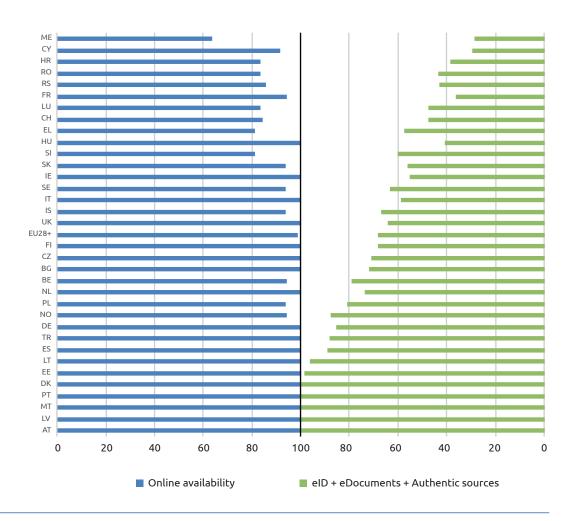


Figure 4.6: Correlation Online availability and Key enablers in the life event "Regular business operations" by country

registration offices and corporate tax services (86%). When comparing the deployment of Key enablers in 2017 to 2015, improvements are apparent, especially in the services that were lagging with eDocument implementation at that time.

Deployment of the Key enablers within the participating countries relates to the Online availability of their services; the more services are digitized, the more value the Key enablers can provide. To give insight into this relation in the countries, the correlation is analysed in Figure 4.6.

Scoring 100% on both dimensions are Austria, Latvia, Malta, Portugal and Denmark, followed closely by Estonia (100% and 99%, Online availability and Key enablers respectively), Latvia (100% and 96%), Spain (100% and 89%), Turkey

(100% and 88%) and Germany (100% and 85%). Implementation of the enablers is relatively behind Online availability in Cyprus (92% and 30%), Hungary (100% and 41%), France (94% and 36%), Croatia (83% and 38%) and Ireland (100% and 45%).

4.6. Progress across Europe

To provide insight in how the participating countries perform in general in terms of their "Regular business operations", the results of the evaluations per benchmark are averaged and displayed in Figure 4.7. The top three countries in this field are Malta, Latvia and Estonia, also scoring ten points or more above average are Denmark, Latvia, Spain, Norway and Portugal. The three lowest scoring countries are Montenegro, Romania and Croatia, scoring also at least ten points under the average are Greece, Cyprus and Slovenia.

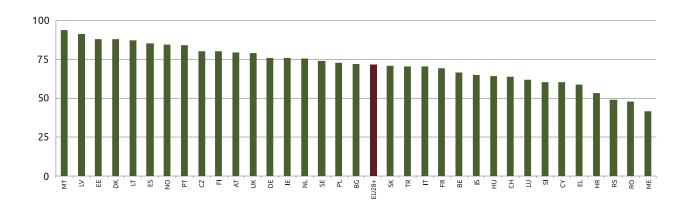


Figure 4.7: Country ranking of average of top level benchmarks in the life event "Regular business operations"

Moving

Moving

This chapter assesses the top-level benchmarks in the life event "Moving". After a short introduction to the life event, the results on User centricity, Transparency, Cross-border mobility and Key enablers will be presented and elaborated upon.

5.1. Introduction to life event

Offering citizens the freedom to live wherever they want, also means enabling them to move with as little effort as possible. Governments have a role in lowering the administrative barriers and providing citizens with information that can help them decide where to live. Additionally, to provide freedom of movement within Europe also entails enabling citizens to move across member states' borders, how easy do members states make such a move?

For this life event, eight services are evaluated. These services are related to all interactions citizens have when arranging to move, getting information about local facilities, obtaining the necessary permits to notifying the new and old municipalities and relevant institutions.

5.2. User centricity

User centricity is evaluated on two aspects: Online availability and Mobile friendliness, this chapter elaborates on the findings for the services relevant to the life event "Moving".

5.2.1. Online availability

The average scores of the EU28+ countries for the "Moving" life event services are displayed in Figure 5.1. Overall, 72% of the services are automated (7%) or available online (via a portal: 65%, directly: 1%), for 25% of services information is available online (via a portal: 24%. directly: 1%) and 2% of services are not available online. However, the variance between services and countries is large. Where Obtaining information on local facilities is available at the same level in nearly all countries (service is online available in 94% of the cases), notifications of additional organisations varies greatly (automated in 38%, online available in another 38%, information available in 21% and not available online in 2%). Countries are most digitally advanced in signing out at old municipalities. This service is automated in roughly 51% of the cases and online available in roughly 42% of the cases. In roughly 5% of the cases only information is available online and for roughly 1% of the cases the service is only available offline. Countries are least advanced in notifying postal and utility services. This is automated in roughly 5% of the cases and online available in roughly 36% of the cases. In roughly 41% of the cases only information is available online and in 19% of the cases this service is only available offline (please note that services and information is not accessible through a portal in 12 of those percent-

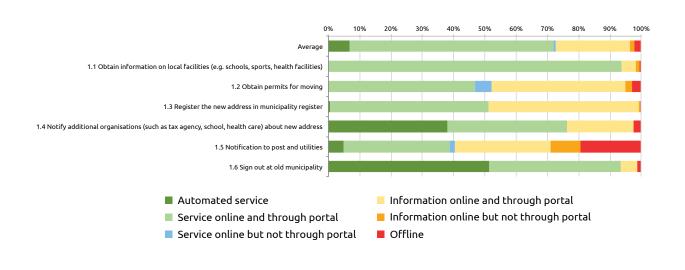


Figure 5.1: Availability of services in the life event "Moving"

age points). Obtaining moving permits and registering an address in the new municipality are similar in their digital accessibility, both services are accessible online in around 50% of cases or have information available online in around 45%, where registering the new address is slightly ahead as is it only available offline in only 1% of the cases compared to 3% of the cases for obtaining a permit.

Digital accessibility has improved across the board when comparing this years' results to 2015. Offline accessibility decreased with 5 percentage points (p.p.) for obtaining moving permits, registering addresses at the new municipality and notifying additional organisations, post and utilities. The percentage of automated services has grown; with 20 p.p. for signing out at the old municipality, nearly 10 p.p. for notifying additional agencies and doubled for Notifying post and utilities.

Switzerland - eMovingCH

Top-level benchmark

User centricity

Life event

Moving

1. Good practice description

The Confederation, cantons and communes have devised eMovingCH to enable the electronic reporting and processing of changes of address and moves to and away from a commune. It should be implemented throughout Switzerland by the end of 2019. With eMoving, inhabitants can simply send notification of their house moves electronically. In the meantime, all the communes in the Canton of Zurich are now using the online moving platform. In this way, over one million inhabitants in the canton of Zurich are able to benefit from this. In August 2016, the city of St Gallen became the first commune outside the canton of Zurich to join eMovingCH.

Since August 2017, eMoving is also available in the cantons of Aargau, Zug and Uri. At least 10 other cantons are planning to introduce it in 2018.

2. Benefits

- Up to now, around 16,000 house moves were notified electronically.
- The service can be used from any location. It reduces administrative burden for citizens and authorities and is time- and cost-efficient.

3. Key success factors

- The solution that is being applied in the canton of Zurich is also available to other cantons as a "combined solution". It is to be operated in the future by the organisation eOperations Switzerland, which will be set up in the context of a strategic eGovernment Switzerland project. As a standard, the eMoving portal takes account of a reference model and is implemented with the residents register solutions used by the municipalities.
- Full electronic processing of the moving process is still not possible today for the general public. More action is needed for expanding eMoving throughout Switzerland, in particular in the following areas: support for the implementation of eMoving in cantons and communes within the scope of cantonal projects, setting up and assurance of the operation of the eMovingCH solution, and elimination of various legal obstacles.

4. More information

More information can be found at: https://www.egovernment.ch/en/umsetzung/schwerpunktplan/e-umzug-schweiz/

Good practice 8. Switzerland

Iceland – Change of address

Top-level benchmark

User centricity

Life event

Moving

1. Good practice description

The 'Change of address' service from Registers Iceland enables citizens to notify their government on a new residence in Iceland. The service is fully available online. Citizens can securely identify themselves using one of their national eIDs (Icekey or Digital certificates).

2. Benefits

- Fast: address changes are valid in 1 day and confirmed by email.
- User friendly: online chat functionality available for additional support.
- Multilingual: service information available in both Icelandic and English.

3. Key success factors

- All municipalities can connect to the 'Change of address' service, 70% have already done so
- Address changes become directly available in the Icelandic National Population registry.

4. More information

More information can be found at: https://www.skra.is/english/individuals/me-and-my-family/change-of-address/

Good practice 9. Iceland

5.2.2. Mobile friendliness

The accessibility through mobile devices of the services provided by the public institutions is shown in Figure 5.2.

Again, the Mobile friendliness for services is high, with an overall average of 88%. The most mobile friendly service in the EU28+ countries is signing out at the old municipality with an average score of 93%, which is relatively far ahead of the other services, all scoring under 90% and around 88%.

5.3. Transparency

Transparent public institutions can help citizens move and feel at home at their new environment easily and quickly. Being informed about what institutions do what and how, helps prevent confusion in times when citizens already have a lot on their mind. The scores related to Transparency are shown in Figure 5.3.

As in the "Regular business operations", the scores for Transparency reflect those of Online availability. The most advanced

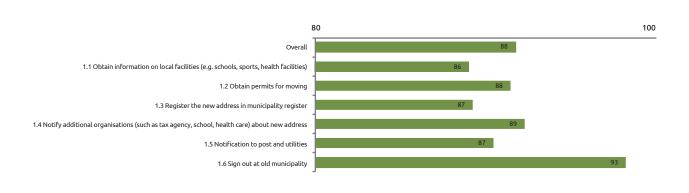


Figure 5.2: Mobile friendliness per service in the life event "Moving"

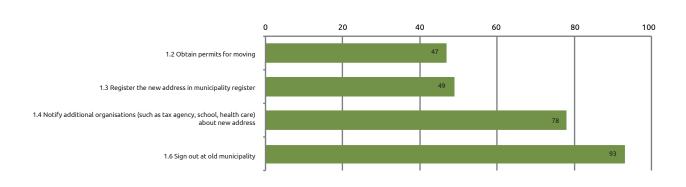


Figure 5.3: Average transparency per service in the life event "Moving"

service in Online availability is also the most Transparent; signing out at old municipality with its score 93% is at least 15 p.p. ahead of other services. Second place is for notifying additional organizations with a score of 78%, with registering the new address and obtaining permits for moving close together in the back with scores of 49% and 47%, respectively.

5.4. Cross-border mobility

The digital accessibility for foreigners is evaluated for four of the "Moving" services. The average scores for the EU28+ countries is shown in Figure 5.4.

In just under 40% of the cases the evaluated services were online available for foreigners, and information about the services was available in another 36%, where it was only available offline in 26%.

Online availability ranges from 19% (for issuing a registration certificate) to 50% (for obtaining information on rights and obligations when moving abroad). The online availability of obtaining information on local facilities is 28% and the online availability on rights and obligations when moving abroad is 40%. The range in services on which only information is provided is bigger, from 28% (obtain information on local facilities) to 63% (Issue a registration certificate). The service that is least often represented online is obtaining permits for moving (only offline available in 35% of countries), followed by obtaining information on rights and obligations and issuing a registration certificate, 28% and 17%. The most digitally accessible service is obtaining information on rights and obligations which is only offline available in just 2% of the participating countries.

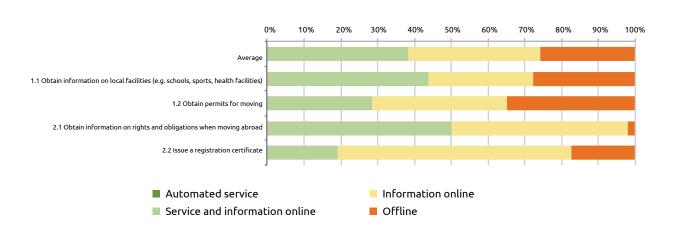


Figure 5.4: Cross-border availability of services in the life event "Moving"

5.5. Key enablers

Deployment of Key enablers is also evaluated for the life event of "Moving",

how the services have implemented eID, eDocuments and Authentic sources is shown in Figure 5.5.

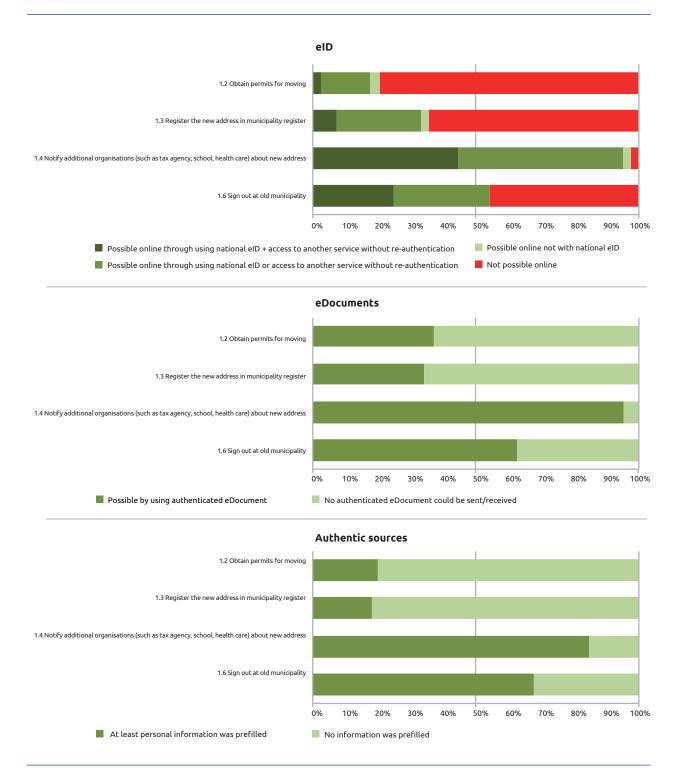


Figure 5.5: Availability of eID, eDocuments and Authentic sources per service in the life event "Moving"

Different trends appear when comparing this benchmark to the Online availability and Transparency, where signing out at old municipalities scored highest in the previous two, it is surpassed by notifying additional institutions on all three enablers, by a significant margin. Notifying additional institution services implemented a form of eID in 96% of countries, or at least possible online in another 2%. eDocuments and Authentic sources are used in 95% and 85% of countries. Signing out at old municipalities is possible with an eID in 55% of countries, eDocuments and Authentic sources are implemented in around 65% of countries. Where obtaining moving permits and registering an address at the new municipality differ

in the implementation of eID (18% vs 33%), they both make use of eDocuments (35%) and Authentic sources (20%) in a similar fraction of the EU28+ countries.

Comparing this year's results to those of the 2016 eGovernment benchmark, the biggest improvements are apparent in the implementation of the eDocuments where every service (except signing out at old municipality) has improved by being implemented in 10 p.p. more countries.

To give an overview of where the room for eGovernment lies for the different countries within their "Moving" services, the Online availability is put against the average score for their Key enablers in Figure 5.6.

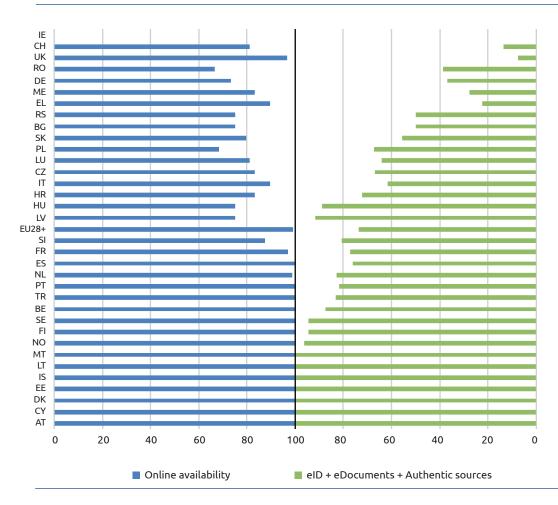


Figure 5.6: Online availability and Key enablers in the life event "Moving" by country

The countries that have a perfect score of 100% on both indicators are Malta, Lithuania, Iceland, Estonia, Denmark, Cyprus and Austria. A group nearing the perfect score already scores 100% for Online availability and above 75% for the Key enablers consists of: Norway (Key enabler score of 96%), Finland and Sweden (95%), Belgium (87%), Turkey (83%), Portugal (82%) and Spain (76%).

The countries that demonstrate most room for improvement on these two indicators are: Luxembourg (81% and 64% for Online availability and Key enablers, respectively), Poland (68% and 67%), Slovakia (80% and 56%), Bulgaria (75% and 50%), Republic of Serbia (75% and 50%), Greece (90% and 22%), Montenegro (83% and 28%), Germany (73% and 37%), Romania (67% and 39%), United Kingdom (97% and 8%) and Switzerland (81% and 14%).

5.6. Progress across Europe

How are the countries ranked in terms of their overall eGovernment "Moving"

services? Ranking them based on the average of the four top-level benchmarks, the results are shown in Figure 5.7.

Overall the participating countries have a lower score for this life event compared to "Regular business operations", but higher compared to the other two; 67% for "Moving", 71% for "Regular business operations" and 55% and 51% for ""Owning and driving a car"" and "Starting a small claims procedure".

The highest scoring country is Malta with 98%, followed by Finland and Iceland. Other high scoring (ten p.p. or more above the EU28+ average) are: Sweden with 87%, Denmark with 86%, Estonia with 84%, Austria with 83%, Lithuania and Norway with 80%, the Netherlands with 79% and Portugal with 77%. Lower scoring countries (ten or more p.p. below the EU28+ average) are: Germany with 56%, Republic of Serbia with 54%, Hungary and Poland with 52%, Greece with 50%, United Kingdom with 46%, Romania with 40%, Montenegro with 38% and Switzerland with 35%.

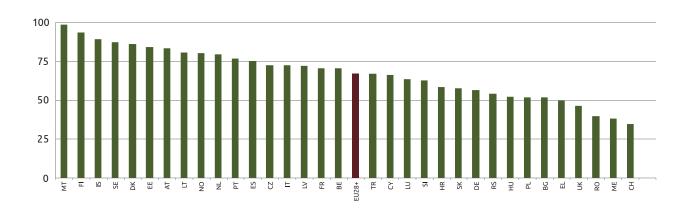


Figure 5.7: Country ranking of average of top level benchmarks in the life event "Moving"

Owning and driving a car

Owning and driving a car

This chapter assesses the top-level benchmarks in the life event "Moving". After a short introduction to the life event, the results on User centricity, Transparency, Cross-border mobility and Key enablers will be presented and elaborated upon.

6.1. Introduction to life event

Passenger cars are by far the most important method of inland passenger travel (over 80% in the EU 2015), within some countries this number is even above 90%¹⁰. Despite the downside of congestion and pollution, it is important to provide easy to use and efficient services that are needed to own and drive a car. Eleven services are related in this year's evaluation, analysing the actions that are needed to buy a car, but also the more mundane tasks of dealing with vehicle taxes and fines.

6.2. User centricity

User centricity is evaluated on two aspects: Online availability and Mobile friendliness, this chapter elaborates on the findings for the services relevant to the life event "Owning and driving a car".

6.2.1. Online availability

The Online availability of each of the "Owning and driving a car" services is evaluated; the results of this analysis are summarised in Figure 6.1. In most cases only information on the service is available online (42% through a portal and 6% outside of one). In 46% of the cases the services themselves are available online and 1% of the cases the services are automated. Unfortunately, in 4% of the cases services are only available offline.

The service that is most often automated is paying vehicle / road tax, in 6% of cases, followed by registering a new or second-hand

car or submission of periodic motor vehicle reports (3%), and registering an imported car or consulting vehicle details in a car register at (1%). For most services the online availability lies between 40%-60%. Services that perform exceptionally well in this regard are obtaining information on what is needed when buying a car (88%), submitting periodic motor vehicle reports(67%), registering for toll roads (60%) and dealing with driving fines (60%). Services that perform not so well in this regard are requesting a replacement vehicle registration (27%) and registering an imported car (33%). Dealing with driving fines has the highest frequency of unavailability online, with 9%, followed by requesting access for toll roads with 6%, obtaining a parking permit with 4%, consulting vehicle details in a register with 3% and paying vehicle / road taxes at 1%.

Looking into how the Online availability has developed between the 2015 eGovernment benchmark report and now, improvements are apparent across the board. Impressive is the decline in offline availability. For submitting periodic vehicle testing reports, the decline is greater than 15%, while it is over 10% for obtaining a parking permit, paying vehicle / road taxes, consulting car details in a register and registering an importing car. Also, the Online availability of services has improved. In 2015 there were still six services that were not online available in more than 60% of the countries. Currently there are only two services that are not online available in more than 60% of the countries. The registering for toll road access has improved in terms of its portal accessibility, the percentage of services and information that are outside of a portal has decreased from around 18% to 4% and from around 28% to also 4% currently.

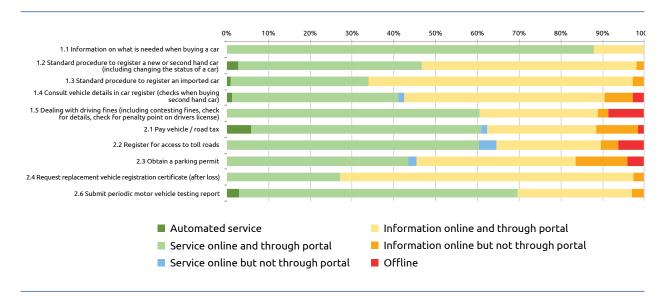


Figure 6.1: Availability of services in the life event "Owning and driving a car"

6.2.2. Mobile friendliness

For the "Owning and driving a car" services, the Mobile friendliness scores are displayed in Figure 6.2 with an overall average score of 86%.

Most services have an average score of 86% in the EU28+ countries; registering

a new or second-hand car, registering an imported car, dealing with driving fines and paying vehicle or road taxes. The service with the lowest score is reporting a stolen car with 83% and the highest scoring service is registering for access to toll road with 90%.

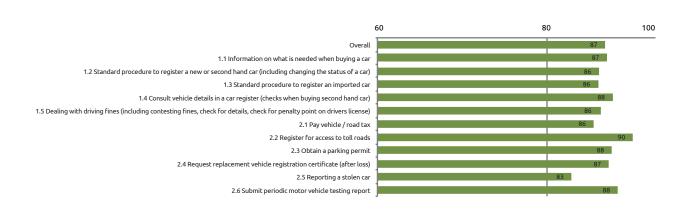


Figure 6.2: Mobile friendliness per service in the life event "Owning and driving a car"

6.3. Transparency

The Transparency scores for "Owning and driving a car" services are displayed in Figure 6.3. Looking at all these services, Transparency scores are the lowest for this life event together with those for "Starting a small claims procedure", as the scores only vary between 4% and 56% compared to "Moving" 47% and 93% and "Regular business operations" 38% and 82%.

The most transparent service for "Owning and driving a car" is paying vehicle or road tax with an average score of 56%, followed by requesting a replacement vehicle registration certificate with 44%, registering an imported car with 39% and obtaining a parking permit with 26%. The services that score lowest for participating coun-

tries are submitting periodic motor vehicle test reports with 20% and dealing with driving fines with 4%.

