

eGovernment Benchmark 2016

A turning point for eGovernment development in Europe?

FINAL BACKGROUND REPORT – VOLUME 2 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









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Executive Summary

This edition of the eGovernment Benchmark shows the state-of-play of digital public services in Europe as of 2015. eGovernment services were assessed in 34 participating countries, including all of the EU28. The benchmark makes use of Mystery Shopping, where the quality and quantity of online public services is measured by assessors acting as a user.

The subject of the benchmark is a set of seven life events. Together, these life events represent virtually all domains of government. Each life event is reviewed once every two years. In 2015, four life events were assessed: Regular business operations, Moving, Owning and driving a car and Starting a small claims procedure. This has completed the second cycle of measurements. As all life events have now been assessed twice, a full analysis of European progress over time is now possible.

This report presents the basic analysis of the study and a detailed overview of the measurement and this year's life events. It is accompanied by an Insight Report, which reports on the main insights stemming from the facts.

The study consists of four top-level benchmarks, covering important EU policy priorities:

- User Centricity indicates to what extent (information about) a service is provided online;
- Transparency indicates to what extent governments are transparent as regards

 a) their own responsibilities and performance, b) the process of service delivery and
 c) personal data involved;
- Cross Border Mobility indicates to what extent European users can use online services in another country;
- Key enablers indicates the extent to which five technical pre-conditions for eGovernment are used.

Viewing eGovernment at a generic level (across life events), the 2015 measurement shows:

- Many more services available: European eGovernment has seen a marked increase in the availability of services over the last two year. Of all services or information, 77% is now available via the online channels.
- Quality improving slowly: While there is some progress in the experience of users, government does not seem to view user experience as a priority. The gap in scores between quality and quantity has grown.
- Room for improving transparency: Although transparency on personal data and delivery timelines has improved a little, more is needed to ensure Europeans know what to expect from their government.
- Better cross border mobility for businesses: the user friendliness for foreign businesses has seen a great leap. More can be done, but for the moment, cross border business will find themselves supported.
- One more leap needed for cross border citizens: Just as for businesses, the cross border friendliness for citizens has improved markedly. But this leap was long overdue. The current situation is still not satisfactory.
- Little progress in the uptake of Key Enablers: European governments use Key Enablers such as eID, or Single Sign On somewhat more, but progress is clearly slower than is it for other benchmark indicators.

Stable differences between European countries: On most indicators, the differences between countries are quite stable. As regards quantity, the gap is closing as laggards are catching up. As regards Key Enablers however, the variance between countries is increasing.

Zooming in on individual life events, key findings include:

- Regular business operations is the life event which is best supported by eGovernment services on all indictors. The online availability has hit 90% of all services across Europe. The life event is not leading in the quality of these services however. Still, progress has Transparency, Cross border mobility and Key Enablers.
- Moving is the highest scoring life citizen-related life event. Moving is characterized by the high number of countries that have automated some steps in the process, which is reflected by a European mindset of User Centricity and using Key Enablers. A next step would be to show the same mindset to foreign citizens.
- Owning and driving a car has traditionally been a life event with a relatively low score. However, good progress has been made over the last two years, especially in providing eGovernment services to foreigners. Still, more services could be brought online. Currently, users will often find information only.
- Starting a small claims procedure is not a well facilitated journey for online Europeans. Significant progress has been made over the last few years, especially in bringing more information and services online, but the quality, transparency, and cross border friendliness are well below that of other life events.

The benchlearning approach clusters the countries investigated into groups. These groups are based on shared communalities between the countries. The indicators used are based around three subjects:

- Government supply: The spread of eGovernment services, including investments and efforts in innovation, diffusion and quality of services;
- eGovernment demand: Citizens' willingness to use online services. This includes factors that enable citizens to use the online channel, such as eReadiness, awareness and attitude of citizens;
- **Environment: Readiness of the background.** Some exogenous factors that are considered are socio-demographic data, ICT Readiness and Governance structure.

Using these indicators five distinct groups are distinguished. Using these fixed groups a multi-year analysis is conducted to see the change in performance regarding Penetration and Digitisation. Using Penetration and Digitisation as variables five clusters are identified: Neophytes, High Potential, Progressive, Builders and Mature. Using these groups of countries and the performance clustering the countries are able to learn from the good features of other countries.



Figure I: Overview of eGovernment Benchmark reporting

Group 1 is composed of countries with smaller populations that are relatively young, highly educated and of medium income (measured by GDP per capita); the level of centralisation of services in these countries is high.

Group 2 is composed of countries with the largest populations, and those with populations that are relatively older and have a level of education in line with the European Union average; the maturity of infrastructures and the take-up of the internet are also in line with the EU average.

Group 3 is composed of high income countries with relatively large populations that are highly urbanised, highly skilled in ICT, and more inclined to use e-commerce and e-banking services; the ICT infrastructure is highly developed; the level of centralisation is low. **Group 4** is composed of lower income countries with populations that are less urbanised and have a relatively low level of education level and relatively few digital skills; the infrastructures are not as highly developed in this group of countries; these countries also face higher perceived levels of public sector corruption.

Group 5 is composed of high income countries with small populations that are highly educated and very much inclined to use e-commerce and banking services; the infrastructures are very well developed; the level of centralisation of services is high; these countries face low perceived levels of public sector corruption.

Together, these findings provide a good insight into the state of play of European eGovernment at the beginning of the new 2016-2020 policy era.





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Introduction

1.1 Introduction

This edition of the eGovernment Benchmark shows the state-of-play of digital public services in Europe as of 2015. eGovernment services were assessed in 34 participating countries, including all of the EU28. The benchmark is a yearly exercise performed for the European Commission to monitor implementation of the eGovernment Action Plan's priorities. The assessment is conducted in close collaboration with Member States and besides comparisons aimed at providing insights to learn and improve.

1.2 Who should read this report?

Anyone who is interested in how governments are coping with the modernisation and digitisation of government services. The Benchmarking framework is constructed around key elements of eGovernment. The benchmark is built from a rich source of collected research data that is based on different methods, and in strong collaboration with participating countries. The results provide a robust and coherent insight into the current state of play in Europe.

To optimise follow-up of the research, the outcomes are reported through two reports, each addressing different audiences. This report is the **Background report**, which aims to deliver an impactful study on eGovernment. In the shorter **Insight report**, key findings and policy recommendations are provided.

Especially for those who are working with eGovernment on a daily basis. The

data processed in this measurement is broad (covering many domains) and deep (digging into the reality of the service processes from multiple angles). The report in front of you is called the **'background report'**. It aims to provide an extensive and detailed view of the performed measurements. The indicators that compose the framework are presented for each single life event under assessment, as well as at an aggregated level (covering the average of all life events). This report also includes extensive description of the peer-clustering exercise that has been performed to facilitate and encourage learning in Member States.

Researchers that want to reuse a rich data source to extract deeper insights.

The publication of both reports comes with a set of open, machine-readable data. This includes all life event assessments performed in 2015. The Commission's webpage also includes the data collected in life event assessments in 2012/2013/2014 as well as the demand-side user survey amongst citizens (2012).

1.3 Why read this report?

Benchmarking is an important aspect 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. eGovernment benchmarking can be defined as reviewing the performance of eGovernment between nations or agencies.

Benchmarking gives insight to the state of play of eGovernment services in the participating countries and is therefore an essential part of the response to current socio-economic challenges. 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 analysis includes constructing a well-defined baseline against which the