6.4. Cross-border mobility

In the Cross-border mobility benchmark we evaluate how well the services are accessible for foreigners. For the "Owning and driving a car" life event we assessed the possibility to deal with driving fines as a foreigner. Foreigners can access this service online in 20% of the cases or can find information about it in another 43%. Unfortunately, the service is only available offline in 38% of the cases.

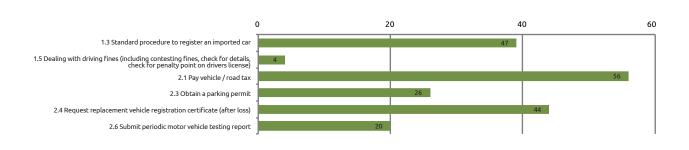


Figure 6.3: Average transparency per service in the life event "Owning and driving a car"

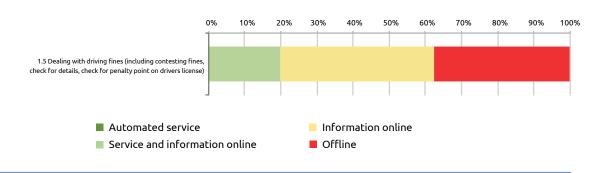


Figure 6.4: Cross-border availability of services in the life event "Owning and driving a car"

6.5. Key enablers

Implementing Key enablers helps citizens reduce the number of steps needed to make use of the services provided by the public institutions. In addition, it helps authorities and

citizens ensure that the correct data is filled. This increases the likelihood that citizens use the services. The implementation data for services related to "Owning and driving a car" are shown in Figure 6.5.

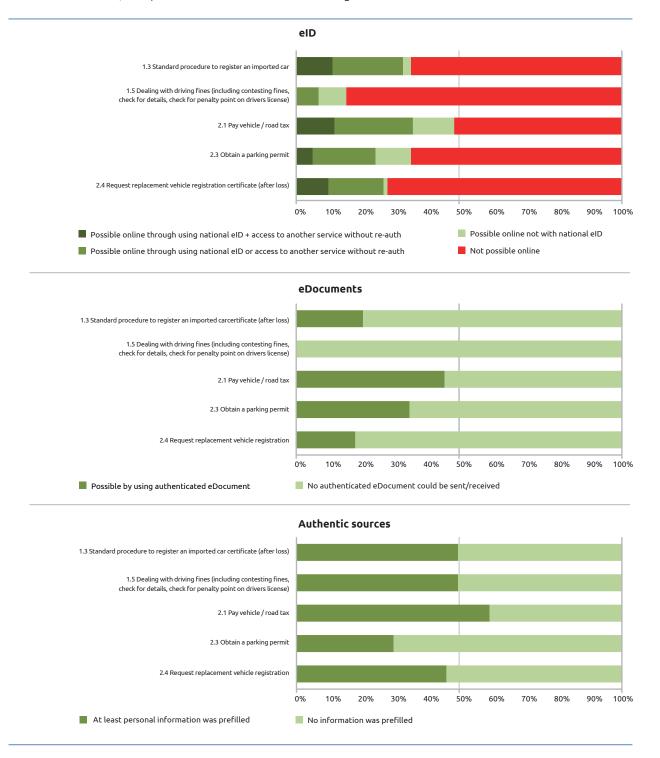


Figure 6.5: Availability of eID, eDocuments and Authentic sources per service in the life event "Owning and driving a car"

Of the Key enablers, Authentic sources is employed in the largest number of the EU28+ countries, with most services hovering around an implementation level of 50%, where this number for eID and eDocuments is often significantly lower. Comparing these results to those of 2015, improvements are visible for Authentic sources, with less improvements in the other benchmarks for "Owning and driving a car" or the other life events.

As with the other life events, an overview of the scores for Online availability and Key enablers is graphed in Figure 6.6, to view the areas of improvement for the EU28+ countries.

Figure 6.6: Online availability and Key enablers in the life event "Owning and driving a car" by country

On a high level, no country has the maximum score of 100% for both indicators. Additionally, the top countries score higher on their Key enablers than on Online availability, which is different from the previous life events. However, when the gap gets larger, it is mostly because the Key enabler score starts dropping. This

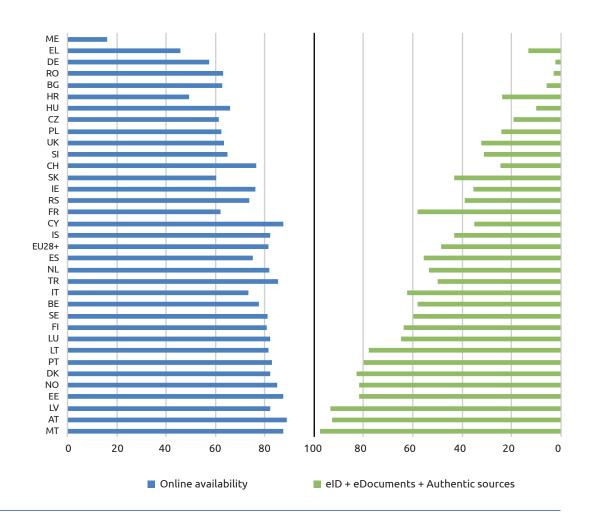


Figure 6.6: Online availability and Key enablers in the life event "Owning and driving a car" by country

means that the more digitally advanced countries can improve by adding more services online, without having to invest much in the infrastructure, whilst this is reversed for the mid-scoring countries. The average scores for all participating countries are 81% for Online availability and 49% for Key enablers, with Malta at the top with scores of 88% and 98%. The top five is filled by Austria (89% and 93%), Latvia (82% and 93%), Estonia (88% and 82%) and Norway (85% and 82%). The countries with the biggest difference between the two scores are Romania (Online availability is 60 p.p. higher), Bulgaria and Romania (around 55 p.p.), Cyprus (53 p.p.) and Switzerland (52 p.p.). The countries with the largest gap to the maximum score are Bulgaria (63% and 6%), Romania (63% and 3%), Germany (57% and 2%), Greece (46% and 13%) and Montenegro (16% and 0%).

6.6. Progress across Europe

How do the countries rank against each other? The average score of the four top-level Benchmark is used to compare the countries amongst themselves, with the results shown in Figure 6.7.

The average score for all countries is 55%, which is lower than the average for "Regular business operations" (71%) and "Moving" (67%), but higher than the average for "Starting a small claims procedure" (51%). Again, Malta scores the highest, this time with 89% (the lowest of the highest scores for all life events). Malta is followed by Austria (84%) and Estonia (83%), with these following countries also scoring ten or more points above the EU28+ average: Latvia (79%), Norway (78%), the Netherlands (74%), Denmark (72%), Portugal (71%), Finland and Lithuania (68%), France (67%) and Sweden (65%). Countries on the lower end of the spectrum (ten points or more below than the average) are: Italy (45%), Republic of Serbia (43%), Slovenia (42%), Greece and Slovakia (40%), Switzerland (39%), Hungary and Croatia (34%), Poland (33%), Bulgaria (32%), Montenegro (31%), Germany (30%) and Romania (23%).

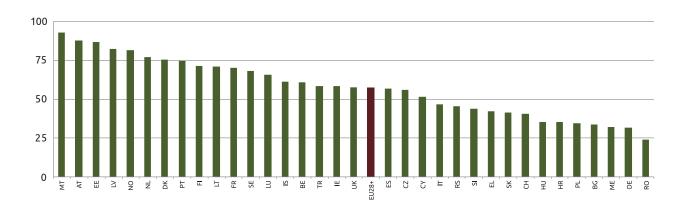


Figure 6.7: Country ranking of average of top level benchmarks in the life event "Owning and driving a car"

Denmark- Motor Styrelsen

Top-level benchmark

User centricity, Transparency

Life event

Owning and driving a car

1. Good practice description

Per July 1st, 2018, this Agency's task is to ensure that all vehicles in Denmark are properly registered and that the processes of valuation and taxation are transparent. These tasks were previously the responsibility of SKAT Motor but now have their own board. Citizens will need the board when they re-register a car, import a car or need to purchase license plates. The Motor Agency also manages car lease, which has grown considerably in recent years. In the long run the Motor Board will improve the customer experience even further by developing more digital solutions for the benefit of citizens and businesses.

2. Benefits

- Improving customer experience by developing digital solutions.
- Improves the functioning of the Danish car market.
- Correct and effective registration and tax calculation of all vehicles.

3. Key success factors

- Dedicated board focusing on vehicles.
- Specialist employees.
- Transparent processes.

4. More information

More information can be found at:

https://www.motorst.dk/aktuelt/nyheder/fokus-paa-hoej-faglighed-og-god-service-i-motorstyrelsen/

Good practice 10. Denmark

Estonia – Road administration e-service portal

Top-level benchmark

User centricity, Key enablers

Life event

Owning and driving a car

1. Good practice description

The Estonian Road administration has its own dedicated e-service portal, where e-services related to owning and driving a car can be found easily. The portal distinguishes between services related to the vehicle, the driver, the road, and public transport. On the vehicle sub-page you can view vehicle data, complete vehicle purchase and sale, temporarily delete the vehicle from the register, modify users, order a registration certificate and mark. On the driver's sub-page, you can view data about your driving license, apply for documents (driver's license, driver's certificate, digital tachograph driver card, etc.), register for examinations. On the road sub-page, you can apply for a special carriage permit for heavy and / or heavy goods and check the details of the special permit issued previously.

2. Benefits

- Improved customer experience.
- Easy access to e-services.
- Identification trough eID.

3. Key success factors

- Possibility to register using eID.
- All vehicle related services available on one portal.
- Clear navigation structure on the portal.

4. More information

More information can be found at: https://eteenindus.mnt.ee/main.jsf

Good practice 11. Estonia

Starting a small claims procedure

Starting a small claims procedure

This chapter assesses the top-level benchmarks in the life event "Starting a small claims procedure". After a short introduction to the life event, the results on the four top-level benchmarks: User centricity, Transparency, Cross-border mobility and Key enablers will be presented and elaborated upon.

7.1. Introduction to life event

Ensuring that citizens can efficiently start small claims procedures empowers them to attain the rights that legislators have set out for them. Providing the services digitally can add mayor value by lowering the barriers, making the service accessible at anytime from anywhere and by increasing the transparency of the processes. Additionally, being able to perform such procedures across borders is an essential part for Europe to operate as a Single Market.

7.2. User centricity

For the services related to the life event "Starting a small claims procedure", user centricity is evaluated on two aspects:
Online availability and Mobile friendliness.
This chapter elaborates on the findings.

7.2.1. Online availability

Evaluating the public online services first and foremost depends on whether, and in what form the services are available online. The Online availability of the services for the Justice life event; "Starting a small claims procedure",

are displayed in Figure 7.1. It is noteworthy that none of the services is automated, however this is no surprise when the nature of the services is considered. Overall, services are available online in 65% of the cases. In 28% of the cases the service information is provided online (4 p.p. of those are not accessible through the portals) and in 7% of the cases services are only available offline.

Analysing the specific services, we note that obtaining information on related legislation and rights is the most digitally advanced service. This service is available online in 84% of the cases, information on this service is available online in 13% of the cases and the service is only available offline in 3% of the cases. Obtaining information on how to start a civil / claim procedure is also quite digitally advanced, the service is online available in 81% of the cases, information is available online in 11% of the cases and is provided offline in only 8% of the cases. Appealing against a court decision is arguably the least digitally advanced. It is only available online in 33% of the cases, information is provided online in 58% of the cases (of which 12% outside of portals), and in 9% of the cases the service is available only offline. The other services are online available in 56%-74% of the cases, information for these services is available online in 13%-36% of the cases and are offline available in 3%- 14% of the cases.

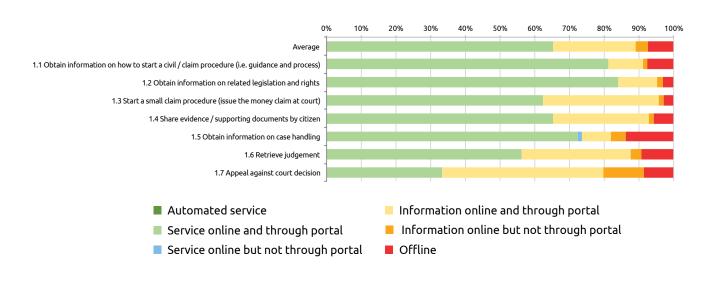


Figure 7.1: Availability of services in the life event "Starting a small claims procedure"

Austria - Justiz 3.0

Top-level benchmark

User centricity

Life event

Starting a small claims procedure

1. Good practice description

The Austrian Judiciary system has implemented extensive e-justice services. Justiz 3.0 integrates Austria's Electronic Legal Communication (ELC) and Verfahrensautomation Justiz (VJ) into the Electronic Integration Portal to enable paperless file management. Implementing these systems within the court room improves the workflow of sharing evidence and information from multiple types of media. Starting in 2016, a pilot of Justiz 3.0 is running in several courts and is planned to be expanded in the coming years.

2. Benefits

- Increases efficiency for the users, and for the legal sector itself.
- Improves workflow, and therefore processing times of the legal system.

3. Key success factors

- Secure and efficient IT infrastructure, in terms of hardware and software.
- Trained personnel.

4. More information

More information can be found at: https://www.justiz.gv.at/web2013/home/justiz/ak-tuelles/aeltere-beitraege/2016/justiz-30--basis-fuer-papierloses-arbeiten~2c94848b5 461ff6e01576bac60e54286.de.html?hight=true

Good practice 12. Austria

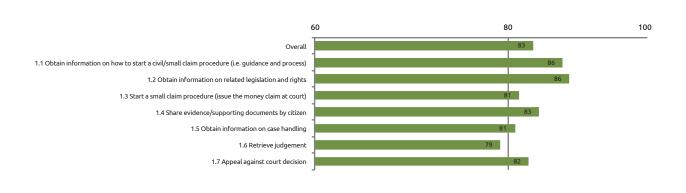


Figure 7.2: Mobile friendliness per service in the life event "Starting a small claims procedure"

7.2.2. Mobile friendliness

Accessibility scores of the online services from mobile devices is displayed in Figure 7.2. The overall average scores of the "Starting a small claims procedure" is lowest compared to the other life events; 82%, and none of the services has a score of over 90%.

The service that does have the highest average score is obtaining information on related legislation and rights with 86%, where obtaining information on how to start a small claims procedure has a slightly lower average, but also

sits at 86%. The least mobile friendly service in the participating countries is retrieving judgement, which is also the only service with an average rating below 80% in this eGovernment benchmark, at 79%.

7.3. Transparency

Transparency of public institutions helps improve trust and faith in the legal system, especially in those processes where citizens interact with those institutions. The scores related to Transparency evaluations are shown in Figure 7.3.

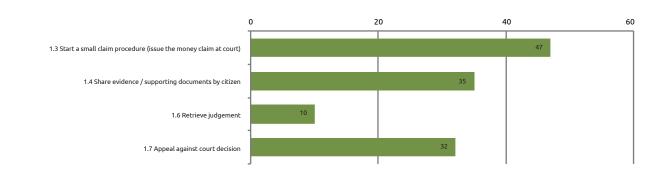


Figure 7.3: Average transparency per service in the life event "Starting a small claims procedure"

Together with "Owning and driving a car", these scores are significantly lower compared to the other two life events, and it has the lowest maximum score of all life events; Start a small claim procedure has the highest score with 47%. In the middle are Share evidence / supporting documents by citizen with 35% and Appeal against court decision with 32%, while Retrieve judgement has the lowest score at 10%.

7.4. Cross-border mobility

Enabling foreigners from within the EU to Start a small claims procedure empowers them to do business within different countries whilst having confidence in the legal system. All services are evaluated on their Cross-border mobility and the results are displayed in Figure 7.4. Overall, the average service is available

online in 29% of cases, and information is provided online in another 27% or it is only available offline in 44% of cases.

The services are relatively homogeneous in their Online availability as the maximum is 39% for obtaining information on related legislation and rights, with the minimum of 16% for retrieving judgements, and the rest ranging between 21% and 37%. The service for which information is most often available online is how to retrieve judgements with 33% closely followed by how to start a civil / claim procedure with 32% and information on related legislation and right with 31%. The service with the least information online is on case handling with 14%. Of the other services, only information is online in 25% and 26% of cases (starting a small claim procedure and obtaining information on case handling respectively).

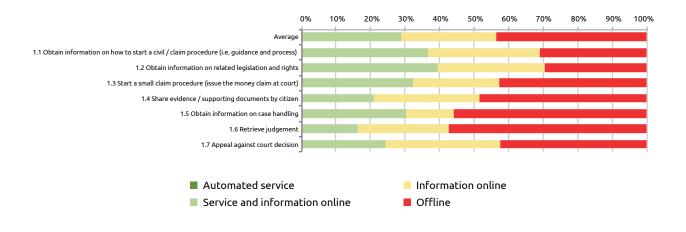


Figure 7.4: Cross-border availability of services in the life event "Starting a small claims procedure"

7.5. Key enablers

The Key enablers can be implemented to lower barriers in what can already be a difficult process for most citizens. To what extent they have been implemented, is laid out in Figure 7.5.

Like the "Owning and driving a car" life event, one service stands out because of its implementation of eID, eDocuments and Authentic sources. Once again, this service (Retrieve judgement) was only evaluated for three countries. The other services are rather similar in their employment of eDocuments and Authentic sources, they are used in around 50% and 20% of the countries respectively. eID is less frequently used for appealing against court decisions (18% with any form of national eID) compared to starting a small claims procedure and sharing evidence / supporting documents (around 40% use any form of national eID).

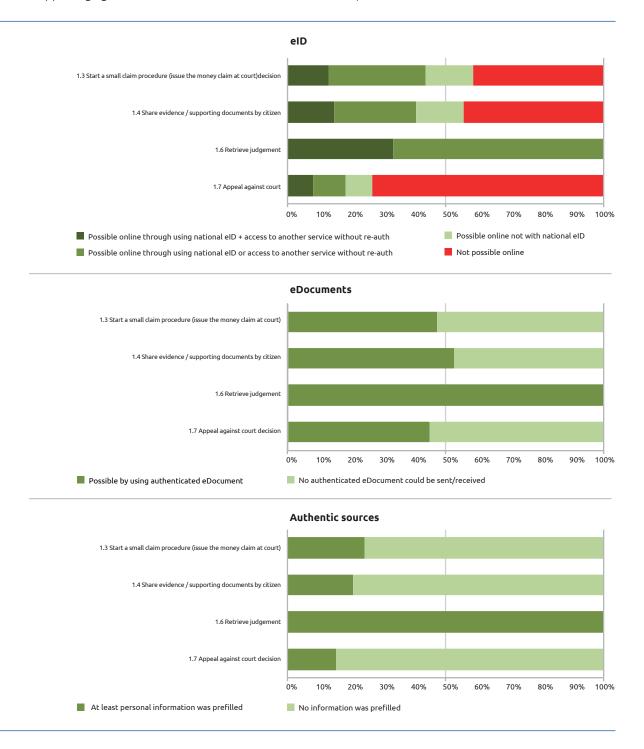


Figure 7.5: Availability of eID, eDocuments and Authentic sources per service in the life event "Starting a small claims procedure"

Where do the opportunities for improvement lie for the individual countries? To help answer this question, an overview of the Online availability versus the Key enablers scores is provided in Figure 7.6.

Remarkable for this life event is that relatively many countries have high scores for Online availability, where some of these have low scores for the Key enablers. Additionally, the number of countries with a score of 0% for the Key enablers is high. The average for all EU28+ countries for Online availability is 92% and for Key enablers 41%.

For this life event, several countries have the perfect score of 100% for both indicators, Malta, Austria and Lithuania, and several more have scored 100% on Online availability; Estonia (with a Key enabler score of 93%), Latvia (92%), Turkey (67%), Portugal and Spain (59%), Germany (48%), Greece (33%), while Italy has a Key enabler score of 0%, with an Online availability score of 91%, similar to Ireland (Online availability 75%), Sweden (65%), Bulgaria and Montenegro (56%), Croatia (38%), Republic of Serbia (37%) and Cyprus (25%).

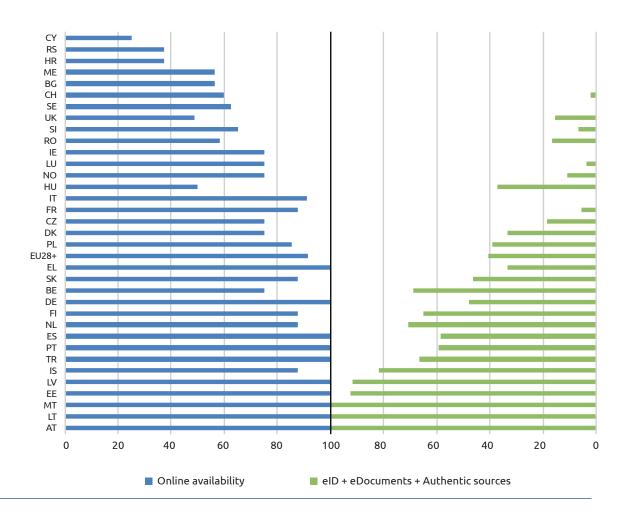


Figure 7.6: Online availability and Key enablers in the life event "starting a small claims procedure" by country

7.6. Progress across Europe

To compare the countries on the overall eGovernment services, the four benchmarks are averaged and displayed in Figure 7.7.

The EU28+ average for this life event is 51%, this is lower than the EU28+averages for the other life events (55% for "Owning and driving a car", 67% for "Moving" and 71% for "Regular business operations"). The highest scoring country is Malta with 92%, followed by Estonia with 86%,

Austria and Latvia with 84% and Finland with 74%. Other high scoring countries (who have scored ten or more points over the all country average) are the Netherlands and Lithuania (69%), Turkey (66%), Iceland (63%) and Estonia (51%). Lower scoring countries (ten or more points below the EU28+ average) are: Italy and Sweden (41%), Slovakia (40%), Greece and Slovenia (39%), Hungary and Romania (33%), Croatia (29%), Bulgaria and Republic of Serbia (24%) and Cyprus with 17%.

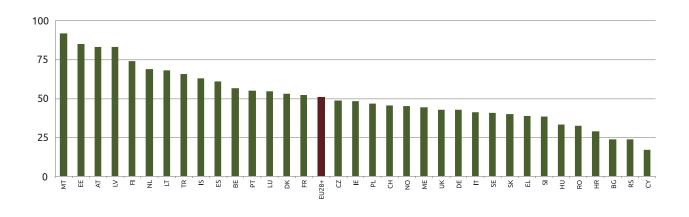


Figure 7.7: Country ranking of average of top level benchmarks in the life event "Starting a small claims procedure"

The explorative benchlearning perspective

The explorative benchlearning perspective

8.1. The benchlearning approach

8.1.1. Introduction to the benchlearning perspective

The eGovernment benchlearning is an approach for comparing eGovernment performances. It originated from the guestion "why do countries with similar contexts perform differently?". Therefore, benchlearning is used to understand how specific country characteristics influence eGovernment performances and how policies could be adjusted in order to be more effective. Going beyond the dissemination of general best practices, it takes into account *status quo* features and innovation drivers from a comparative perspective. Countries with lower performance levels can compare themselves with countries having higher performance levels while sharing similar contexts. This enhances the adequacy and effectiveness of the comparison and enables a learning process, hence the term benchlearning. The benchlearning approach thus puts country rankings into perspective and guides what actions to undertake in order to maximise eGovernment performances.

The benchlearning approach was introduced in the 2015 eGovernment Benchmark. In 2016 time series were added to offer an understanding of how country performances develop over time. The 2017 report refined and developed by: a) clarifying the benchlearning process and analysis in a transparent way; b) removing the statistical cluster analysis; c) detailing the indicators used, by including main DESI¹¹

dimensions; d) specifying the coherence between the benchlearning exercise with the Mystery Shopping benchmark assessment; e) showing a clearer link between countries' contexts and their eGovernment performances. This year's benchlearning applies the approach and methodology as defined last year.

Similar to the 2017 analysis, the 2018 benchlearning analysis covers the EU member states (28 out of the 34 countries that participated in the eGovernment Benchmark) as the necessary data is available for all these countries. The analysis uses the Digital Economy and Society Index (DESI) as one of the main data sources, which is based on the EU28 countries.

8.1.2. The framework of the explorative benchlearning perspective

The benchlearning exercise consists of two main steps.

The first step measures countries' eGovernment maturity through their performances in terms of citizen use of eGovernment services and public administrations' ability to provide efficient and effective procedures and services. Such performances are assessed through two **absolute indicators**: Penetration and Digitisation.

The second step evaluates country factors that shape the specific context of individual countries through a series of **relative indicators**.

This two-step analysis is at the heart of the **benchlearning perspective** as, through

¹¹ The Digital Economy and Society Index (DESI) is a composite index that summarises relevant indicators on Europe's digital performance and tracks EU Member States' developments regarding digital competitiveness, available online: https://ec.europa.eu/digital-single-market/en/desi

the interpretation of contextual variables, it deepens the meaning of performance levels and eGovernment maturity thus offering policy makers inputs for a better targeted policy and strategy design.

8.2. Step 1: Measuring Country Performance through the absolute indicators Penetration and Digitisation

8.2.1. Penetration

Penetration can be described as the extent to which use of the online channel is widespread among users of government services. Digitalising public services is a priority for Europe. Whereas the availability of online services has increased, it is important to know whether the use of digital services has increased in the same way. In other words, it is necessary to compare the supply of online public services with their use in order to understand the maturity of eGovernment. To this end, the Penetration index has been calculated with a composite indicator, which relates:

- the number of individuals that submitted online forms in the last twelve months to
- the total number of individuals that had to submit official forms to administrative authorities.

The assumption behind the calculation of the Penetration variable is that the proportion of people needing to submit forms is the same for both the set of internet users and the whole population. Hence, the indicator was calculated on the basis of the DESI datasets on eGovernment Users and Internet Users. This assumption is meant to counterbalance the positive bias towards countries where a small population of internet users is combined with a high score of eGovernment users. Figure 8.1 shows the Penetration indicator conceptualisation.

Figure 8.2 shows the Penetration index for each country. The average for the 28 EU countries is 53%. High variability in results exists. On the one hand, three countries score a percentage below 30% (Italy, Greece and Czech Republic). On the other hand, six countries score a percentage above 75% (Sweden, Finland, Estonia, Denmark, the Netherlands and the United Kingdom).

Indicator	Composed variables	Data source
Penetration	Internet use: submitting completed forms (last twelve months) Percentage of individuals who need to submit official forms to administrative authorities) as used in DESI indicator 5a1 eGovernment users	European Commission's calculations based on Eurostat data ¹²

Figure 8.1: Penetration indicator conceptualisation

¹² This variable has been constructed by assuming that the percentage of citizens needing to submit forms (for which information is lacking) is analogous to the percentage of internet users needing to submit a form (for which information is available)

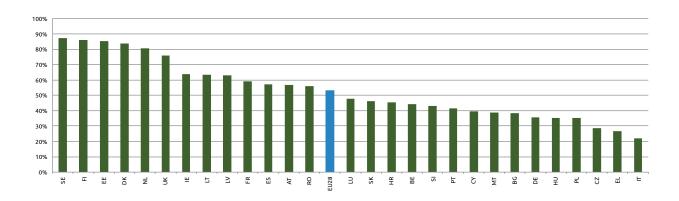


Figure 8.2: Penetration index

Higher levels of Penetration performance could be achieved in two different ways. First, by increasing the number of people that submit official forms online to administrative authorities. Second, by decreasing the number of people that need to submit forms to public administrations, for instance with the automatisation of procedures and reduction of red tape. To increase usage of the online channel, public administrations could digitise a larger number of administrative forms, improve the usability of existing services and implement awareness-raising policies to emphasize the opportunities and advantages offered by eGovernment services. To simplify and automate administrative procedures, databases could be integrated and data could be shared among different public entities.

In this way public authorities could reduce the need for forms filled in by citizens, because the requested data is shared within governmental organisations.

8.2.2. Digitisation

The Digitisation index is a proxy for the Digitisation level of the back and front office. To capture Digitisation the four top-level benchmarks from the Mystery Shopping method were used (Figure 8.3):

- User centricity: indicates the extent to which a service is provided online, its Mobile friendliness and its usability (in terms of available online support and feedback mechanisms)
- Transparency: indicates the extent to which governments are transparent about the process of service delivery,

Indicator	Composed variables	Data source
Digitisation	Average of: User centricity Transparency Cross-border mobility Key enablers	eGovernment Benchmark - Mystery Shopping

Figure 8.3: Digitisation indicator conceptualisation

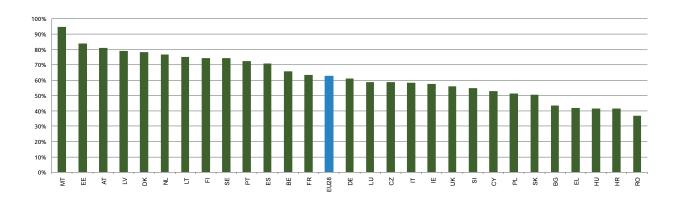


Figure 8.4: Digitisation Index

the responsibilities and performance of public organisations and the personal data processed in public services.

- Cross-border mobility: indicates the extent to which users of public services from another European country can use the online services.
- Key enablers: indicates the extent to which technical and organisational pre-conditions for eGovernment service provision are in place, such as electronic identification and authentic sources.

Since the eight life events composing the Digitisation indicator are measured in a biennial cycle (four each year), Digitisation has been calculated as the biennial average of these eight life events. Looking at the Digitisation indicator (Figure 8.4), the results are more homogeneous than those obtained for the Penetration indicator. The biennial European average is 63%. Only five countries reached a Digitisation score lower than 50% (Bulgaria, Greece, Hungary, Croatia and Romania).

The Digitisation index is composed of the four top-level benchmarks from the Mystery Shopping described above (User centricity, Transparency, Crossborder mobility and Key enablers). For this reason, an improvement of Digitisation would require a boost in at least one of these indicators. More detailed recommendations on the four top-level benchmarks can be found in the previous chapters.

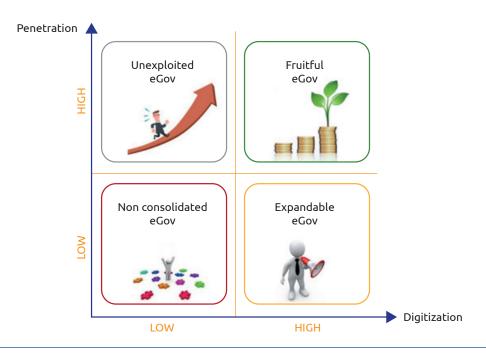


Figure 8.5: Penetration and Digitisation scenarios

8.2.3. Understanding performances

When evaluating Penetration and Digitisation performances in conjunction, the ability of a country to match high levels of digital service usage with high levels of digital service supply. Figure 8.5 shows four scenarios capturing different levels of Penetration and Digitisation:

- Non-consolidated eGovernment: this scenario contains lower levels of Digitisation and lower levels of Penetration.

 A government in this scenario does not utilise ICT opportunities yet and has limited number of users of online public service but could reap corresponding benefits in the future.
- Unexploited eGovernment: this scenario contains lower levels of Digitisation combined with higher levels of Penetration. A government in this scenario is enhancing its digital transformation process, but it already

has a large number of citizens and businesses using eGovernment services. Countries in this scenario could optimise efficiencies in managing their resources and might have room to leverage high online use of eGovernment services.

- Expandable eGovernment: this scenario contains higher levels of Digitisation and lower levels of Penetration. A government in this scenario innovates its public services effectively. Expanding the number of online users would contribute to unfolding more potential benefits.
- Fruitful eGovernment: this scenario contains high levels of both Digitisation and Penetration. A government in this scenario achieved innovative digital services with many users. This helps to deliver public services in an efficient and effective way.

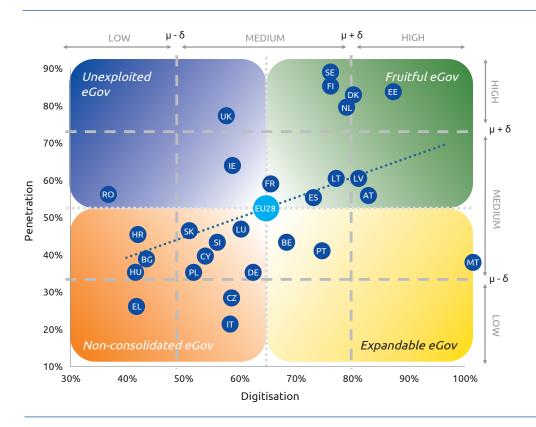


Figure 8.6: Penetration vs Digitisation

Some consideration on classifying the countries according to the four eGovernment scenarios:

- Non-consolidated eGovernment: this group includes almost half (12) of the European countries: Bulgaria, Croatia, Cyprus, Czech Republic, Germany, Greece, Hungary, Italy, Luxembourg, Poland, Slovakia and Slovenia. These countries could further realise ICT opportunities and increase both Penetration and Digitisation by encouraging citizens and businesses to use eGovernment services by digitising both front and back offices of public service providers.
- Unexploited eGovernment: this group is represented by countries with a level of Digitisation below the European average and a good level of Penetration. This scenario includes three countries: Ireland, Romania and the United King-

- dom. In these countries, citizens and companies are familiar with eGovernment service, leaving opportunities for uplifting the quantity and quality of digital services.
- Expandable eGovernment: the Digitisation process of the countries in this scenario is advanced, as compared to lower levels of Penetration. This cluster includes three countries: Belgium, Malta and Portugal.
- Fruitful eGovernment: this scenario includes more than one third (10) of the EU countries: Austria, Denmark, Estonia, Finland, France, Latvia, Lithuania, the Netherlands, Spain and Sweden. These countries are able to combine solid supply of digital services with sufficient users benefitting from these online services.

The joint analysis of Penetration and Digitisation (Figure 8.6) shows a posi-

tive linear correlation between the two indicators. Countries with higher levels of performance in Digitisation often have higher levels of performance in Penetration and vice versa.

There are still substantial differences between countries that are grouped within the same scenario. The performance of some countries in the same scenario might be almost in line with the European average while the performance of other countries might strongly differ from the European average. For example, within the Non-consolidated eGovernment scenario, Luxembourg's Penetration and Digitisation performances are close to the European average, while Greece's Digitisation and Penetration levels are more distinct from the average. Given these differences and to offer a more accurate picture of European eGovernment, each scenario has been divided into four blocks. These blocks separate countries with levels of Penetration and Digitisation near to the European average and countries with lower or higher levels than the European average (Figure 8.6). Two lines are plotted, one corresponding with the European average (µ) plus the standard deviation $(+ \delta)$, and one corresponding with the European average (µ) minus the standard deviation ($-\delta$). Countries with Digitisation or Penetration levels between the two lines are considered countries with medium performances, near to the European ave-rage. In other words, countries that score in between 34% below and 34% above the average. Countries with Digitisation or Penetration levels outside the plotted lines are considered countries with either low performance $(-\delta)$ or high performance $(+\delta)$. Whereas, low performing countries have scores lower than 34% below the average, high performing countries have scores higher than 34% above the average.

As mentioned, twelve countries link to the Non-consolidated eGovernment scenario, and ten countries to the Fruitful eGovernment scenario, whilst the Unexploited eGovernment and Expandable eGovernment scenarios only count six countries altogether. This hints at some type of digital polarisation: countries display either high-performance on both indicators or low-performance on both indicators. Estonia and Denmark are the best scoring European countries in terms of eGovernment with high levels of both Penetration and Digitisation. On the other side, Greece demonstrates lower levels of performance for both of the absolute indicators.

Some countries scores substantially distinct from the EU average line: Italy (Non-consolidated eGovernment scenario), Romania (Unexploited eGovernment scenario), the United Kingdom (Unexploited eGovernment scenario) and Malta (Expandable eGovernment scenario). Italy stands out because of its lowest Penetration level in Europe (19%), whilst the Digitisation level is close to the European average. Romania has a medium-high Penetration level, combined with the lowest level of Digitisation (37%). In the same scenario, the United Kingdom distinguishes itself, characterised by Penetration performance being 20% higher than the EU28 average. Malta particularly exceeds the European average, having the highest level of Digitisation.

8.3. Step 2: Understanding the impact of context-specific variables on performances

8.3.1. Methodology

The second step of the benchlearning analysis identifies which exogenous factors ('relative indicators') influence country performance. This step also involves evaluating how such factors shape the specific context of countries.

A large number of relative indicators possibly influencing eGovernment performances was identified from several databases (Eurostat, the European Commission's Digital Economy and Society Index, Transparency International, World Bank, etc.). Each indicator was considered as a proxy for a specific exogenous factor that could relate to the Digitisation and Penetration performance levels.

After identifying the initial relative indicators, statistical analyses were performed to reduce the number of indicators (principal component analysis, stepwise analysis, multivariate and univariate correlations). Relative indicators that did not correlate with the absolute indicators (Penetration and Digitisation) were excluded. For example, the population of a given country is of primary importance for a wide range of analyses. Nonetheless, country populations did not significantly correlate with either Penetration or with Digitisation. In other words, population sizes did not appear to influence a country's performance in eGovernment. As goes for other noncorrelating indicators, population size was not included in the final list of relative indicators. The tables in Annex I show the complete list of the indicators taken into consideration during the statistical analysis described.

The selected indicators were clustered into three categories in order to explain country-specific performances from the perspectives of users, government and the digital context. Every category consists of a number of sub-indicators.

- User characteristics: citizens' ability and willingness to use online services. In this analysis users' characteristics are captured by indicators concerning Digital skills and ICT Usage.
- elements of how public organisations act and are organised that influence eGovernment performance. In this analysis government characteristics are captured by indicators that evaluate Quality and Openness of government actions and institutions.
- Digital context characteristics: exogenous factors that can offer a proxy of the digital readiness in terms of adoption of digital technology in a country. In this analysis digital context characteristics are captured by two indicators: connectivity characteristics and adoption of digital solutions in the private sector.

8.3.2. Users' characteristics that influence eGovernment performance

This indicator represents citizens' ability and willingness to use online services, and is captured by the following two indicators:

Digital skills: the Human Capital indicator from the Digital Economy and Society Index (DESI) measures the skills needed to realise the potential offered by a digital society. Such skills cover basic user skills that enable individuals to interact online and to consume digital goods and services, as well as advanced

- skills that empower the workforce to use technology for enhancing productivity and fostering economic growth.
- users, another indicator that is helpful to understand user characteristics is the overall level of ICT usage. The "Use of internet" indicator (part of the DESI) covers a variety of activities performed by citizens that are already online. Such activities range from consumption of online content (videos, music, games, etc.) to modern communication activities, online shopping and banking. One can imagine that if users do not use the internet at all, it is likely that they will not use the internet for requesting public services online.

8.3.3. Government's characteristics that influence eGovernment performance

Government characteristics indicators show how public organisations act and are organised that influence eGovernment performance. In this analysis, these characteristics are measured through the following indicators:

- Quality: this indicator aims at summarising in one number a proxy of governments' actions. Its components are:
 - Regulatory quality: a World Bank indicator that captures perceptions of the ability of the government to formulate and implement sound policies and regulations that allow and promote private sector development.

- Rule of law: a World Bank indicator that captures perceptions of the extent to which agents have confidence in, and obey to the rules of society, and in particular the quality of contract enforcement, property rights, police and courts, as well as the likelihood of crime and violence.
- Government effectiveness: a
 World Bank indicator that captures
 perceptions of the quality of public
 services, the quality of the civil
 service and the degree of its
 independence from political
 pressures, the quality of policy
 formulation and implementation,
 and the credibility of the government's commitment to such
 policies.
- Reputation: considers the reputation of the government. The selected indicator is "Perceived Corruption" calculated by Transparency International, which measures the perceived level of public sector corruption worldwide.
- These four indicators are highly correlated. Therefore, the Quality indicator was calculated as the average score of these four indicators.
- Openness: This indicator aims at identifying the openness of each country from an Open Government perspective, it takes into consideration two different aspects:
 - **Open data:** a DESI indicator that measures the extent to which

countries have an open data policy in place (including the transposition of the revised PSI Directive), the estimated political, social and economic impact of open data and the characteristics (functionalities, data availability and usage) of the national data portal.

 Voice and Accountability: a World Bank indicator that captures perceptions of the extent to which citizens are able to select their government, as well as freedom of expression, freedom of association, and free media.
 The Openness indicator has been computed as the average of these two indicators.

8.3.4. Context Characteristics that influence eGovernment performance

Digital context characteristics represent the digital infrastructure and private sector digitisation of a country, and include:

- Connectivity: the Connectivity indicator (DESI) measures the deployment of broadband infrastructure and its quality. Access to fast broadbandenabled services is a necessary condition for competitiveness.
- Digital in private sector: the Integration of Digital Technology dimension (from the DESI) measures the digitisation of businesses and their exploitation of the online sales channel. By adopting digital technology businesses can enhance efficiency, reduce costs and better engage customers,

collaborators and business partners. Furthermore, when the Internet is used as a sales outlet, it offers access to wider markets and potential for growth.

8.3.5. Relative indicators analysis

Following an approach similar to the one used for the absolute indicators (Penetration and Digitisation), the European average and the standard deviation are calculated for each relative indicator. This resulted in three categories of countries:

- **Low:** countries with a score lower than 34% below the average (μ δ: where μ is the EU28 average and δ is the standard deviation).
- **Medium:** countries with a score in between 34% below and 34% above the average (between μ δ and μ + δ : where μ is the European average and δ is the standard deviation).
- **High:** countries with a score higher than 34% above the average (μ + δ : where μ is the European average and δ is the standard deviation).

Figure 8.7 shows the geographical visualisation of each country for each relative indicator following the three clusters described above, as also captured in the table of Figure 8.8.

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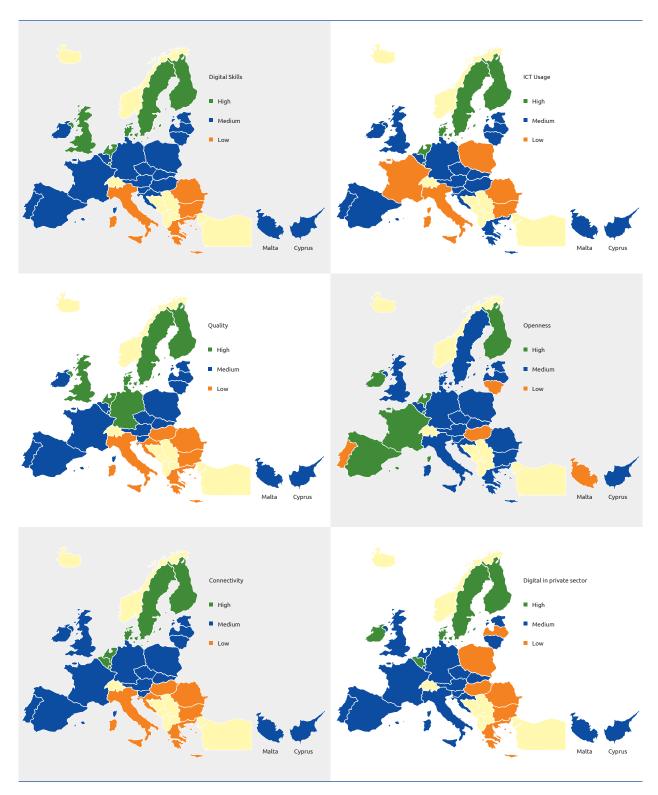


Figure 8.7: Geographical visualisation of relative indicators

	User chara	acteristics	Government o	haracteristics	Context characteristics			
	Digital skills	ICT usage	Quality	Openness	Connectivity	Digital in the private sector		
AT	Medium	Medium	Medium	Medium	Medium	Medium		
BE	Medium	Medium	Medium	Medium	High	High		
BG	Low	Low	Low	Medium	Low	Low		
HR	Medium	Medium	Low	Medium	Low	Medium		
CY	Medium	Medium	Medium	Medium	Medium	Medium		
CZ	Medium	Medium	Medium	Medium	Medium	Medium		
DK	High	High	High	Medium	High	High		
EE	Medium	Medium	Medium	Medium	Medium	Medium		
FI	High	High	High	High	Medium	High		
FR	Medium	Low	Medium	High	Medium	Medium		
DE	Medium	Medium	High	Medium	Medium	Medium		
EL	Low	Medium	Low	Medium	Low	Low		
HU	Medium	Medium	Low	Low	Medium	Low		
IE	Medium	Medium	Medium	High	Medium	High		
IT	Low	Low	Low	Medium	Low	Medium		
LV	Medium	Medium	Medium	Medium	Medium	Low		
LT	Medium	Medium	Medium	Low	Medium	Medium		
LU	High	High	High	High	High	Medium		
MT	Medium	Medium	Medium	Low	Medium	Medium		
NL	High	High	High	High	High	Medium		
PL	Medium	Low	Medium	Medium	Medium	Low		
PT	Medium	Medium	Medium	Low	Medium	Medium		
RO	Low	Low	Low	Medium	Medium	Low		
SK	Medium	Medium	Medium	Medium	Medium	Medium		
SI	Medium	Medium	Medium	Medium	Medium	Medium		
ES	Medium	Medium	Medium	High	Medium	Medium		
SE	High	High	High	Medium	High	High		
UK	High	Medium	High	Medium	Medium	Medium		

Figure 8.8: Country scores on relative indicators compared to European average

8.4. Comparing countries to understand and improve performance

8.4.1. Methodology and data analysis

The benchlearning perspective allows for exploring performance levels, similarities and differences in context, and eGovernment implementation across different countries. The purpose is to offer policy makers input to refine country-specific policies and eGovernment strategies.

In the following paragraphs, we provide interpretations of how relative indicators affect country's eGovernment performances in terms of Penetration and Digitisation.

Statistical linear correlation analyses were conducted between the relative indicators and performances levels of Penetration and Digitisation to understand how the relative indicators influence the performances of a country. The significance in statistical terms was limited, both because of the limited number of observations (28 countries) and because finding a direct correlation between single indicators and performances was limited.

For these reasons, the benchlearning exercise was based on a combination of qualitative and quantitative methodologies. All the relative indicators were individually correlated to the performances, thus allowing for a qualitative assessment.

Following the reasons highlighted above, the upcoming paragraphs contain the term 'positive correlation', using the term correlation in a comparative way, not in absolute terms. Whenever the explained variance of the performance indicator Penetration or Digitisation is more than 35%, the analysis refers to a 'small positive correlation'.

The quantitative analysis has been used in order to identify confidence intervals, allowing for situating underperforming and outperforming countries. In particular, when comparing relative with absolute indicators, three types of performance can be distinguished. These different types are based on the level of the absolute indicator compared to the European trend (Figure 8.9):

- Underperforming countries: countries for which the score on the absolute indicators is lower than the European trend.
- Average countries: countries for which the score on the absolute indicators is in line with the European trend.
- Outperforming countries: countries for which the score on the absolute indicators is higher than the European trend.

In order to distinguish the three different categories, a 99% confidence level for all intervals was chosen. In statistics, the confidence level measures the probability

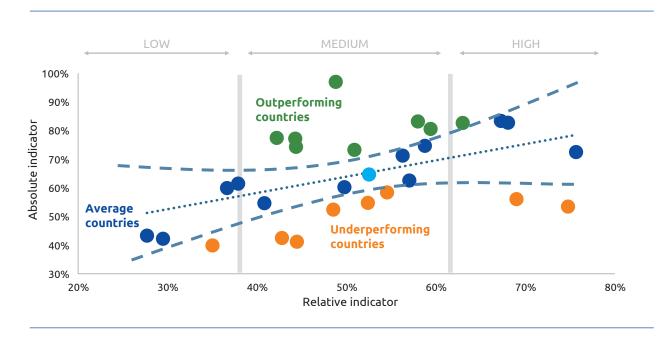


Figure 8.9: Mock-up visualisation of the performance clusters

for a parameter to fall within a specified range of values, defined between lower and upper lines.

In our analysis, the range is supposed to contain the values with a 99% of probability. If a country is outside of this range, it means that it does not fit the linear correlation model and that it was expected to perform better (Underperforming country, under the lower line) or worse (Outperforming country, above the upper line).

This approach is useful to compare countries and to observe whether there are countries with similar contextual variables but with different Digitisation and Penetration levels. Countries with a lower level of Penetration and Digitisation might then learn from countries with similar contextual variables but better performances in the two absolute indicators.

In the following sections each of the relative indicators and its correlation with Penetration and Digitisation is analysed.

8.4.2. Users characteristics' impact on eGovernment performance

User characteristics have been analysed through two indicators: Digital skills and ICT usage. These two indicators are used to analyse how citizens' ability and willingness to use online services relates to eGovernment performance.

Looking at Digital skills: the Digital skills within a country seem to have a positive correlation with Penetration (Figure 8.10). Zooming in reveals that there are four countries (Romania, Bulgaria, Greece and Italy) with a lower level of Digital skills. Despite the lowest level of Digital skills, Romania is outperforming with high levels of Penetration. On the contrary, Italy is underperforming: considering its Digital skills level, it was expected to have a higher level of Penetration. Looking at countries with a medium level of Digital skills, Latvia, Lithuania and Estonia are outperforming with Penetration levels slightly above the average. For Hungary, Poland, Czech Republic, Belgium, Germany and Malta are one would expect higher Penetration levels, given their Digital skills level. Six countries reach high levels of Digital skills.

Sweden and Denmark are outperforming, whereas the Netherlands, the United Kingdom and Finland show performances in line with the expectations and Luxembourg is underperforming in terms of Penetration, compared to its high Digital skills level.

Digital skills of the population also seem to have a small positive correlation with Digitisation (Figure 8.11). Amongst the countries with a low level of Digital skills, there are no underperforming countries. Instead, among the countries with a medium level of Digital skills, there is a wide variety of results: seven countries are outperforming on Digitisation (Latvia, Lithuania, Portugal, Spain, Malta, Estonia and Austria) and four countries are underperforming (Croatia, Hungary, Slovakia and Ireland). Focusing on the countries with a high level of Digital skills, there are no outperforming countries, while the United Kingdom and Luxembourg are underperforming. This means that the high level of Digital skills does not coincide with the expected high levels of Digitisation performance.

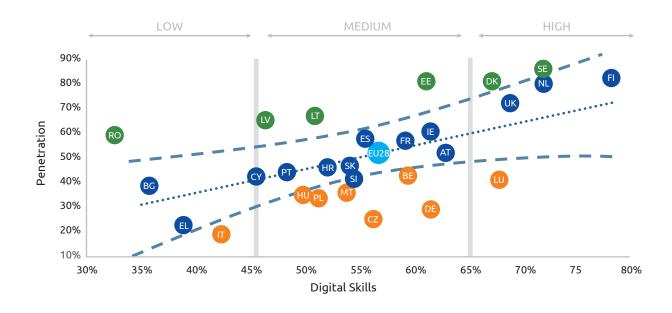


Figure 8.10: Digital skills vs Penetration

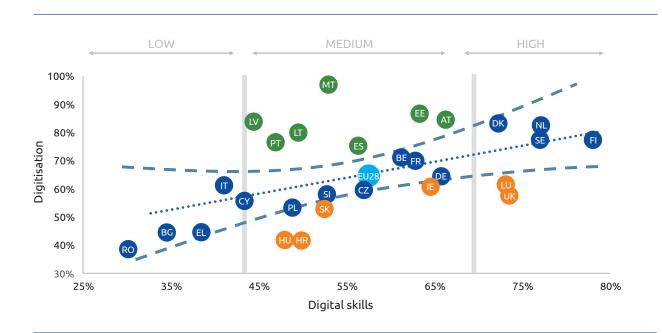


Figure 8.11: Digital skills vs Digitisation

Second, the analysis focuses on ICT usage. ICT usage of the population seems to have a positive correlation with Penetration (Figure 8.12). Only five countries have a low level of ICT usage. Amongst these countries, Romania and France are the outperforming countries, Poland and Bulgaria both perform in line with the average. From the countries with

a medium level of ICT usage, six countries are outperforming (Austria, Spain, Ireland, Latvia, the United Kingdom and Estonia). At the same time, there are many underperforming countries (Greece, Czech Republic, Germany, Cyprus, Belgium, Hungary and Malta). These countries do not necessarily have very low scores on Penetration, but one would have

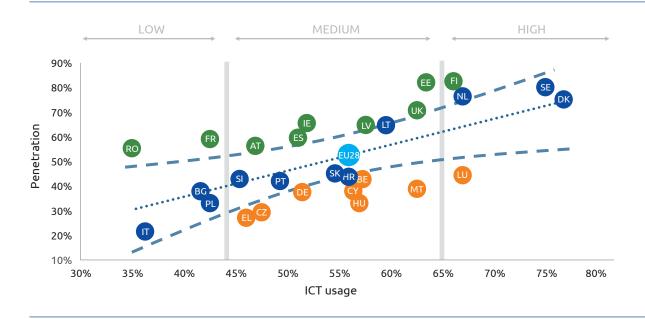


Figure 8.12: ICT usage vs Penetration

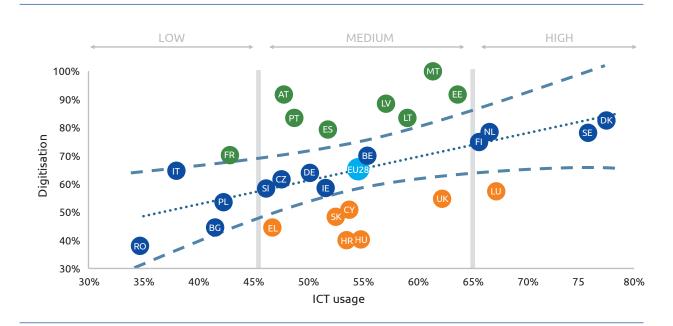


Figure 8.13: ICT usage vs Digitisation

expected higher scores given their level of ICT usage. Only Finland combines a high level of ICT usage and outperforming level of Penetration. In the case of Luxembourg, the high level of ICT usage goes along an underperforming level of Penetration.

ICT usage of the population also seems to have a small positive correlation with Digitisation (Figure 8.13). The countries with a lower level of ICT usage all record performances in line with the European trend, only France is outperforming. Among the countries with a medium level of ICT usage, there is a greater variability. On one hand, Austria, Portugal, Spain, Latvia, Lithuania, Malta and Estonia are outperforming (the Spanish and Latvian scores almost aligned with the confidence interval). On the other hand, Greece, Slovakia, the United Kingdom, Croatia, Hungary and Cyprus are underperforming. There are no outperforming countries with a high level of ICT usage. Luxembourg is underperforming on Digitisation with respect to its high ICT usage. Again, countries that are underperforming do not necessarily have very low Digitisation

scores, but we would have expected them to score higher given their level of ICT usage.

8.4.3. Government characteristics' impact on eGovernment performance

Government characteristics have been analysed through two indicators: Quality and Openness.

Quality has been calculated as the average of four different indicators (Regulatory quality, Rule of law, Government effectiveness and Reputation). These four indicators are highly correlated, probably because they all capture citizens' perceptions even though they refer to different aspects of governmental quality. The purpose of the relative indicator Quality is to summarise citizens' perceptions about government's quality as a whole. Quality seems to have a positive correlation with Penetration (Figure 8.14). Among the countries with a low Quality score, Romania is outperforming, whilst Italy is underperforming on Penetration. Considering countries with a medium level of Quality, Latvia, Lithuania, Spain and in particular Estonia are outperforming. On the other hand, Poland,

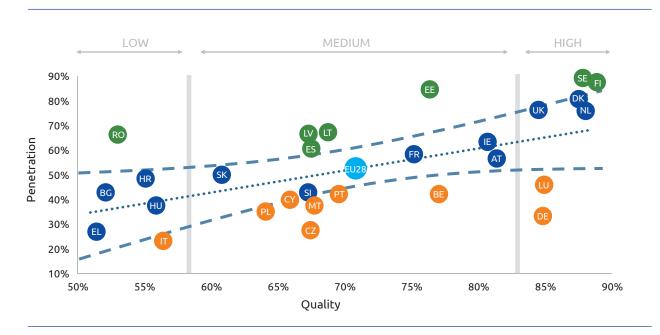


Figure 8.14: Quality vs Penetration

Cyprus, Malta, Portugal, Czech Republic and Belgium are performing less than expected on the basis of their Quality score. Sweden and Finland, with the highest level of both Quality and Penetration, are outperforming. Denmark and the Netherlands are just positioned within the confidence interval line, showing average scores. Luxembourg and Germany are the two underperforming

countries amongst those with a high level of Quality. Meaning, their high Quality score was expected to parallel with higher Penetration levels.

Quality also seems to have a positive correlation with Digitisation (Figure 8.15). Romania is the only underperforming country among those with a low Quality level. Considering



Figure 8.15: Quality vs Digitisation



Figure 8.16: Openness vs Penetration

countries belonging to the medium cluster, there is only one underperforming country (Ireland) and several outperforming countries (Malta, Latvia, Spain, Lithuania, Portugal, Estonia, Austria). Amongst the countries with a high level of Quality there are no outperforming countries and only three underperforming countries (Luxembourg, the United Kingdom and Germany). It is good to keep in mind that underperforming countries perform less than expected on the basis of their Quality score, but do not necessarily have very low Digitisation scores.

Openness takes into consideration two different indicators: Open Data (a DESI Indicator) and Voice and accountability (a World Bank indicator). Openness seems to have a small positive correlation with Penetration and no linear relation with Digitisation. Starting with the Penetration indicator, the

graph below (Figure 8.16) seems to show a small positive correlation. All countries with a low level of Openness perform on average, except for Lithuania, which is outperforming. Looking at the medium cluster of countries, heterogeneous scores were found. There are five outperforming countries: Latvia, Estonia, Sweden, Denmark and the United Kingdom (especially Estonia, Sweden and Denmark perform strongly above the confidence interval line. On the opposite end, there are seven underperforming countries within the medium scoring group: Bulgaria, Cyprus, Italy, Greece, Slovenia, Czech Republic and Germany. Finland is the only outperforming country amongst those with a high level of Openness. The other countries with high Openness scores perform in accordance with the expected level of Penetration.



Figure 8.17: Openness vs Digitisation

The Openness indicator does not show a positive correlation with Digitisation. Countries might decide to digitalise the front and back office of their public administrations, while at the same time they might not publish any open data or involve citizens in government's decisions. In this respect, the most exemplifying case is Malta, which has the highest level of Digitisation and (after Hungary) the lowest level of Openness. Figure 8.17 shows that the opposite is not taking place, potentially because countries are not likely to publish open data without having digitised their back and front offices, which constitute an essential precondition to collect and publish data. Moreover, open data seems one of the conditions that allows citizens to be involved in governmental decision making. In fact, the figure shows that the countries with the highest level of Openness

are all countries with a good level of Digitisation (France, Finland, Spain, the Netherlands, Luxembourg and Ireland). Nevertheless, medium countries in terms of Openness provide a more diverse picture: either highly digitised while lacking the implementation of openness policies (e.g. Estonia and Lithuania), or countries with lower levels of Digitisation still having openness polices in place (Greece, Poland, Bulgaria, Hungary and Romania).

8.4.4. Digital context characteristics' impact on eGovernment performance

Digital context characteristics have been analysed through two indicators: Connectivity and Digital in the private sector.

To measure the connectivity characteristics, the DESI's Connectivity index has been selected. The Connectivity index seems to have a small positive correlation with Penetration (Figure 8.18). However, there is a great variability of data.

Considering the countries with a low Connectivity level only Italy is underperforming. In the medium cluster, Estonia and Finland have reached high levels of Penetration, far above the confidence interval. Together with France, the United Kingdom, Ireland and Lithuania these countries are the six outperforming countries. On the contrary, Hungary, Poland, Cyprus, Czech Republic, Portugal, Malta and Germany are underperforming within the medium cluster on Penetration based on their Connectivity level. In the high cluster, Sweden is the only country outperforming, whereas Luxembourg and Belgium are underperforming.

A positive correlation can be discovered when relating Connectivity to Digitisation (Figure 8.19). All countries with a level of Connectivity below the European average are also countries with lower levels of Digitisation (e.g. Italy, Croatia and Greece).

Looking at the country performances, Bulgaria is the only country with a low level of Connectivity and underperformance just below the limit of range. Romania, Hungary, Ireland and the United Kingdom have a medium level of Connectivity, but they are underperforming in Digitisation. France, Spain, Estonia, Austria, Latvia, Lithuania, Finland and Malta, on the contrary, also have medium-level Connectivity, though outperform in Digitisation. Amongst the countries with a high level of Connectivity, only Luxembourg is underperforming. Although Luxembourg's Digitisation level is higher than 13 other European countries, its Digitisation score is expected to be higher based on the high level of Connectivity.

To measure digital in the private sector, the DESI indicator Integration of Digital Technology was used, which measures

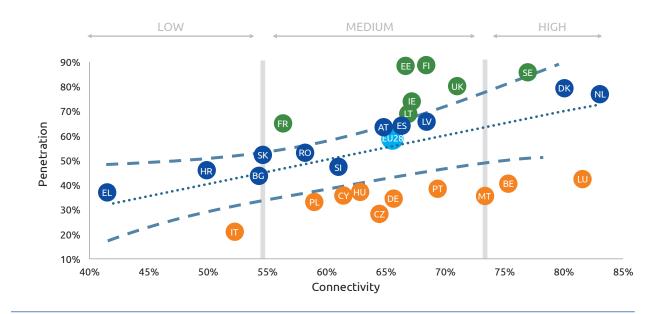


Figure 8.18: Connectivity vs Penetration

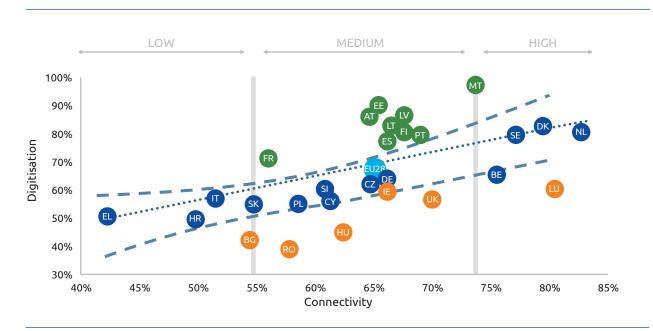


Figure 8.19: Connectivity vs Digitisation

the Digitisation of businesses and their adoption of online sales channels.

The relation of Digital in the private sector with Penetration is a small positive correlation (Figure 8.20). Amongst the countries with a low level of Digital in the private

sector, Romania and Latvia are outperforming, indicating that these countries obtained relatively high levels of Penetration for countries with relatively low levels of digitalisation in the private sector. Furthermore, Greece is underperforming, and the rest of the countries show

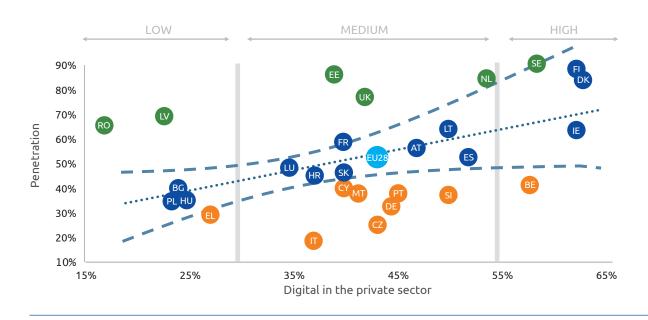


Figure 8.20: Digital in the private sector vs Penetration

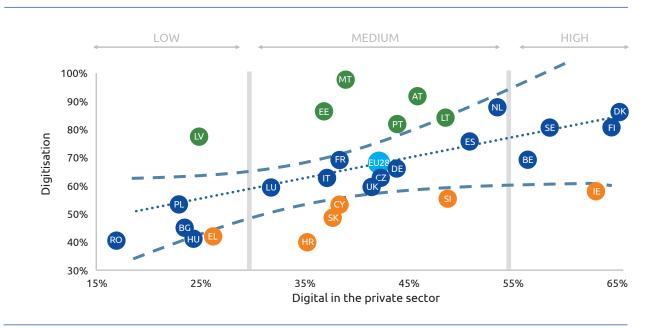


Figure 8.21: Digital in the private sector vs Digitisation

performances in line with the European trend. In the medium cluster, there are seven underperforming countries (Italy, Czech Republic, Cyprus, Portugal, Malta, Slovenia and Germany) and three outperforming countries (Estonia, the Netherlands and the United Kingdom). Looking at countries with a higher percentage of Digital in private sector, only Sweden is outperforming and Belgium is underperforming. Note that the underperforming countries do not necessarily score very low on Digitisation, but score lower than expected based on their Connectivity level.

Figure 8.21 shows the correlation between Digital in the private sector and Digitisation. Also, in this case there seems to be a small positive correlation. Interestingly, Latvia seems to have high levels of Digitisation as measured in the public sector, despite low levels of private sector digitalisation. From the

countries with low digital levels in the private sector, Greece is the only country underperforming. The medium cluster contains four underperforming countries (Slovakia, Slovenia, Czech Republic and Croatia) and five outperforming countries (Estonia, Malta, Portugal, Lithuania and Austria). Ireland is the only country with a high level of Digital in the private sector and underperformance in Digitisation based on this high level of private sector digitalisation.

8.4.5. The benchlearning perspective

The analysis shows that a digitisation process is driven by a complex mix of different factors. The development of eGovernment is correlated with the development of other factors concerning citizens' preferences and skills, governmental policies and digital context characteristics, such as the relation between public administrations and the private sector.

Although almost all relative indicators correlate with the absolute indicators, some correlations are stronger than others. In particular, the strongest correlations with the Penetration index are with both User characteristics (both Digital skills and ICT usage) and with the Quality indicators. Countries with more skillful citizens and more frequent daily internet users are also the countries with a widespread usage of eGovernment services. Although the benchlearning analysis does not allow for causal reasonings, this might hint at the value of awareness-raising and educational activities to potentially increase usage of online public services. In addition, Quality is a composite indicator of different factors, such as the perceived quality and effectiveness of public services and the corruption perception index. These elements reflect governmental actions. It seems that whenever citizens perceive public administration service delivery to be of high quality, they are more inclined to use online tools and public services. Trust might be the underlying mechanisms explaining this correlation. Whenever citizens trust their governments for providing qualitative services, they are more willing to share personal data requested with public authorities online, use online identification solutions and no longer feel the necessity to apply for public services offline.

Instead, the strongest correlations with the Digitisation index are with the Quality and Connectivity indicators. This indicates that countries with a high level of deployment and quality of broadband infrastructures are also the countries with a high level of qualitative online public services. Hence, it seems that ensuring fast broadband-enabled services allows public administrations

to share service related data more rapidly and process service requests with more speed, resulting in higher levels of Digitisation. As mentioned, Quality is a composite indicator representative of whether people are confident with the decisions and actions of public authorities. It therefore seems that whenever a country has high levels of Digitisation, such eGovernment performances are also reflected in the high-quality way that citizens perceive their government.

The benchlearning exercise offers the possibility for countries that are underperforming to compare themselves with other countries sharing similar contexts, in order to understand which policies and strategies can be implemented to increase their levels of Digitization and Penetration. In particular, if a country is underperforming it might look at countries that have the same set of relative indicators but reach higher performance levels. To illustrate: if a country is underperforming in Penetration, and it has been shown that this performance is related to Users characteristics (Digital skills and ICT usage) and to Quality, policies and strategies aimed at improving these specific indicators could be implemented. In a similar way, if a country is underperforming in Digitisation, it could further investigate policies and strategies fostering the indicators that are positively correlated to Digitisation, specifically by looking at good practices from outperforming countries.

The table in the Figure 8.22 shows the relative performance of each country for Penetration and Digitisation. Performance indications are given for each relative indicator, as well as an overall indication. This summarises the analyses provided in the previous sections of this chapter. Red cells indicate that a country is underperforming. Meaning, a country obtained a level of Digitisation or Penetration that was lower than expected on the basis of the relative indicator score. Blue cells show outperforming countries. In that case, the Digitisation or Penetration level was higher than expected on the basis of the relative indicator. Blank cells pinpoint countries with Digitisation and Penetration levels that were expected on the basis of the relative indicator score. To illustrate for the relative indicator Openness: Bulgaria was expected to reach a higher level of Penetration given its Openness score, and hence the respective cell is red. On the opposite, Denmark's Penetration level is higher than the expectations, looking at its level of Openness, marking this cell with blue.

The overall Penetration performance is defined as 'Underperforming' if the country is underperforming in at least 4 out of 6 relative indicators. Similarly, a country is labelled 'Outperforming' if it is outperforming in at least 4 out of 6 indicators. For Digitisation comparable rules apply, although the total number of relative indicators is five (Openness did not correlate with Digitisation), so the boundaries are set to 3 out of 5 relative indicators. Taking Bulgaria as an example again: although the country is 'Underperforming' in Penetration with respect to the Openness indicator, the other five relative indicators are at the average level. Therefore, Bulgaria is categorised as scoring "average" for its overall Penetration performance. An example for Digitisation is Spain: it is not only 'Outperforming' with respect to Digital skills, but also concerning ICT usage, Quality and Connectivity. Spain is 'Outperforming' in 4 out of 5 relative indicators and the overall performance on Digitisation is hence set as 'Outperforming'.

	Penetration						Digitisation							
	Digital skills	ICT usage	Quality	Openness	Connectivity	Digital in private sector	Overall	Digital skills	ICT usage	Quality	Openness	Connectivity	Digital in private sector	Overall
AT							Average							Outperforming
BE							Underperforming							Average
BG							Average							Average
HR							Average							Underperforming
CY							Underperforming							Average
CZ							Underperforming							Average
DK							Average							Average
EE							Outperforming							Outperforming
FI							Outperforming							Average
FR							Average							Average
DE							Underperforming							Average
EL							Average							Average
HU							Average							Underperforming
IE							Average							Underperforming
IT							Underperforming							Average
LV							Outperforming							Outperforming
LT							Outperforming							Outperforming
LU							Underperforming							Underperforming
MT							Underperforming							Outperforming
NL							Average							Average
PL							Average							Average
PT							Average							Outperforming
RO							Outperforming							Average
SK							Average							Underperforming
SI							Average							Average
ES							Average							Outperforming
SE							Outperforming							Average
UK							Outperforming							Underperforming

Figure 8.22: Penetration and Digitisation relative performances



Figure 8.23: Absolute and relative performances

Figure 8.23 shows the position of each country in terms of absolute performances (i.e. levels of Penetration and Digitisation) and relative performances (i.e. influence of contextual variables on absolute performance). The arrows in the figure signal that a country's score in either Digitisation or Performance is distinct from the scores that would be expected on the basis of its scores on the various relative indicators.

Clockwise: upward arrows indicate outperformance in Penetration, rightward arrows indicate outperformance in Digitisation, downward arrows indicate underperformance in Penetration, and leftward arrows indicate underperformance in Digitisation.

To exemplify: Estonia, Latvia and Lithuania are the outperforming countries in both Digitisation and Penetration, as shown

by the upward and rightward arrows. Finland, Sweden and Romania are outperforming in Penetration and perform on average on Digitisation. The United Kingdom is outperforming on Penetration but underperforming in Digitisation, looking at its level of relative indicators. Austria, Portugal and Spain are outperforming in Digitisation, and show average performance on Penetration. Taking into account the country characteristics of Malta, this country is outperforming on Digitisation but underperforming in Penetration. Bulgaria, Denmark, France, Greece, the Netherlands, Poland, Slovenia all perform in line with their characteristics (i.e. relative indicators). Belgium, Cyprus, Czech Republic, Italy and Germany are underperforming in Penetration given their country characteristics, while they perform in line in terms of Digitisation. Looking at Digitisation instead, Croatia, Hungary, Ireland and Slovakia are underperforming, while they are performing in line with Penetration averages. Luxembourg is the only country showing a relative performance below the European

trend, both in Penetration and in Digitisation. Although this country displays medium and high scores for all relative indicators, the levels of Penetration and Digitisation are lower than for countries sharing comparable contexts.

8.5. Improving the framework: considerations for future applications

The benchlearning exercise aims at supporting the understanding of a country's eGovernment performance with respect to other countries, and at suggesting possible ways to overcome potential gaps. To this end, countries were categorised according to their performance on a number of relative indicators relating to Penetration and Digitisation. Consequently, each country can compare itself to, and try to learn from, other countries displaying similar contexts that reach better performances. The relevance of elements introduced by this study does not annihilates the room left for improvement in future research.

Annex I: Relative indicators

Figure I.1: User characteristics

Dimension	Indicator	Indicator Year Description		Source	Data of extraction
ICT usage	Use of Internet as used in DESI	2017	The Use of Internet dimension accounts for the variety of activities performed by citizens already online. Such activities range from consumption of online content (videos, music, games, etc.) to modern communication activities, online shopping and banking.	Eurostat – ICT Households survey	June 2018
Digital Skills	Human Capital as used in DESI			Eurostat – ICT Households survey, Labour force survey and education statistics	June 2018

Figure I.2: Government characteristics

Dimension	Indicator	Indicator Year Description		Source	Data of extraction
	Regulatory quality 201		Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. This estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution.	World Bank	June 2018
Quality	Rule of law	2016	Rule of law captures perceptions of the extent to which citizens have confidence in and obey to the rules of society, and in particular the quality of contract enforcement, property rights, police force, courts, as well as the likelihood of crime and violence. This estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution.	World Bank	June 2018
	Government effectiveness 2016		Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. This estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution.	World Bank	June 2018
	Corruption Perception Index	2017	The Corruption Perceptions Index measures the perceived levels of public sector corruption worldwide.	Transparency International	May 2018
Opposes	Open Data as used in DESI	2018	This indicator measures to what extent countries have an Open Data policy in place (including the transposition of the revised PSI Directive), the estimated political, social and economic impact of Open Data and the characteristics (functionalities, data availability and usage) of the national data portal.	European Data Portal – Portal Maturity score	June 2018
Openness	Voice and accountability	2016	Voice and accountability captures perceptions of the extent to which citizens are able to select their government, as well as freedom of expression, freedom of association, and free media. This estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution.	World Bank	June 2016

Figure I.3: Digital context characteristics

Dimension	Indicator	Year	Description	Source	Data of extraction
Connectivity	Connectivity as used in DESI	2018	The Connectivity dimension measures the deployment of broadband infrastructure and its quality. Access to fast broadbandenabled services is a necessary condition for competitiveness.	Broadband coverage in Europe, Com- munications Commit- tee survey, Eurostat – ICT Households survey, DESI	June 2018
Digital in the private sector	Integration of Digital Techno- logy as used in DESI	2018	The Integration of Digital Technology dimension measures the digitisation of businesses and their exploitation of the online sales channel. By adopting digital technology businesses can enhance efficiency, reduce costs and better engage customers, collaborators and business partners. Furthermore, when the Internet is used as a sales outlet, it offers access to wider markets and potential for growth.	Eurostat – ICT Enterprises survey	June 2018

eGovernment Benchmark 2018

Annex II: long list of good practices

Albania – The electronic seal and the Public Administration Module

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations, Owning and driving a car

1. Good practice description

Citizens and businesses are now able to download official online documents with legal value from their PCs, due to the implementation of the e-seal on the e-Albania governmental portal for 33 documents. Queues, documents required from several offices, time lost, but also corruption have since then seen a drastic decrease. In addition, the e-Albania Module for Public Administration enables public employees to download these documents on behalf of the citizens, thus not asking them to attach these documents anymore to their online/offline applications for services. Anytime such a document is downloaded by public employees, it can be accessed via the "My Space" section on the user's profile on e-Albania. In one year, more than 2 million e-sealed documents have been downloaded by citizens/businesses/public employees.

2. Benefits

- \$500,000 has been saved on civil status certificates in one year since they are now offered free of charge electronically.
- 60 years of waiting time in queues has been saved in one year.
- 3 times less hardcopy documents have been printed out by the institutions providing the 33 documents in one year.

3. Key success factors

- Relevant legal and sub-legal acts that were adopted by the Council of Ministers Decision no. 495, dated 13.09.2017, "On the adoption of rules to benefit from electronic public services" cleared the way for the digital seal legitimation, giving legal validity to the administrative documents generated through the e-Albania portal.
- Willingness of the government and general directors of certain agencies to follow the approach of providing 1/3 of the 33 documents only electronically via the e-albania portal. 11 documents are not provided offline in physical counters anymore.

4. More information

More information can be found at: e-seal info: https://e-albania.al/Pages/Digital-SealHelp.aspx , https://e-albania.al/eAlbaniaServices/Packages.aspx?lvl=2&path_code=1039&cat_id=1039

Albania - Electronic Construction Permits

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations, Moving

1. Good practice description

The e-service, which is mandatory to be completed only electronically via the e-Albania governmental portal, has assisted greatly in the reduction of corruptive practices and has sped up the process. A variety of institutions cooperate electronically in the multifunctional system in giving an official answer within a deadline of 60 days. The core system of this e-service unifies the communication gateway of the relevant institutions thus establishing a paperless procedure, saving physical archive costs, as well as time for citizens and civic employees. Periodic reminder reports and tacit approval have elevated the institutions' responsibility and their transparency in taking decision and answering citizens, in cases when the processing deadline is exceeded. The e-service counts circa 10,000 applications in one year.

2. Benefits

- Disposes of at least 23,000 accompanying documents every month;
- The application is quicker and more accurate, since parts of the online form are pre-filled due to interoperability;
- The associated documents attached to the application form bear legal value due to the electronic signature and the permit in the end comes with e-signature as well.

3. Key success factors

- Willingness of the government to follow the approach of providing this e-service only electronically via the e-albania portal.
- Dedicated support of the responsible directory at NAIS in issuing e-signatures in time and providing support for them.

4. More information

Application for a construction permit on the e-Albania portal: https://e-albania.al/eAlbaniaServices/UseService.aspx?service_code=6093

Austria Electronic Health Record File (Elektronische Gesundheitsakte – ELGA)

Top-level benchmark

User centricity, Transparency, Cross-border mobility, Key enablers

Life event

General best practice (not in life events 2017)

1. Good practice description

ELGA is an information system that enables a secured access irrespective of location or time to important personal data concerning health (e.g. hospital discharge reports, laboratory findings, results of diagnostic imaging and medication data) for patients as well as healthcare providers such as hospitals, private medical practices, nursing homes and pharmacies (only) in the case of a medical treatment. ELGA is not a database where data are centrally stored, but rather a pointer system providing links to existing decentralized databases of healthcare providers at national level, thereby enhancing data security. Patients' rights to informational self-determination are key components of ELGA and patients have full control of their data via a centralised Access Control Centre. This enables them to expand or shorten access times, deny access to certain documents, or declare that certain data should not be included. Patients may also decide whether to opt out of ELGA entirely or to only participate in particular applications such as e medication services. As well as the Access Control Centre, centralised components of the system include a Healthcare Provider Index and Patient Index (unique identification and authentication of both are prerequisites for accessing ELGA) as well as internet portal and logging system, serving the documentation and traceability of the use of data (see screenshot below).

2. Benefits

- Improved and faster availability of medical information leading to a quality improvement of diagnostic and therapeutic decisions as well as treatment and care.
- Increase of the process and result quality of health services.
- Development of integrated care and a cross-sector interface management in public health.
- Maintenance of a balanced, high-quality and generally accessible healthcare.
- Strengthening of patients' rights, especially the right to information and the legal protection when using personal data.
- Contribution to the financial maintenance of the social security system.

3. Key success factors

- Highest data protection and security standards.
- eID key enabler: Mobile Phone Signature.
- Patient centeredness, transparency and user-friendliness.

4. More information

More information can be found at: https://www.gesundheit.gv.at/

Austria – FinanzOnline

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations (e.g. declaring VAT for sole proprietorships)

1. Good practice description

FinanzOnline is the no. 1 e-government service in Austria, which has received multiple international awards. It is free of charge and available 365 days a year, 24 hours a day. FinanzOnline facilitates the access to the Austrian tax administration for citizens and businesses as well as for the public administration. At the moment, FinanzOnline has more than four million users. Part of Finanz-Online is the national register of bank accounts (Kontenregister). User can monitor possible bank account through the LogData area and receive an additional message in FinanzOnline.

2. Benefits

- FinanzOnline works electronically and seamlessly.
- User receives tax returns faster.
- Transparency gains.

3. Key success factors

- User Centricity Platform solution
- eID accessible (mobile phone signature and citizen card)
- Service for businesses and citizens

4. More information

www.finanzonline.bmf.gv.at

Austria - Justiz 3.0

Top-level benchmark

User centricity

Life event

Starting a small claims procedure

1. Good practice description

The Austrian Judiciary system has implemented extensive e-justice services. Justiz 3.0 integrates Austria's Electronic Legal Communication (ELC) and Verfahrensautomation Justiz (VJ) into the Electronic Integration Portal to enable paperless file management. Implementing these systems within the court room improves the workflow of sharing evidence and information from multiple types of media. Starting in 2016, a pilot of Justiz 3.0 is running in several courts and is planned to be expanded in the coming years.

2. Benefits

- Increases efficiency for the users, and for the legal sector itself.
- Improves workflow, and therefor processing times of the legal system.

3. Key success factors

- Secure and efficient IT infrastructure, in terms of hardware and software.
- Trained personnel.

4. More information

More information can be found at: https://www.justiz.gv.at/web2013/home/justiz/aktuelles/aeltere-beitraege/2016/justiz-30--basis-fuer-papierloses-arbeiten~2c94848b5461ff6e01576bac60e54286.de.html?highlight=true

Bulgaria – National Revenue Agency

Top-level benchmark

User Centricity

Life event

Regular business operations

1. Good practice description

The e-services of the Bulgarian National Revenue Agency are easy to access through its front page. The e-services, which are promoted on the site, allow remote access to the most popular inquiries, documents and other services. The Agency provides a total of 176 administrative services. Most of them (125) are electronic and can be accessed via Qualified Electronic Signature (QES), Personal Identification Code (PIC), and a free access. The remaining 51 can be communicated in any electronic way.

The Portal for electronic administrative services provides for easy, fast and secure submission of Value Added Tax Act (VAT) declaration, registration of data for concluded/amended/suspended employment contracts, verification of social security instalments and many others.

2. Benefits

- Low administrative burden on businesses to pay their taxes and other contributions.
- Increased voluntary compliance.

3. Key success factors

- Fully electronic infrastructure.
- Clear strategy and recognition of value.
- High visibility and findability of the e-services.

4. More information

More information can be found at: http://www.nap.bg/page?id=319

Bulgaria — State e-Government agency – Personal data

Top-level benchmark

Transparency

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

The State e-Government agency provides two recently developed e-services in favour of the citizens, which are related to the access to their personal data. The first service allows them access to the data stored in base registers. Through the second one a person can inquire who accessed their personal data and to what purpose.

Furthermore, the State e-Government Agency has a software solution for prevention of misuse of personal data. The product is based on block chain technology, provides secure audit trail and protects the data in the state registers and the access to them, by recording any access to the personal data made through the Registry Information Exchange System RegiX.

2. Benefits

- Transparency and effective quality control of the data
- Reliable protection of personal data

3. Key success factors

- Fully electronic databases, accessible to the public administrations and the citizens
- Ensuring a clear audit trail for access to the personal data

4. More information

More information can be found at https://e-gov.bg/bg/143

Bulgaria — State e-Government agency – Key enablers

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

The State e-Government agency is successfully working to transform the public administrative services into intra-institutional electronic services by providing legal access to data in base registers. The Agency gives an opportunity for the public administrations to check electronically the corresponding circumstances and their electronic verification via the Registry Information Exchange System RegiX. As a direct result of using the RegiX system by the administrations, the number of requested certification documents on paper has decreased. Pursuant Governmental Decision, six of the most requested certification documents are entirely eliminated, as the administrations are checking the corresponding circumstances in the base registers through the Registry Information Exchange system RegiX. The number of requests for access to RegiX for a period of 12 months displays the tendency of steady growth. Requests made during the last month alone are around 800,000 with a tendency to increase in the future months.

2. Benefits

- Decreased administrative burden on citizens and businesses
- Complex administrative service delivery to the citizens and the businesses.

3. Key success factors

- Ensuring the implementation of the "once only" principle
- Intra-institutional data exchange between public administrations

4. More information

More information can be found at:https://e-gov.bg/bg/143

Croatia – eCitizen - Central state portal

Top-level benchmark

User centricity, transparency, key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

The e-Citizens central state portal was established with the aim of modernizing, simplifying and accelerating communication between citizens and the public sector and increasing the transparency of the provision of public services.

You can access the Services in the e-Citizens Central state portal if you have one of the valid credentials. One of the valid credentials is the eID issued for over 1.9 million Croatian citizens (which is almost half of the population of the Republic of Croatia).

There are currently 51 electronic services that are divided into the following topics: Legal State and Security, Family and life, Education, Traffic and vehicles, Active Citizenship, Finance and Taxes, Health, Work, Bussines management, Housing and the environment.

2. Benefits

- The Central State Portal is a unique place for access to public information and electronic services.
- The central purpose of the central state portal is to unify the information and electronic services of state institutions so that citizens can access the required information in the simplest way.
- Saves time and money for citizens.

3. Key success factors

- Fully electronic, available through the public Internet.
- Focused on users.
- Ease of use friendly interface.
- Displays all electronic services at one central location in one place.

4. More information

More information can be found at: https://gov.hr/e-gradjani/kako-postati-e-gradjanin/1553

Croatia – NIAS – National Identification and Authentication System

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

NIAS manages electronic identities in the national end user authentication system with public sector e-services. NIAS enables its users to successfully, safely and timely use public e-services, while at the same time releasing e-services from accounts management and authentication.

To access the NIAS system, you need to select one of a total of 17 different credentials (eID, ePass, mToken, bank tokens, personal certificates). Among them only ePass uses the username and password. The mToken (Android, iOS, Windows Phone) smartphone application uses a serial number to generate a one-time password that you type during login. You can opt for bank tokens as well as for e-banking services. You can also take out a personal certificate, which you will get an electronic ID card with the appropriate digital certificate. Registration students can use their login information to AAI @ edu.

2. Benefits

The basic task of NIAS is to provide secure and reliable identification and authentication to users who access the public electronic services through the appropriate credentials. In its work, NIAS only exchanges information that is necessary for unambiguous identification of users.

3. Key success factors

- Provides technical prerequisites for easy access to public electronic services.
- The expansion of authentication services is also foreseen for the public sector.
- Speeds up work and reduces lost citizens' time and business.

4. More information

More information can be found at: https://nias.gov.hr/

Croatia - OKP - Citizen personal mailbox

Top-level benchmark

User centricity, transparency, key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

A personal citizen mailbox allows each citizen, who has a valid National ID number, to receive personal official post related to public services, procedures (and their course), personal status, review, management, and storage. By doing so, the citizen will be informed about important situations and events related to personal legal rights and obligations and the use of personal data in the public sector.

2. Benefits

- Messages and notifications citizen can receive in your Citizen Personal Mailbox:
 - Expiration of ID card, passport, driver's license or vehicle registration
 - Polling station
 - Monthly salaries for employees in the public sector
 - · Rights from pension and health insurance
 - Rights during unemployment
 - Vaccination of pets
 - A new document or change in the espis system Judiciary eSystem
 - Calculated tax on income
 - Start blocking your account and unblocking your account
 - Birth and related (financial) rights
 - Losing and finding a job, status
 - Moving

3. Key success factors

- The personal mailbox is also available as a mobile app on Android, iOS (for iPhone and iPad) and Windows Phone platforms.
- Focused on users.
- Ease of use friendly interface.

4. More information

More information can be found at: https://gov.hr/e-gradjani/uvjeti-koristenja-osobnog-korisnickog-pretinca/1948

Cyprus - Grant Scheme Information System

Top-level benchmark

User centricity

Life event

Regular business operations

1. Good practice description

The Grant Scheme Information System is an online platform which allows all the legal residents of the Republic Of Cyprus to apply electronically for Grand Schemes. There are nine different Grand Schemes which are being proclaimed periodically by the Ministry Of Energy, Commerce, Industry and Tourism (MCIT) and Cypriot residents or their companies can apply.

Currently two out of nine Grant schemes are available electronically through the Ministry's website and via Ariadne Portal, namely the Grant Scheme for Female Entrepreneurship and the Youth Entrepreneurship. MCIT sets the criteria which every applicant has to meet in order to apply. The check on these criteria is performed online, via communication by the use of Web Services with other government systems such as taxation, social insurance, civil registry etc. Additionally, the application is tested by internal users-officers who evaluate the applications via the systems. Finally, the system enables citizens to monitor the progress of the applications which have been approved and can proceed to the payment of any amount according to the progress of implementation.

2. Benefits

- Online application No need for any manual documentation. All additional documentation (i.e. Licenses, degrees, work experience etc.) are submitted electronically.
- Faster submission of application.
- Online validation of the data submitted, online rating of the first part of the application. Officers need only to verify part of the data submitted.
- Faster final rating of the applications by the officers.
- Efficient monitoring of the progress of the approved applications.

3. Key success factors

- Commitment of the MCIT and the Department of IT Services of the Ministry of Finance to apply the Governmental Policy for eGovernment.
- Exploitation of the funds provided by the European Regional Development Fund.
- Willingness to provide better, faster and more efficient services to citizens.

4. More information

More information can be found at: https://www.fundingapps.mcit.gov.cy

Cyprus – eApplication for Recruitment in the Public Sector

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations

1. Good practice description

The eApplication portal is an online platform for submitting an application for recruitment for the advertised vacant posts in the public sector. The portal allows for bidirectional electronic communication between applicants and the Public Service Commission (PSC) which is responsible for the whole recruitment process as well as enabling applicants to track the progress of their application.

2. Benefits

- Online application No need for any manual documentation.
- Reduces the number of user errors when filling the application via automated checks
- Reuse of applicant data from previous applications (only after applicant's consent).
- Faster application submission.
- Instant creation of any managerial report needed after the deadline of a vacant post.
- Efficient monitoring of the progress of all applications received.
- Ability to accept additional applicant information when deemed necessary (such as Degree transcripts or previous employment records) electronically.
- Elimination of all manual interventions and necessary labour work (such as receiving applications, sorting applications, transferring applications to other third parties involved).

3. Key success factors

- The will of PSC's management to implement an electronic application system.
- Implementation of the necessary legislative changes.
- Good coordination between IT and PSC's project teams.
- Study of many other similar electronic application systems.

4. More information

More information can be found at: http://www.psc.gov.cy

Czech Republic – Base registries and personal data

Top-level benchmark

User centricity

Life event

Transparency

1. Good practice description

Base registries represent the central information source for sectoral information systems of public authorities. The base registries concept is based on the need of secure data sharing between thousands of information systems of public administrations. The system is based on the "once-only" principle as stressed in the European Union's eGovernment Action Plan 2016-2020. Besides contributing to higher efficiency of public administration – by the fact, that public officials do not need to cross-check accuracy and validity of data - the smoothly functioning registries speed up the whole process of service delivery, minimizing administrative burden while also saving time and money. Citizens and entrepreneurs can manage their requests to public administration much faster. Sharing personal data with private bodies is consent-based.

2. Benefits

- Changes in personal data are automatically recorded across public administration systems.
- State-guaranteed up-to-date data shared between all public administration.
- Transparency in practice: citizens and businesses receive information about what government body accessed their data and for what purpose.

3. Key success factors

- Compliance with the interoperability principles for successful exchange and reuse of public administration data.
- Ensuring of using "once only" principles.
- Citizens' consent to the sharing of data with other natural or legal persons.

4. More information

More information can be found at: http://www.szrcr.cz/

Czech Republic – The Citizen's Portal as the secure gateway to eGovernment services

Top-level benchmark

User centricity, Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

Citizens can access online government services from the new transactional part of the Public administration portal, the Citizen's portal. Following the cross-sector agreements, this portal will become a secure gateway to all digital government services. Citizens identify themselves using a new chip-based citizen identity card or the user account provided by the National identification and authentication authority. Central, regional and local public authorities work together to make the Citizen's portal a secure and user-friendly gateway to all on-line public services, including those provided by other EU public administrations.

Examples of government services that are available at the Citizen's portal:

- Tax related services;
- Legally valid excerpts from the criminal record registry and other public registries;
- Information on person's history of paid sick leave during their working career;
- Provision of the no-debt certificate;
- ePrescription;
- Social security and benefits-related information and services, including the information on state pension (i.e. calculation, eligibility, claiming and deferring).

2. Benefits

- Federation of several sectoral portals into one government portal to ensure user-centricity of services.
- Compliance with the eIDAS regulation.
- Implementation of chip-based citizen identity card as the highest identity assurance level.

3. Key success factors

- Whole government cooperation in service design and delivery to have more digital services available.
- Achieving better take-up of digital services by the citizens.
- Involving service users in online service design and decision making.

4. More information

More information can be found at: https://www.gov.cz/obcan/

Denmark- Motor Styrelsen

Top-level benchmark

User centricity, Transparency

Life event

Owning and driving a car

1. Good practice description

Per July 1st, 2018, this Agency's task is to ensure that all vehicles in Denmark are properly registered and that the processes of valuation and taxation are transparent. These tasks were previously the responsibility of SKAT Motor but now have their own board. Citizens will need the board when they re-register a car, import a car or need to purchase license plates. The Motor Agency also manages car lease, which has grown considerably in recent years. In the long run the Motor Board will improve the customer experience even further by developing more digital solutions for the benefit of citizens and businesses.

2. Benefits

- Improving customer experience by developing digital solutions.
- Improves the functioning of the Danish car market.
- Correct and effective registration and tax calculation of all vehicles.

3. Key success factors

- Dedicated board focusing on vehicles.
- Specialist employees.
- Transparent processes.

4. More information

More information can be found at: https://www.motorst.dk/aktuelt/nyheder/fokus-paa-hoej-faglighed-og-god-service-i-motorstyrelsen/

Estonia – Eesti.ee Personal Data Service

Top-level benchmark

Transparency

Life event

Family life, Losing and finding a job

1. Good practice description

Estonian citizens can view who has used their personal data and when, straight from the Eesti.ee portal. Queries from the Population Register and the eHealth Information System are included in such a way that request by institutions show up within max a day of when the request was made. These databases contain information on births, deaths, marriages, divorces, residence changes and the recipes the citizens have received.

2. Benefits

- Clear portal where citizens can view their own information.
- Overview of when institutions as municipalities, state, private sector, physicians or pharmacies access their data.

3. Key success factors

- Fully electronic, centralized databases accessible by institutions and citizens.
- Enforcement of the Personal Data Protection Act, the Public Information Act and the Electronic Communication Act by the Estonian Data Protection Inspectorate.

4. More information

More information can be found at: https://www.eesti.ee/est/teenused/kodanik/riik_ja_kodanik/rr_aj_teenus

Estonia – Road administration e-service portal

Top-level benchmark

User centricity, Key enablers

Life event

Owning and driving a car

1. Good practice description

The Estonian Road administration has its own dedicated e-service portal, where e-services related to owning and driving a car can be found easily. The portal distinguishes between services related to the vehicle, the driver, the road, and public transport. On the vehicle sub-page you can view vehicle data, complete vehicle purchase and sale, temporarily delete the vehicle from the register, modify users, order a registration certificate and mark. On the driver's sub-page, you can view data about your driving license, apply for documents (driver's license, driver's certificate, digital tachograph driver card, etc.), register for examinations. On the road sub-page, you can apply for a special carriage permit for heavy and / or heavy goods and check the details of the special permit issued previously.

2. Benefits

- Improved customer experience.
- Easy access to e-services.
- Identification trough eID.

3. Key success factors

- Possibility to register using eID.
- All vehicle related services available on one portal.
- Clear navigation structure on the portal.

4. More information

More information can be found at: https://eteenindus.mnt.ee/main.jsf

Finland – Information sorted into Life events

Top-level benchmark

User centricity

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure.

1. Good practice description

The Suomi.fi web service provides a single point of access to eGovernment services, citizens own information and electronic messages. The portal can be accessed using all terminal devices (computer, tablet, mobile). Information is sorted into life events and practical instructions and resources help the user move on the service path independently. Access to the services as well as information on the service are available. Information on the service includes details on:

- who the service is intended for
- who is responsible for the service and who provides it
- where and how the service can be obtained

2. Benefits

- Information on services can easily be found for citizens and businesses.
- Services can easily be obtained.
- Single point of access for eGovernment services, personal information and electronic messages.

3. Key success factors

- Information sorted into life events
- Button to see services that can be obtained for each life event
- Available for both citizens and businesses.

4. More information

More information can be found at: https://www.suomi.fi/about-suomifi-web-service

France – FranceConnect, a safety system of identity and authentification

Top-level benchmark

User centricity, Transparency, Key enablers

l ife event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure.

1. Good practice description

Although in the past years a lot of administrative procedures have been digitized and are accessible through web portals, the users have to repeatedly provide the same information to complete their procedures.

France Connect Identity provides a secured and simple way to connect to any public service without the need to recreate new logins and passwords.

France Connect Identity linked with API.GOUV.fr allows information sharing between various administrative entities once the user has been authenticated with FranceConnect. See more about State as a platform: https://api.gouv.fr/

2. Benefits

- Single access to all the e-services
- Users choose their Identity Provider
- No need to remember many identifiers and passwords
- Service Provider gets the verified information of the user identity
- A solution to develop the use of line services
- 6,5 millions users (september 2018); 10 millions users by end of 2018
- 380 uses case

3. Key success factors

- Co-construction
- User centric
- Agile method
- A portal for partners: the service providers are autonomous for implementation: https://partenaires.franceconnect.gouv.fr/
- Eidas compliant
- Integration of several levels of identification included "MobileConnect" solution
- FranceConnect opened to private sector, October 2018

4. More information

More information can be found at: https://partenaires.franceconnect.gouv.fr/

Germany – GOVDATA

Top-level benchmark

Transparency

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

GovData is a data portal for Germany, which provides a uniform, centralized access to administrative data from federal, state and local governments. The goal is to make this data discoverable and easier to use. In particular, administrative employees, citizens, companies and scientists are given the opportunity to access data and information of the public administration in Germany across all levels via a central entry point. The goal is to make better use of these "data assets" from the administration and to reuse them so that new insights, combinations and analysis can be used to gain new insights from existing data and to open up new fields of application.

2. Benefits

- Provides centralized access to administrative data from federal, state and local governments.
- Allows better use of "data assets" from the administration.
- Increases transparency regarding the German public administration.

3. Key success factors

- Regular upload of all relevant information.
- Structured and secure storage as well as easy findability.

4. More information

More information can be found at: https://www.govdata.de/

Germany - BayernPortal

Top-level benchmark

User centricity

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

The BayernPortal is a central platform with information about and access to many administrative state and local online services. Individual user accounts for citizens and companies will be used as identification components that allow a simple handling of administrative services. User accounts can be used to store relevant information, so that this information does not need to be re-entered whenever another online service is used. In addition, safe electronic communication with the competent authority is simplified.

2. Benefits

- Citizens and companies receive information directly, quickly and easily.
- Improved electronic access to many administrative state and local online services.
- Safe electronic communication and information transfer.

3. Key success factors

- Effective cooperation as well as uniform content and service offerings.
- Design and implementation of compatible back-end and front-end platforms.

4. More information

More information can be found at: https://www.stmflh.bayern.de/digitalisierung/bayernportal/

Germany - EKONA

Top-level benchmark

User centricity

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

EKONA is a tool, which can be used to verify the digital identity of citizens and businesses. It is inspired by already proven online shopping processes to ensure easy use. Like Paypal for online shopping, EKONA can be implemented as an external identification service on websites of various online services. When clicking on this service, users will be redirected to the website "My ELSTER" of the German financial office portal. There, users can log into their often already existing user accounts (since it is used by many to declare their income tax). ELSTER then checks the personal ELSTER certificate (for citizens this includes daily updated data from the registration register) and sends the identification result to the previously used online service.

2. Benefits

- Easy access to eGovernment services through login option.
- Use of the largest existing user database in German eGovernment.
- Comprehensive use of the proven and secure ELSTER access method, used by millions of citizens and businesses.

3. Key success factors

- Effective integration of EKONA in existing and new online services.
- Broad user base.

4. More information

More information can be found at: https://blog.elster.de/wordpress/kolibri/

Greece – Electronic Application for registration certificate for citizens of EU

Top-level benchmark

User centricity, Cross-border

Life event

Moving

1. Good practice description

The Electronic Application for a registration certificate delivered to citizens of EU member states, and the Electronic Application for the registration certificate of EU citizen's family members are online services. These online services have been developed by the Information Technology Division/Hellenic Police Headquarters in cooperation with government officials, for the better and faster service of the EU citizens. The online application form gives European Member State citizens the opportunity to apply online at the police authorities. When the relevant authorities have received the application, they inform the citizens about the procedures they have to follow and the documents needed. This is an improvement in efficiency, as citizens spend less time to obtain services. In general, there is a successful cooperation between the citizens of the Union and the police authorities. Last but not least, the fact that police authorities in Greece are responsible for this procedure helps the police to have a precise idea of the number and identity of the citizens of the Union living on the Greek Territory.

2. Benefits

- Improvement of service of citizens.
- Time saved using the service.

3. Key success factors

- Preparation of human resources.
- Technological infrastructure.

4. More information

More information can be found at: https://portal.astynomia.gr/webcenter/portal/digitalServiceElas/Citizens%20Asylum?_afrLoop=78525716661702983#!%40%3FafrLoop%3D78525716661702983%26 adf.ctrl-state%3D4dytlhma 21

Greece - A root-and-branch reformation of the business model of DTC

Top-level benchmark

User Centricity, Transparency

Life event

Owning and driving a car

1. Good practice description

The business model of DTC in the Region of Crete formed the basis for a reform of the services provided by the Directorate of Transport and Communications (DTC). The DTC has developed a Strategic Plan that outlines the main steps towards the utilization of an Organizational Change Management Process, based on Quality of Service, Transparency and Efficiency. A people-focused workplace was created, providing reception desks, ergonomic working stations and a transparent public service environment. Furthermore, 100.000 folders where digitized, containing approximately 4 million pages. The digital archive is now a vital part of DTC's automated processes. Business Process Reengineering (BPR) included the creation of new application forms and work instructions, integrating dynamic QR Code generation for a seamless integration in the new processes. Some examples of IT applications that were developed: Web portal (mobile friendly), Appointment Service, Smart queue for citizens, Interactive touch screen information systems, Citizen management, Business Intelligence / Analytics for managers, Notification Screens in DTC's waiting areas, Physical record tracking and assignment system, System Administration, and Content Management System.

2. Benefits

- Performance metrics, real time operational status on every day transactions to assist decision-making.
- Optimization of the customer service workflow.
- Elimination of standing queues and significantly decreasing waiting times.
- Transparency by tracking case assignment to civil servants and automatically assigning citizens to available service desks.
- Dissemination of the practice in any regions of Greece interested in it and other member states of EU.

3. Key success factors

- User-centered design that included the employees in every stage of the design and development process, taking into account their needs and requirements.
- Training sessions were conducted which contributed to building up employee confidence and trust for the developed services.
- Elicitation and evaluation sessions, with the participation of all stakeholder groups, in order to influence the decision-making process.
- Evaluation sessions on every major product development, using mock-up designs, usage scenarios and unsupervised system usage sessions.

4. More information

More information can be found at: http://gdme.crete.gov.grand http://www.ics.forth.gr/_pdf/hci_leaflets/HERQUEUELESS.PDF

Greece-Vehicle Arrival Declaration

Top-level benchmark

User centricity, Cross-border

Life event

Owning and driving a car

1. Good practice description

Vehicle Arrival Declaration (VAD) is the electronic document stating the arrival in the country of one or more vehicles from other Member States of the European Union. The VAD is submitted electronically by the person who will make the entry of the vehicles within the country in order to start the necessary procedures with the nearest Customs Authority. The electronic submission of VAD is available on the portal of the Customs Service and is accessible from private citizens or authorized customs agents using their tax registration codes.

2. Benefits

- Reduction in the workload of traders and customs officers.
- Cost and time saving for the traders due to the ability to electronically submit the VAD from their establishments.
- Enhancing transparency in trade.
- Instant export of statistical surveys.
- Significant support for customs controls and internal audits.

3. Key success factors

- User friendly Information System.
- Reliable and efficient Data Center.
- Continuous technical and business support to both internal and external users by experienced Helpdesk Team.

4. More information

More information can be found at: https://portal.gsis.gr/portal/page/portal/ICISnet

Hungary – Online Annual Reporting System

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations

1. Good practice description

The new Online Annual Reporting and Form Filler System (OBR) launched in December 2016 has been developed within a larger project that focused primarily on data cleansing in databases. However, its priorities also included further development of e-government services with the aim of further simplification and increasing user centricity of electronic administration – in this case the introduction of an online form filling application for submitting the annual reports of businesses. Compared to the previous solution based on submitting PDF files, with the new OBR service all types of balance sheets and income statements are compiled online through an intelligent form, that automatically helps avoiding mistakes and misspelling, and data can immediately be stored and published ready for re-use. The solution supports pre-filling of data already to be found in other base registries (for example the Business Register), and the automated checking prevents the submission of erroneous reports. The OBR is also capable of directly importing reports from accounting software.

2. Benefits

- Annually 450 thousand reports submitted online.
- Approximately 200 types of intelligent online forms, dynamically compiled according to the law.
- Some 2500 types of validations and 1200 kinds of calculations.

3. Key success factors

- The new technology has enabled provision online forms for accountants, which do not need installing any third party applications, and that are automatically updated so that in every case the latest form can be filled without having to pay special attention.
- With the built-in validations and calculations the online forms can actively help the accountants in compiling and filling in the annual reports.
- The submitted reports are published automatically within a few minutes on the website of the Ministry of Justice, and then are accessible to anyone without registration.

4. More information

More information can be found at: https://e-beszamolo.im.gov.hu/ebekuldes

Iceland – Change of address

Top-level benchmark

User centricity

Life event

Moving

1. Good practice description

The 'Change of address' service from Registers Iceland enables citizens to notify their government on a new residence in Iceland. The service is fully available online. Citizens can securely identify themselves using one of their national eIDs (Icekey or Digital certificates).

2. Benefits

- Fast: address changes are valid in 1 day and confirmed by email.
- User friendly: online chat functionality available for additional support.
- Multilingual: service information available in both Icelandic and English.

3. Key success factors

- All municipalities can connect to the 'Change of address' service, 70% have already done so.
- Address changes become directly available in the Icelandic National Population registry.

4. More information

More information can be found at: https://www.skra.is/english/individuals/me-and-my-family/change-of-address/

Italy - pagoPA

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

PagoPA is the centralized node for public payments. Citizens are able to pay taxes, university fees and school meals, fines and TARI (the municipal waste tax), plus many other services provided by the public administration, with a credit and debit card – just like on any e-commerce site. Citizens are able to save the payment preferences so that payments can be made quickly, with a single click. PagoPA allows PayPal, Satispay, as well as Masterpass and Jiffy (Bancomat Pay) to offer their services.

2. Benefits

- As of June 30, 2018, there were about 10.5 million transactions the total value of which was equal to €1.5 billion, with an increase of 240% and 358% respectively, as compared to the same period of the previous year.
- Over the last two trimesters of 2018, 92% of the total value of the previous 36 months transactions was achieved.
- On the average, the platform processes about 1 million transactions per month for a value of more than € 150 million.

3. Key success factors

- It allows public administrations to manage payments in a centralized way;
- It offers automatic reconciliation of collections;
- It reduces transaction and process costs: settlement in D+1 (working day following payment) directly from treasury accounts.

4. More information

More information can be found at: https://teamdigitale.governo.it/en/projects/digital-payments.htm

https://teamdigitale.governo.it/en/projects/digital-payments.htm#the-data

Italy – ANPR (Anagrafe Nazionale della Popolazione Residente)

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

ANPR, the National Resident Population Registry is a key component of Italy's digital agenda. ANPR is the centralized registry which unifies more than 8,000 registries spread over the entire national territory (in every municipality). It is a single national database designed to combine the demographic data of all Italian residents, including those living abroad (registered at the Italian Register of Foreign Residents – AIRE). As a platform, ANPR represents an advantage not only for municipalities, in terms of effectiveness, efficiency and savings, but also for citizens, making their lives significantly easier when dealing with local administrative matters. At full capacity, the ANPR platform will process changes of residency in real time with no need of notification neither to other municipalities nor to concerned administrations such as the Motorizzazione Civile (Driver and Vehicle Licensing Agency), INPS (Social Security National Institute) and ISTAT (Office of National Statistics).

2. Benefits

- A unified national database speeds up self-certification procedures by shortening and automating all processes around data management.
- It allows public administration to internally share data creating a single and reliable source for citizens' data.
- It already allows citizens to request official certificates in all municipalities, making the change of one's residence simpler and immediate.
- In a near future, it will be possible to obtain certificates from a single portal regardless of one's residence.

3. Key success factors

- An operative role taken by a technical counterpart to lead the development and project strategy.
- An effective communication with the stake holders, including municipalities.
- A radical transparency on project numbers, issues and roadmap, achieved using public dashboard (http://stato-migrazione.anpr.it) and well known open source tools (https://github.com/italia/anpr);
- To speed up the migration in ANPR, each municipality, which has already migrated or will migrate in the period between 6 December 2017 and 31 December 2018, is eligible for a contribution from €1,000 and up to €7,000, depending on the number of residents. Funding- over €14 million is provided through the European Regional Development Fund http://www.pongovernance1420.gov.it/it/tag/anpr/

4. More information

More information can be found at: https://teamdigitale.governo.it/en/projects/anpr.htm https://teamdigitale.governo.it/en/projects/anpr.htm#the-data

Italy - the Public Service Design Kits

Top-level benchmark

User centricity

Life event

Family life, Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

The Public Service Design Kits introduce a method of work based on user research, the rapid exploration of solutions and the development of effective and sustainable products. The Public Service Design Kits strongly push towards higher standards, providing interface components and code to help and save time to the country's thousands of administrations. The 14 kits cover all aspects of a service design process, from research to user interface, from prototyping to development and each kit offers different advantages. The kits were developed by the Designers Community, the community born to disseminate a culture of design in digital services. The same principles and guidelines are applied to improve the user experience of PagoPA (the Public Administration digital payment system, SPID (the digital identity system), Italian school websites, and to develop a prototype for a new ID card appointment service.

2. Benefits

- They are common tools to be used in hundreds of projects and to implement hundreds of different services: everyone can use them and everyone will have the opportunity to learn from the examples of others. This makes the design system sustainable.
- They are open tools: everyone can build and improve upon them. Each new public administration service will be able to contribute towards enriching the design system available to everyone. This makes the design system expandable.
- They are designed for public services: they include specific examples and are tailored to fit the typical application needs of a public administration (and are often documented on the blog of Designers Italia).

3. Key success factors

- They are updated: they constitute the complement to the design guidelines and are maintained and updated accordingly.
- They are put to the test continuously: Designers Italia professionals are the first to use the kits on a daily basis. In doing so, they are able to measure their effectiveness and completeness.
- They are tested with actual users: because they are used in different projects, they benefit from tests and from other feedback we collect every day. This makes the design solutions adopted in the design system effective.

4. More information

More information can be found at: https://teamdigitale.governo.it/en/projects/designers.htm

Latvia –Road Traffic Safety Directorate's (CSDD) digital services

Top-level benchmark

User centricity

Life event

Owning and driving a car

1. Good practice description

CSDD is creating special digital services for citizens and businesses located in Latvia, to manage their vehicles simply and fast. It includes services related to driving licenses, fines and other services related to vehicle and driver. The main benefit is that a user gets all the information and possibilities in one place, online. CSDD uses innovative technologies such as push notification, specific and simple to use award-winning design, and the possibility of online payments.

2. Benefits

- Citizens have a possibility to get the services on a 24/7 basis, online. As a result, in most situations a citizen has a possibility to resolve issues related to vehicles, fines, driving licenses from any place using his personal computer, or any mobile device without visiting the local CSDD office.
- The popularity of online CSDD services is proven by the fact, that 1/3 of Latvian citizens and 80% of Latvian drivers are E.CSDD.LV registered users.

3. Key success factors

- The interface of E.CSDD.LV services is simple and user-friendly.
- Convenient for clients.
- Amount of available services the possibility to perform a variety of activities within one place. Exchanging the owner of the vehicle, making a payment for different services related to the vehicle and its owner, the opportunity to apply for a drivers exam is available online.

4. More information

More information can be found at: https://www.csdd.lv/, https://e.csdd.lv/

Latvia – eParaksts mobile

Top-level benchmark

User centricity, Cross-border mobility

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

eParaksts mobile is a modern and secure tool for smartphone users to certify their e-identity with an e-signature in a digital environment on the portal eParaksts. It or in other information systems across the European Union. This can be used for authentication for e-services and for electronic signature of documents. With eParaksts mobile it is possible to electronically sign documents and to certify the e-Identity in Latvia and other European Union countries where this opportunity is provided. eParaksts mobile is available for free on both iOS and Android operating systems for smartphones.

2. Benefits

- Comfortable and intuitive mobile application.
- Available for free on both iOS and Android operating systems for smartphones.
- Available anywhere in the world.

3. Key success factors

- The solution had real use immediately signing of documents on the portal eParaksts.lv. In the first three months this solution was already integrated into the country's largest e-service platforms www.latvija.lv and the State Revenue Service`s e-service portal.
- An ever-increasing number of e-service and e-mail providers has created a demand for this kind of service.

4. More information

More information can be found at: https://www.eparaksts.lv/en/

Latvia – first virtual assistant in public administration UNA

Top-level benchmark

User centricity

Life event

Regular business operations

1. Good practice description

The Register of Enterprises of Latvia unveiled the virtual assistant UNA (Uzṇēmēju Nākotnes Atbalsts – Latvian, Entrepreneurs' Future Support), which support the customers of the authority and work in the web environment of the Register of Enterprises and will be available also on the Facebook messenger app. The goal of the virtual assistant is to provide customers with answers to frequently asked questions about the registration of new merchants, companies and organizations, as well as company liquidation and the progress of the processed documents. UNA is an efficient communication tool and a public administration service that involves an innovative customer service solution in Latvia which constantly learns new information about topics that interest our customers.

2. Benefits

- UNA is a client-centric tool available at any time of the day, works well without holidays, and uses intelligible and simple, at the same time a business communication style. On June 13, 2018, UNA began activity and currently has answered 18,000 questions to 3,000 unique users, using 400 answers. UNA works in responsive design.
- Provide customers with answers to frequently asked questions about the registration of new merchants, companies and organizations, as well as company liquidation and the progress of the processed documents. This pilot project is an example for confirmation of functionality of new tools in the interests of customers and allows to save on financial and human resources.
- UNA learns intensively from communicating with clients and continually expands areas of expertise.

3. Key success factors

- Total length of the implementation is 7 months. The cost of UNA technical solution EUR ~10,000. It is estimated that the cost of the virtual assistant will be repaid within one year.
- Customers are innovative and use modern technologies in obtaining services, submit registration applications electronically, therefore they are also open to contact UNA.
- UNA has been developed by language technology company Tilde, which specializes in multilingual AI solutions.

4. More information

More information can be found at: www.ur.gov.lv , https://www.facebook.com/ uznemumureg

Luxembourg - Transparency

Top-level benchmark

Transparency, User centricity, Key enablers

Life event

Regular business operations, Moving, Owning and driving a car

1. Good practice description

In Luxembourg, the Transparency principle is implemented¹, among others, in the eGovernment web portal Guichet.lu² via the services proposed by the personal space of My Guichet.lu³. The functionalities of the portal allows citizens and businesses to access their data in a transparent way, to verify its correctness, to amend them directly online, to check who has accessed them and when, to ask the organisation that has accessed the data to establish the legitimacy of their access, to reuse the data in the context of procedures (OOP), to keep an overview of all their procedures (completed or active) and to stay informed on their ongoing procedures.

2. Benefits

- The Portal allows citizens to electronically consult their own personal data held by public administrations and check at any moment who has consulted their data and when
- Simplification and optimization of treatment processes; Data stored in public registers can be consulted and amended at any moment by the users themselves through their online access to the system: leads to higher data quality.
- Users can keep an overview of all their procedures (completed or active) and stay informed on their ongoing procedures;
- ~15 exact sources can be accessed and their data be reused via prefilling (Front Office OOP) or via back office reuse (Back Office OOP).
- One single PSC that allows administrations to publish information about their organisations and activities (e.g. structure, decision-making process and regulations) and to let know the users how they work and what they do with the data provided.

3. Key success factors

- A common centralised and standardised technical infrastructure used for the implementation of the online services and for the services offered in regard to data access to authentic sources, correction of data, reuse of data, monitoring of data access by public organisations, etc.
- Application of a common, unique, robust and secured eID authentication: fundamental rights of privacy, data protection and confidentiality are guaranteed; trust and confidence are improved.

4. More information

More information can be found at: https://joinup.ec.europa.eu/document/
oop-luxembourg, http://www.eu2015lu.eu/en/agenda/2015/12/01-02-conf-egovernment-ctie/presentations/day2/05 Gilles Feith.pptx

Luxembourg - ONCE ONLY Principle (OOP)

Top-level benchmark

User centricity, transparency, key enablers

Life event

Regular business operations, Moving, Owning and driving a car

1. Good practice description

In Luxembourg, the ONCE ONLY principle (OOP) is implemented⁴ in the eGovernment web portal www.Guichet.lu⁵, via services proposed by its transactional part My Guichet. lu⁶. The portal comprises information on nearly all the administrative procedures (structured by themes and life events). Luxembourg has efficiently implemented the OOP by making it a component of the Guichet.lu One Stop Shop. The number of administrative procedures offered for citizens and companies and relevant interactive online procedures accessible via the MyGuichet.lu platform have grown exponentially during the last years. MyGuichet.lu allows users to carry out administrative procedures online in a safe and secure manner by using a strong authentication and signature mechanism, i.e. an eID product (national ID card, smartcard, signing stick, token.) using a LuxTrust⁷ certificate or any other eIDAS compliant certificate (as of end of September 2018). The user can complete the procedures online, sign it electronically, attach any necessary supporting documents, and submit it to the administrative department.

2. Benefits

- Considerable efficiency gains for citizens, businesses and public sector organizations.
- Increased re-use of personal data thanks to the implementation of a central technical architecture.
- Improved transparency: possibility to verify the status of procedures, verify consultation of personal data, and consult and amend own data.
- Improved security by implementing fully encrypted communication channels and strong authentication mechanisms, compliant with the highest security standards.
- Fundamental rights of privacy, data protection and confidentiality are guaranteed.
- Improved data quality and an increase in the public's trust in authentic sources and the accountability of the government.

3. Key success factors

- Existence of an appropriate semantic and technical architecture.
- Existence of a legal basis.
- Personal data has to be reused by public administrations.
- Application of EU and MS E-government digital policies and strategies.
- Availability of financial capacities and an interoperability framework; relying on legal electronic identification authentication and trust services.

4. More information

More information can be found at: https://joinup.ec.europa.eu/document/oop-luxembourg, http://www.eu2015lu.eu/en/agenda/2015/12/01-02-conf-egovernment-ctie/index.html, https://ec.europa.eu/growth/content/performance-points-single-contact-%E2%80%93-

Luxembourg – eIDAS

Top-level benchmark

User centricity, Citizen & Business Cross Border Mobility, key enablers

Life event

Regular business operations, Owning and driving a car

1. Good practice description

CTIE's project "CI.SIE" has implemented the eIDAS interoperability framework of electronic identification schemes as required by the Commission Implementing Regulation (EU) 2015/1501. Project "CISIE" will directly enable access to more than 200 public e-services (MyGuichet, eCDF, national business register) with foreign EU eIDs. Going beyond the legal requirements of the eIDAS regulation, the project aims to solve the so-called eIDAS "waiting room problem". Furthermore, "CI.SIE" leverages the interoperability framework to enable creation and management of digital identities in Luxembourg's national register of natural persons. This is the first and only initiative of its kind in European Member States. To achieve both goals, project "CI.SIE" has obtained a grant from the CEF Telecom 2017 program.

To complement the setup of the interoperability infrastructure, Luxembourg has prenotified the national eID card (fourth Member State to do so), so that it can be peer-reviewed by all other Member States and finally notified. The notification process is ongoing (20.09.2018) and the Luxembourg Government public services will be accessible for all notified eIDs (only DE & IT for the moment) for the fixed deadline of 29.09.2018. After peer-review, the national eID card has been acknowledged at the highest level of assurance in eIDAS. To foster innovation and the growth of public and private e-services, the Council of Government of Luxembourg has decided to open access for the national eIDAS interoperability framework, free to all national private actors. To our knowledge, this is the first and only initiative of its kind in Member States.

2. Benefits

- Enabling Luxembourgish citizens and companies to access online public services in other Member States, in particular with the national eID card.
- Allow Luxembourg online public services to be accessible through foreign electronic authentication means (Login with other notified eIDs).
- People, businesses and public administrations will be able to carry out convenient, secure and legally valid electronic transactions across borders.
- Leveraging the interoperability framework to enable creation and management of digital identities in Luxembourg's national register of natural persons.

3. Key success factors

■ The existence of a single common eID (LuxTrust) for all administrative online services and of a single common infrastructure used for identification of the authenticated.

4. More information

More information can be found at: http://www.eu2015lu.eu/en/agenda/2015/12/01-02-conf-egovernment-ctie/index.html, www.eidas.lu (coming soon), https://ec.europa.eu/cefdigital/wiki/pages/viewpage.action?pageId=65972753

Malta - Business Start-Up

Top-level benchmark

User Centricity

Life event

Regular business operations

1. Good practice description

The Business Start-Up initiative directed by Business First Ltd is an online service whereby citizens have the facility to submit an application for the start-up of a sole proprietor or company. Applications can also be submitted through Tax Practitioners on behalf of citizens.

The objective of this initiative is to combine the various processes for the start-up of a business into one single platform where an application moves across the different Local Authorities/Agencies for vetting and approval without requiring the physical presence of the applicant. The entire process is managed through a workflow mechanism whereby citizens and Local Authorities/Agencies are notified about the status of the application and action(s) needed. The platform also incorporates a reporting tool for statistical and management purposes.

2. Benefits

- Citizens are not required to visit different Local Authorities/Agencies and fill-in multiple forms, hence expediting the start-up of a business activity process and providing a more efficient service.
- Combines different business processes under one platform, amalgamating all information needed by the various Local Authorities/Agencies into one single submission.
- Ability to use the services of Tax Practitioners, for the submission of applications on behalf of citizens.
- Real-time notification to Local Authorities/Agencies informing about the registration of a new business.
- Citizens receives the necessary confirmation and may start operating as a business entity.

3. Key success factors

- Streamlining the different information requested by the various Local Authorities/Agencies into one single submission, including changes to business processes as applicable.
- Mutual agreement by the various Local Authorities/Agencies to allow business start-up application through one single point of entry.
- Co-operation from Tax Practitioners, to make use of this eService on behalf of citizens
- Instant confirmations by the Government Entities.

4. More information

More information can be found at: https://businessfirst.com.mt/en/Pages/default.aspx.

Malta – Mobile Government strategy 2017-2018

Top-level benchmark

User centricity

Life event

Moving, Owning and driving a car, Starting a small claims procedure and Regular business operations

1. Good practice description

Malta has introduced the Mobile Government strategy 2017-2018, aiming to empower citizens by making public services available on mobile devices. This will allow secure 24x7 interactions with the government. mServices will be introduced, providing more flexible and personalised services to citizens when and where needed. Since mServices will be fast and convenient an increase in the use electronic public services is expected. Furthermore, the increased in convenience and speed with which services can be obtained will lead to greater client satisfaction and a better availability of public sector information.

2. Benefits

- Faster and more convenient access to government services.
- Increase in quality, efficiency and transparency of public services.
- Reduced Public Administration operational costs.
- Higher uptake of electronic services.

3. Key success factors

- Increase take up through promotional campaigns.
- Improved mServices quality using focus groups and training to various public administration officers.
- Business Process Reengineering and Standard Operating Procedures to guarantee efficiency in the design of mServices as well as ensure that all necessary support mechanisms and procedures are in place once the online service is implemented.
- The adoption of a standard, holistic approach towards design to provide a seamless user experience across all Government mServices.

4. More information

More information can be found at: https://mita.gov.mt/mobilegov

Malta - National Small Claims Procedure

Top-level benchmark

User centricity

Life event

Regular business operations

1. Good practice description

The Courts electronic services provide a comprehensive set of tools to allow injured parties to seek remedy through digital means for monetary claims that do not exceed €5,000. These tools provide a digital view to the workings of the Judicial process to citizens (as litigants) throughout the case lifecycle and up to the digital Judgement. Citizens (and businesses) can: Electronically file a claim using dynamic eForms, Electronically reply to a small claim made against them and even file a counter claim if desired, and Electronically file an appeal (through an authorised legal professional) against the decision taken by the Small Claims Tribunal in accordance with the National Small Claims Tribunal Act Ch 380(8). The site also allows litigants to register for digital Notifications. Litigants can follow their case progress with sitting details and case minutes being published on the publicly available Justice portal or alternatively Litigants can view case progress by logging into the eCourts system and viewing their case cabinet which will provide them information on notification of case acts, sittings, case minutes, representative lawyers, witness transcripts and case file documents, which include the Judgement.

2. Benefits

- It is easier for citizens to file claims, there is no need to recourse to a legal professional therefore empowering the citizen.
- Citizens have digital access to their electronic case file, therefore allowing them to have better visibility and insight to the proceedings.
- Having better visibility, citizens are now in the 'driving seat' and they can drive their cause forward.
- Facilitates and expedites the Small Claims Procedure as information is digitally available
- Citizens are sent reminders of their Court appointments through voluntary electronic subscription in the eCourts portal and this provides an easy way to register for notifications for Small Claims Courts sittings.
- Citizens receive notifications of any deferred case in a timely manner.

3. Key success factors

- The digital notifications service improves the attendance rates and therefore indirectly hastens the case proceedings.
- The Citizen services increase the transparency of the process and allows them to positively influence the disposition time of the case.
- Disposition time for small claims cases has been reduced to around 8 months.

4. More information

More information can be found at: https://www.gov.mt/en/Life%20Events/SmallClaims/Pages/Small-Claims.aspx, https://eCourts.gov.mt, http://justiceservices.gov.mt/courtservices/CivilCases/default.aspx.

Netherlands - Cybersecurity tool

Top-level benchmark

User centricity, Transparency, Cross-border mobility, Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

Both governments and civilians can become the victim of cybercrime, resulting in serious damage and high costs. Modern internet standards have proven to be an effective, low costs and easy solution to prevent cybercrime. Examples of modern internet standards are protected internet connections, domain name protection and prevention of phishing. The Dutch government contributed to a private-public partnership which developed an internet tool (internet.nl) that allows the user to test for modern internet standards. In this way organizations and individuals can discover and fix the weaknesses of their website, email and internet connection.

2. Benefits

- Prevention of cybercrime
- Easy to use online tool
- Higher cybersecurity of email, website and internet

3. Key success factors

- Open access tool
- Easy to use
- Clear test results

4. More information

More information can be found at: www.internet.nl

Poland - BIZNES.GOV.PL

Top-level benchmark

Cross-border mobility

Life event

Regular business operations

1. Good practice description

Biznes.gov.pl is a portal website dedicated to people planning and conducting economic activities. The aim of the portal is to support entrepreneurs successfully setting up and running their businesses. It eases and serves both national and non-national companies.

2. Benefits

- An essential Point of Single Contact for businesses with almost 1100 service descriptions, 170 guides and 300 online services (partially for non-national businesses).
- Online support in both Polish and English, including a Help Center with a live virtual consultant and various contact channels.

3. Key success factors

- Strong focus on users, with for instance trainings modules for entrepreneurs.
- Part of the EUGO network and funded by various programmes, such as 'Digital Poland' from the European Union Funds scheme.

4. More information

More information can be found at: https://www.biznes.gov.pl/pl/firma or English http://www.businessinpoland.gov.pl/

Poland – Electronic Land and Mortgage Register

Top-level benchmark

User Centricity

Life event

Moving

1. Good practice description

Electronic Land and Mortgage Register allows users to:

- browse the contents of land and mortgage registers,
- submit an application for a copy, extract or certificate of closing the land and mortgage register.
- check whether copies, extracts and certificates of closing the book, obtained electronically, are valid and true.

Having the number of the land and mortgage register of a given real estate it is possible to browse information on specific real estate free of charge.

2. Benefits

- Better protection of real estate transactions
- Simplification of administrative process

3. Key success factors

■ E-signature is not required to browse the contents of land and mortgage registers

4. More information

More information can be found at: https://obywatel.gov.pl/nieruchomosci-i-srodowisko/elektroniczne-ksiegi-wieczyste

Portugal - Mobile Digital Signature

Top-level benchmark

Cross-border mobility, Key enablers

Life event

Moving, Owning and driving a car, Starting a small claims procedure and Regular business operations

1. Good practice description

The Digital Mobile Key (DMK) is the National eID mobile solution that allows citizens to electronically authenticate themselves and perform all sorts of digital services, by simply using an OTP sent to the citizens Smartphone, tablet or laptop.

Besides authentication, citizens can also digitally sign with the DMK, both as a citizen and in a professional capacity – this last one an innovative feature that, through the Portuguese Professional Attributes Certification System (SCAP) allows, e.g. public officials, lawyers, engineers, doctors to sign as such. Furthermore, DMK is available to foreign citizens, by association with one's passport attributes, hence promoting cross-border mobility.

2. Benefits

- Personal & professional eSignatures at a click
- Free of charge
- Secure, fast and handy

3. Key success factors

- Easiness of use
- Mobility
- All-in-one product

4. More information

More information can be found at: autenticacao.gov

Portugal - New Data Portal

Top-level benchmark

Transparency

Life event

Moving, Owning and driving a car, Starting a small claims procedure and Regular business operations

1. Good practice description

Because open government data can be a remarkable resource to several stakeholders, including the government itself, AMA recently launched a new version of the national government open data portal: dados.gov.pt.

Under the national co-creation program for a simple and modern Public Administration, the SIMPLEX +, this new version of the Portal was designed to conform to the best international practices, and incorporate innovative solutions in terms of user experience, content structure, data integration and user licenses.

And since data reuse is one of the portal primary goals, the possibility of cross-checking and regrouping data, by using accessible formats and gathering information from different places, is one of dados.gov strongest perks.

2. Benefits

- Fosters transparency, public scrutiny and a data evidence process in the policy making cycle
- Amplifies the potential for more efficient public services
- Improves data consistency

3. Key success factors

- User-friendly and intuitive Portal, with a clean layout and simple language
- Several channels for interaction
- Possibility of indexing the datasets, besides/instead of uploading them

4. More information

More information can be found at: dados.gov.pt.

Portugal – Social Energy Fare

Top-level benchmark

User centricity, Key enablers

Life event

Moving

1. Good practice description

The Social Energy Fare (SEF) was first designed in 2010 for electricity, aiming to offer affordable energy services to the lowest-income households in Portugal. But the process was bureaucratic, and citizens were ill informed about their rights, hence not taking full advantage of these rights.

With this in mind, the Portuguese government revised the process and ensured social fares were automatically attributed to any household that fit the criteria, without any intervention from citizens.

In order to treat around four million records, an information system was developed to exchange data between energy suppliers, the Tax system and the Social Security system, using the Integration Platform developed by AMA (Administrative Modernization Agency), which assures interoperability in the Portuguese public administration.

2. Benefits

- After implementation, the number of households benefitting from the Social Energy Fare rose 370%, ensuring all low-income households in Portugal now have access to reduce prices of energy supply, in a seamless way
- Replicable in other areas
- Seamless government

3. Key success factors

- Interoperability
- Consistent & digitalized base registries and other databases

Romania - State of Play

Top-level benchmark

User centricity, Transparency, Cross-border mobility, Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

There are different projects implemented at national level in order to allow a number of 36 Life Events to act as key facilitators for particular eServices. All of them are designated to support both the Romanian public administration and, also, the business environment. They are implemented by different Romanian public entities (i.e. Ministry of Labor and Social Justice; National Trade Register Office; Ministry of Foreign Affairs; Ministry of Internal Affairs; Ministry of Public Finance and Ministry of National Education), and supported via European structural funds. Similar, the Ministry of Communications and Information Society is leading two major projects - eGOV and eCOM – which are supposed to map the legal, procedural and operational frameworks in running future online services - and, both of them will include some components, as referred into the above suggested Life Events (Regular business operations, Moving, Owning and driving a car, Starting a small claim procedure).

The estimated results of these initiatives will be promoted on institutional web sites and their online visibility will potentially allow future benchmark prospects from European Commission.

2. Benefits

• Contribute to the Digital Single Market, according with its general benefits, as estimated for all Europeans.

3. Key success factors

■ Support the digital transformation in different fields of interest.

4. More information

More information can be found at: www.comunicatii.gov.ro

Romania – Personal Data Services and Paying Taxes www.anaf.ro

Top-level benchmark

Transparency, Key Enablers

Life event

Regular Business Operations

1. Good practice description

Romanian citizens and companies can check online who has used their personal data, why and when, straight from the National Agency for Fiscal Administration portal via the electronic public services called Virtual Private Space (VPS). Queries for fiscal certificates and other information from the Fiscal Register and personal data timely provided by NAFA to other public institutions (like information about taxes and contributions paid to social security and health funds, etc.) are provided together with the name of the institution / business who asked for, the legitimate reasons to check data, date and time of the query. The list of queries is provided in real time as a report in the Virtual Private Space (VPS), using an e-mail like function.

2. Benefits

- Single Window system for fiscal information where citizens can fill tax returns, view their own information, get and send documents to the fiscal authority
- Overview of the personal data supplied by the National Agency for Fiscal Administration to or accessed by public institutions (like National Health Insurance House, National Social Pensions House, National Agency for Employment, other) and business operators (like banks)
- The electronic public services to fill the tax returns and to do electronic payments for taxes and contributions are used by more than 90% of the economic operators, and an increasing number of individuals. From a total of around 22 million tax returns processed each year, about 60% are filled in electronic format in Romania.
- To increase effectiveness and efficiency in collection of taxes and social contributions (an improvement of collection by 1.4% of the total fiscal revenues in 2017 compared to 2016)
- To increase tax filling compliance (by 0.4% in 2017 compared to 2016)
- To reduce the burden on taxpayers to comply

3. Key success factors

- Fully electronic, centralized databases with fiscal information accessible to institutions, economic operators and citizens
- Enforcement of the General Data Protection Regulation (GDPR)
- Support the digital transformation in different fields of interest.

4. More information

More information can be found at: www.anaf.ro, www.mfinante.ro

Romania – Personal Data Services www.depabd.ro

Top-level benchmark

Transparency, Key Enablers

Life event

Moving

1. Good practice description

Authorities and public administration in Romania can check the identity of the users of the public services (both for traditional and electronic delivered public services) online, simplifying the administrative tasks by millions of identity checks and copies of the ID documents. The online check is directly at the Directorate for Databases Administration and Population Registration (DEPABD) portal via the dedicated electronic public service. At this portal the Romanian citizens can check who used their personal data, why and when. The Directorate also supplies civil status information – like personal data about the requestor and its parents, ID documents, present and past addresses and residences, about the Personal ID number, etc. The information is timely provided as a free public service. The Directorate steadily supplies information to the Romanian fiscal and financial authorities and to the social services to effectively simply the administration of the social pensions, health insurance and social benefits for more than 19 million individuals. The access to the electronic public services increased over the past year (2017) as the large infrastructure for Internet has been deployed in Romania as part of the RONET project coordinated by the Ministry of Communications and Information Society.

2. Benefits

- Overview of the personal data supplied by the Directorate for Databases
 Administration and Population Registration
- Contributes to the simplification of the administrative tasks of the National Agency for Fiscal Administration, National Health Insurance House, National Social Pensions House, National Agency for Employment, Central Electoral Authority other and business operators (like banks, notaries, bailiffs)
- The electronic public services are queried from more than 4,000 offices of the different public authorities and institutions all over Romania, to support the delivery of the public services in close proximity to the citizens
- Provide core support for the digitalization of the civil status documents from the historical archives

3. Key success factors

- Fully electronic, centralized databases with persons and civil status information accessible to institutions, economic operators and citizens
- Enforcement of the General Data Protection Regulation (GDPR)
- Support the digital transformation in different fields of interest.

4. More information

More information can be found at: www.mai.gov.ro, depadb.mai.gov.ro

Romania – Owning and Driving a Car

Top-level benchmark

Key Enablers

Life event

Owning and driving a car

1. Good practice description

The two institutions involved in the life event "Owning and Driving a Car" provide online 34 public services, from electronic public services which provide free information (about cars, drivers licenses, license plates, third party liability insurance, scheduling for technical inspection of the vehicles, etc.) to electronic public services to pay taxes and tolls, other fee-based services. Romanian citizens can use online scheduling before visiting the Community Public Service for Driver's Licenses and Vehicle Registrations, as a feature available on the online platform of the institution. This service, alongside others, reduces the citizen's waiting time and optimizes the institution's efficiency. The possibility to receive the driver's license or the vehicle registration permit by postal service also eliminates the necessity of a second visit to the public institution. A driver's license is issued in approximately 2 hours. When completing the service request submission for a driver's license, the citizen will receive a document granting him the same rights as the driver's license with a limited validity (up to 14 days), so that there is no interruption in the citizen's right to drive vehicles. The IT systems of the Community Public Service for Driver's Licenses and Vehicle Registrations and the Romanian Auto Register are interconnected and interoperable. In 2017 – around 3.5 million request have been processed via the electronic public services, resulting in more than 3.8 million plates and documents and more 1.1 million driver's licenses being released.

2. Benefits

- Reduces citizen's waiting time and the number of required visits to the institution offering the public service (over 90% of issued documents are sent by postal service)
- Increases institution efficiency, accounting for a 42.47% increase in volume of issued driver's licenses as compared to previous year and an 108% increase as compared to 2015
- Provides visibility of document issuing status
- Ensures there is no interruption in the citizen's right to drive vehicles.

3. Key success factors

- Fully electronic, centralized databases containing vehicle and driver information, interlinked with the European car and driving license information system (EUCARIS)
- Facilitating all activities included in the public service to take place at the same desk inside the institution, including the payment for the public service (which is directed to the State Treasury)

4. More information

More information can be found at: https://www.drpciv.ro/, http://www.rarom.ro/

Romania – Starting a Small Claims Procedure

Top-level benchmark

User Centricity, Transparency, Key Enablers

Life event

Starting a small claims procedure

1. Good practice description

The Small Claims Procedure is administered in Romania by the Ministry of Justice and the Courts of Law in Romania, which provide simple electronic public services to download the forms and to track the status of the action in court via the justice portal (http://portal.just.ro) and the site of the Ministry of Justice (www.just.ro). The electronic public service for small claims procedure was used locally in 2016 and 2017 in around 2.5% of the civil cases (around 37 thousand cases per annum). There are no known cases to use the European Small Claims Procedure in Romania.

2. Benefits

- Improves citizen's access to Justice
- Reduces citizen's waiting time for the Court decision

3. Key success factors

■ Fully electronic, centralized databases containing the information of the Courts in Romania (justice portal www.just.ro)

4. More information

More information can be found at: http://portal.just.ro, www.just.ro

Serbia – Application for Enrollment to Kindergarten

Top-level benchmark

User centricity

Life event

Regular business operations

1. Good practice description

The service was implemented on Central eGovernment Portal www.euprava.gov.rs inside the Life Situation Family and Life Event Children. It was initiated with a huge number of applications for enrolment into the Kindergartens, especially in big cities, with insufficient number of places in public kindergartens. The service was launched three years ago in Belgrade; now it runs in four cities. The Portal has incorporated service bus (GSB); this service uses it. The Application for Enrolment service is completely online and implies the choice of the particular kindergarten from the list and fulfilling a simple online form. The service collects via GSB relevant data from three institutions automatically, completes the electronic form, and send it to the chosen kindergarten, via Portal back office. Parents whose child did not get a place in a public kindergarten can request online for proof of rejection and use it for subvention of the private kindergarten fee. The service is, also, applicable for parents, foreigners who live in Serbia, with no national personal identification number. The service for single parents is under construction.

2. Benefits

- Parents can use it completely online, without visiting the kindergarten; in Belgrade, online application was over 50% of all applications, in Novi Sad it was over 40%.
 A number of applications in 2018 in four cities (Belgrade 9249, Novi Sad 1544, Sremska Mitrovica 37, Sabac 202).
- It hits target group with high digital literacy, spends time escaping a personal visit to the kindergarten, and collecting additional documents; for the average family with two children it is about 20 euros and 2-3 hours
- Kindergartens use the service for free as a web application and training of the staff
 has been provided for free; the spreading of the service to the new places is very
 simple

3. Key success factors

- Portal has a tool, service generator, providing possibility to implement fully online services with no additional software development; Portal provides two levels of the electronic identity management for civil servants with qualified certificates, for citizen username and password
- Local governments supported the usage of the service with providing qualified certificates for kindergarten employees, as well as changing the procedures of enrolment
- Parents with children aged for kindergarten are, mostly digitally literate and motivated to spend time and money

4. More information

More information can be found at http://www.euprava.gov.rs/eusluge?service=servicesForTemplate&serviceTemplateId=3042

Slovak republic – Procedure car registration

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Owning and driving a car

1. Good practice description

The following events are handled within the vehicle registration information system. Thereby providing a verification of the vehicle via an electronic vehicle registration certificate: Changing the registration plates of the vehicle, Reporting of lost and stolen electronic vehicle registration certificate, Replacing the vehicle registration certificate, Providing information on the vehicle, Make changes in vehicle registration, Agree the terms for the traffic inspectorate, Empowerments for evidence acts. These services are designed in accordance with the Act no. 8/2009 Coll. on Road traffic, which allows you to perform electronic filing and registration of vehicles to the public.

Electronic services includes for example: information on liability insurance, information on technical and emission inspection, history of the vehicle, technical specifications of the vehicle, provision of data from the electronic registration certificate, report the loss or theft of the vehicle registration certificate, verification of lost and stolen vehicle registration certificate, application for the vehicle registration plate duplicate (due to its loss, theft or damage), application for the registration plate replacement (for a standard, customized or plastic one), application for the renewal of the vehicle registration certificate after its loss or theft, report the found vehicle registration certificate, submission of the confirmation about a value added tax payment in the country, during the vehicle import and making an appointment at the Department of transport on selected date.

2. Benefits

- Fast service for citizens, and services are available outside office hours
- Less personnel costs
- Higher efficiency gains

3. Key success factors

Creating a program with clear goals and requirements

4. More information

More information can be found at: https://portal.minv.sk/wps/wcm/connect/en/site/main/Individuals+-life-situations/vehicles/

Slovak republic –Register new address

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Moving

1. Good practice description

User portal for the central registration office handling following life events:

- Permanent residence
- Temporary residence
- Authorization to reporting residence
- Confirmations

These services are designed in accordance with the Act no. 253/1998 Coll. reporting the residence of Slovak citizens and the Register of citizens of SR.

List of electronic services of the information system: Applying for permanent residence, Reporting permanent residence of another person, Renouncing permanent residence due to moving abroad, Initiating cancellation of permanent residence, Reporting temporary residence, Reporting temporary residence of another person, Report renouncing from temporary residence, Report renouncing from temporary residence for another person, Initiating temporary residence cancellation, Renouncing temporary residence abroad, Report renouncing from temporary residence abroad, Getting confirmation of permanent residence, Getting confirmation of reporting temporary residence abroad, Issuing confirmation of permanent residence cancellation, Requesting for new empowerment, Listing and revoking of existing empowerments.

2. Benefits

- Step towards creating a one-stop-shop for government services.
- Information will travel inside government, not citizens.
- Improves service quality.

3. Key success factors

- Learning from pilot projects.
- Stakeholder involvement.

4. More information

More information can be found at: https://portal.minv.sk/wps/wcm/connect/en/site/main/Individuals+-life-situations/residence/

Slovakia – Providing information on the technical and emission control of the vehicle

Top-level benchmark

User centricity, Transparency

Life event

Owning and driving a car

1. Good practice description

The service allows you to obtain information on the technical and emission control of the vehicle you are the owner or holder of, or you are authorized to act on, and at the same time you can request an electronically signed official document.

Citizens of the Slovak Republic have no obligation to report regular technical and emission control. These can only be checked in certain cases, such as on-site inspections, new vehicle registration, and the like. Whether the car has gone through the necessary checks can also be detected using the electronic service (https://portal.minv.sk/wps/wcm/connect/sk/site/main/zivotne-situacie/tpreukazymenu/sluzba-informacia-kontrola/).

On the webpage of Complex Road Transport Information System (JISCD) https://www.jiscd.sk/moja-zona/elektronicka-servisna-kniha-vozidla/prehlad-vozidiel/?tx_esdekv_esdekv%5Baction%5D=login&tx_esdekv_esdekv%5Bcontrolle r%5D=Ekv&cHash=ec6208be3597d1ef4505633815a03349 , you can also set up notifications in the personal zone for the expiry of the technical and emission control deadlines.

2. Benefits

- Service eligible for more than 2 500 000 official submissions per year.
- Saving more than 1 000 000 hours of citizens time spending on solving this agenda standardly via Municipality Office per year.

3. Key success factors

- Service greatly helping citizens to save resources (mainly time) solving office agenda.
- Improving transparency of technical and emission control agenda.

4. More information

More information can be found at: https://www.slovensko.sk/sk/zivotne-situacie/zivotna-situacia/_emisna-a-technicka-kontrola/, https://www.jiscd.sk/moja-zona/elektronicka-servisna-kniha-vozidla/prehlad-vozidiel/?tx_esdekv_esdekv%5Baction%5D=login&tx_esdekv_esdekv%5Bcontroller%5D=Ekv&cHash=ec6208be3597d1ef4505633815a03349

Slovakia - Help on Motorway

Top-level benchmark

User centricity, Cross-border mobility, Key enablers

Life event

Owning and driving a car

1. Good practice description

The "Pomoc na dial'nici" (help on motorway) application is used to call the highway patrol either by calling it or by sending a text message containing the driver's location. It records the up to date traffic limitations directly from the central operator center right after the event occurs. It also offers drivers the information regarding the rest areas where they can relax and use their services. On the top of that, it also includes the touristic attractions information all over Slovakia that can a driver visit during his trip. All the additional contacts, breaking news and information contribute the application for a safer motorway transport.

2. Benefits

- Ca. 25 000 number of users.
- Great customer rating (4,44 from 5).

3. Key success factors

- Cooperation with the traffic service.
- Rich and up to date content.
- Tourism support.

4. More information

More information can be found at: www. (https://www.ndsas.sk/en/i-love-motor-way/mobil-application)

Slovenia – Central platform for Authentication and e-Signature Service SI-PASS

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

Authentication and e-Signature Service SI-PASS (http://sicas.gov.si) - has been established based on the IT strategy of Slovenia which focuses on providing central solutions to enhance development of e-services provided by public administration and to support eIDAS implementation. SI-PASS is managed by the Ministry of Public Administration and covers several services. The user-authentication service represents a single point for identity validation of different entities. It connects their e-identities and attributes stored by various providers with e-services. It also integrates eIDAS node functionalities. The remote e-signature service allows e-signature, whereby it is created using a dedicated certificate and the corresponding private key. This key is stored securely in SI-PASS, so that only the certificate owner is entitled to access. No dedicated software is needed. SI-PASS allows users are also using only their mobile devices to authenticate and e-sign documents (smsPASS service).

2. Benefits

- Reduction of cost: From the service providers' point of view, the flexibility and ease of integration of the various e-identities into their systems, covering also eIDAS implementation and they no longer need to provide and maintain e-signature software for a wide range of platforms that users want to use. Already used by the main e-government portals: State e-government portal, One stop shop for companies, e-Public procurement etc. Already used more than 1.2 million times (since Nov.2015).
- From the users' point of view: Single user interface for accessing all e-government services, in the future also for e-banking services.
- Accessing and e-signing using mobile devices (no need for smart card readers).

3. Key success factors

- SI-PASS is available to all public administration; political support also to be used by the banking sector.
- Single user interface for accessing all e-government services, no need for any special software, working in different platforms. Users can authenticate and e-sign with mobile devices.
- Paying a lot of attention to user centricity (working mostly according to the service design thinking methods).

4. More information

http://nio.gov.si/nio/asset/centralni+avtentikacijski+sistem+sicas, http://nio.gov.si/nio/asset/centralni+sistem+za+streznisko+epodpisovanje+sices, https://www.facebook.com/Konferenca-Informatika-v-javni-upravi-2017-1920206234900373/?hc_ref=ARR2hfMPzQ7aKvakdkllKaaUoL_sDgXJLG7ZMwcF_yOSti_Garn1at8GNJXsFnh28s

SPAIN - CL@VE

Top-level benchmark

Key enablers

Life event

General

1. Good practice description

Cl@ve is a system aimed at unifying and simplifying electronic access by citizens to public services. Its main purpose is to allow citizens to identify themselves before the Administration by means of fixed keys (username and password), to avoid the need to remember different keys for different services. Cl@ve complements current access systems using electronic ID and digital certificate, offering at the same time the possibility to carry out cloud-based signature operations with personal certificates protected on remote servers.

2. Benefits

- Citizens using electronic administration services may then choose the identifier they wish to use among those available for the level of assurance required by the application.
- Cl@ve allows the electronic administration applications to set their quality assurance level of the authentication required, from the data they deal with and the security classification, following the recommendations of the National Security Framework (Royal Decree 3/2010, of 8 January, on the National Security Framework within the Electronic Government).
- Additionally, Cl@ve is ready to incorporate in the future identification mechanisms from other EU countries, as they integrate into the cross-border recognition system of electronic identities set forth in European legislation.

3. Key success factors

- The Cl@ve system was approved by Resolution adopted by the Council of Ministers, on the meeting held on 19 September 2014, and its terms and conditions of use are established by the Directorate for Information and Communication Technologies.
- Cl@ve includes the use of identification systems based on basic keys (username and password systems) as well as digital certificates (including electronic ID).

4. More information

More information can be found at: http://clave.gob.es/clave_Home/en/clave.html

SPAIN - Electronic ITV card

Top-level benchmark

User centricity

Life event

Owning and driving a car

1. Good practice description

The aim of the electronic ITV card project (eITV) is to establish a communication channel between the Manufacturers and Importers of Vehicles (FIR), with the Public Administrations involved in the processes of vehicle homologation and registration.

The previous process implied a high cost for the manufacturers at the time of requesting the authorization of the cards. The time wasted in manual processes was high and security was compromised, the physical card can be stolen in each movement and the authorities could not introduce any control mechanism to guarantee the data that appear on the cards. Manual authorization processes have been replaced by electronic processes as well as face-to-face DGT procedures to inform the technical data of a vehicle for its matriculation. The delivery of documents has been replaced by web services and the physical ITV card has become an XML.

2. Benefits

- The new system significantly shortens the storage times of a vehicle until its sale and registration, resulting in additional cost savings for the entire automotive sector.
- Increased security in the transmission of cards before registration. This point is very important since the subtraction of the same in this stage supposes the subtraction of the vehicle.
- For the citizen, it reduces the time of registration of a vehicle in a substantial way and facilitates the procedures for the settlement of taxes associated with the registration of a vehicle.

3. Key success factors

- The manufacturers can now consult, rectify or cancel electronically, the data provided. They will also know at all times the status of their applications in both the MINETUR and the DGT, as well as the cards sent.
- It incorporates a series of security measures, such as secure communication channels, use of the electronic signature and electronic records that guarantee the authenticity, integrity and confidentiality of the data provided.
- This service represents a significant productivity improvement in the processes of authorization and control of ITV cards for public administrations and increases the quality of the data available to the Administration and provides the competent authorities with better control and security mechanisms.

4. More information

More information can be found at: https://sede.dqt.qob.es/es/tarjeta-itv-electronica/

SPAIN – Smart parking en Villanueva de la Serena

Top-level benchmark

User centricity, Transparency, Cross-border mobility, Key enablers

Life event

Owning and driving a car

1. Good practice description

The project is a smart parking system. It allows the citizen to know the occupation of the public municipal parking and the total number of parking lots in real time. It also offers the option to consult the best available route of access to the parking from the citizen's location. The aim is to optimize the mobility in the city. Moreover, the system offers information about fares and parking lots for handicapped citizens. We have developed an APP for mobile devices, a Web application, as well as other tools. The project has been working since April 3rd, 2017. From the technological point of view, the solution is based on strategic localization of several magnetic sensors. These sensors send captured data through a gateway to an Information System located in the Town Hall.

Once the system collects the data, they are published altogether with the status of the parking lots in real time on the related applications (an APP for mobile devices, a Web application, the Open Source portal, and the Special Data Infrastructure (IDE) of the city). The project has been co-financed by the European Regional Development Fund FEDER.

2. Benefits

- It is an improvement to the management of mobility in Villanueva de la Serena.
- Citizens can make better decisions to park without going around unnecessarily.
- The environmental quality of the city is increased by reducing the levels of polluting emissions.

3. Key success factors

- Rational proposal for mobility management.
- Reduce vehicle consumption and polluting emissions.
- Reduce the stress levels of citizens in their displacements.

4. More information

More information can be found at: http://app.villanuevadelaserena.es/, http://visor.villanuevadelaserena.es/visorvva/index.html?typeMap=public&mapKey=mapa_smartparking_es&zoom=15

Switzerland - eMovingCH

Top-level benchmark

User centricity

Life event

Moving

1. Good practice description

The Confederation, cantons and communes have devised eMovingCH to enable the electronic reporting and processing of changes of address and moves to and away from a commune. It should be implemented throughout Switzerland by the end of 2019. With eMoving, inhabitants can simply send notification of their house moves electronically. In the meantime, all the communes in the Canton of Zurich are now using the online moving platform. In this way, over one million inhabitants in the canton of Zurich are able to benefit from this. In August 2016, the city of St Gallen became the first commune outside the canton of Zurich to join eMovingCH. Since August 2017, eMoving is also available in the cantons of Aargau, Zug and Uri. At least 10 other cantons are planning to introduce it in 2018.

2. Benefits

- Up to now, around 16,000 house moves were notified electronically.
- The service can be used from any location. It reduces administrative burden for citizens and authorities and is time- and cost-efficient.

3. Key success factors

- The solution that is being applied in the canton of Zurich is also available to other cantons as a "combined solution". It is to be operated in the future by the organisation eOperations Switzerland, which will be set up in the context of a strategic eGovernment Switzerland project. As a standard, the eMoving portal takes account of a reference model and is implemented with the residents register solutions used by the municipalities.
- Full electronic processing of the moving process is still not possible today for the general public. More action is needed for expanding eMoving throughout Switzerland, in particular in the following areas: support for the implementation of eMoving in cantons and communes within the scope of cantonal projects, setting up and assurance of the operation of the eMovingCH solution, and elimination of various legal obstacles.

4. More information

More information can be found at: https://www.egovernment.ch/en/umsetzung/schwerpunktplan/e-umzug-schweiz/

Switzerland – EasyGov

Top-level benchmark

User centricity, Transparency, Cross-border mobility, Key enablers

Life event

Regular business operations

1. Good practice description

The portal EasyGov is the online desk for companies. It makes the necessary administrative tasks simple, fast and efficient. This secure and reliable platform allows companies to electronically process authorization, application and reporting procedures in a single location. It currently offers mainly services from the federal level and will integrate more services from cantons and communes in the future.

2. Benefits

- EasyGov relieves burdens and saves costs for both companies and the authorities.
- Trustworthy
- Saves time in the companies' administration, time they can use productively for their business.
- Number of user accounts: Total 6700
- Number of registered companies: Total 6562 (go-live in November 2017)

3. Key success factors

 EasyGov will continue to expand its online desk to encourage more small and medium sized enterprise (SME) businesses in Switzerland to adopt the digital path.

4. More information

Version 1.0 of the platform EasyGov.swiss was launched 6th of November 2017. The number of services provided will be extended in the coming years, so that the most sought-after authority services will have been made available by the end of 2019.

More information can be found at: https://www.easygov.swiss/easygov/#/en/general-information/about/register-user

TURKEY - National Judiciary Informatics System (UYAP)

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Starting a small claims procedure

1. Good practice description

The Ministry of Justice has prepared a "National Judiciary Informatics System (UYAP)", which is to implement a very ambitious information system between the Courts and all other institutions of the Ministry, including prisons.

Citizens can log in the UYAP portal by SSO which is provided by www.turkiye.gov.tr. With UYAP, citizens or lawyers are able to get information or make transactions for claims on a small amounts (e.g. obtain information about procedure, start a small claim procedure, share evidence / supporting documents by citizen, obtain information on case handling, appeal against court decision). On the other hand, The Ministry of Trades' Consumer Information System can be used for small claims procedure (tuketicisikayetikayet.gtb.gov.tr). Arbitration Committees for Consumer Problems makes a decision and that can be continued through UYAP if required.

2. Benefits

- Smart claims procedure can be started without the need for a lawyer.
- 7/24 online support is provided to citizens.
- From the beginning to the end of the process, all information is given about the process and situation.
- The website is mobile friendly and also has Android and iOS apps.

3. Key success factors

■ Dissemination of e-Signature or mobile signature usage among citizens is very important and key success factor.

4. More information

More information can be found at: vatandas.uyap.gov.tr, www.e-justice.gov.tr

TURKEY - www.türkiye.gov.tr

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations

1. Good practice description

This life event consists of several public agencies e-service steps. The e-services are provided by The Ministry of Treasury and Finance, The Ministry of Family, Labour and Social Services, The Ministry of Justice and The Central Bank of the Republic of Turkey.

The e-service steps of the life event such as "corporate tax, VAT declaration, social contributions, submit financial reports with business registration office, submitting of company data to statistical offices employee contractual agreements/ regulation, required working conditions for employees, report illness of employee, requesting a refund of VAT, appeal against a claiming refund of VAT decision" are served on www.türkiye.gov.tr or portal of the public agencies. Employers or employees are able to access those services from either eGovernment portal or below addresses.

- intvrg.gib.gov.tr
- uyg.sgk.gov.tr/BirinciBasamak
- tcmb.gov.tr/wps/wcm/connect/EN/TCMB+EN/Main+Menu/Statistics
- · uyap.gov.tr
- isgum.gov.tr

2. Benefits

- Cost and time savings.
- Less damage to nature/less paper waste.
- Reducing bureaucratic processes.
- Improvement in service quality and productivity.
- The government offers a more efficient service.
- Saves time for both government and citizens.

3. Key success factors

- Technical capacity in public agencies.
- Publicizing the benefits/ROI of the projects.

4. More information

More information can be found at: www.aile.gov.tr, e.sgk.gov.tr, www.tcmb.gov.tr, gib.gov.tr/en

United Kingdom – GOV.UK Verify

Top-level benchmark

Key enablers

Life event

Regular business operations, Moving, Owning and driving a car, Starting a small claims procedure

1. Good practice description

GOV.UK Verify is a secure way to prove who you are online. GOV.UK Verify gives access to 16 government services, with more in the process of connecting.

2. Benefits

- When you use GOV.UK Verify, you don't need to prove your identity in person or wait for something to arrive in the post. It makes it quick and easy to access government services.
- It is safe, as information is not stored in one place and all the certified companies have to meet government and international standards for security and data protection.
- Over 2.8 million people have created a GOV.UK Verify account to perform over 7.5 million secure transactions with government.

3. Key success factors

■ Public-private collaboration: when you use GOV.UK Verify to access a government service, you choose from a list of companies that the government has approved to verify your identity.

4. More information

More information can be found at: https://www.gov.uk/performance/govuk-verify

¹ In the context of the "Digital Luxembourg" initiative (https://digital-luxembourg.public.lu) the Government Council approved on July 24, 2015 the 'Transparency principle' for the implementation of an efficient digital administration. https://gouvernement.lu/en/actualites/toutes_actualites.gouvernement%2Bfr%2Bactualites%2Btoutes_actualites%2Bco mmuniques%2B2015%2B07-juillet%2B24-conseil-gouvernement.html

² https://guichet.public.lu/en.html

³ https://guichet.public.lu/en/myguichet.html

⁴ https://joinup.ec.europa.eu/document/oop-luxembourg

⁵ https://guichet.public.lu/en.html

⁶ https://guichet.public.lu/en/myguichet.html

⁷ LuxTrust is a Luxemburgish authentication and eSignature service provider, recognised as a trust service provider (TSP) by ILNAS (the Luxembourg public standards service). This attests LuxTrust's expertise and strict compliance with the most stringent European security norms and standards. Cf. lustrust.lu



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Background report

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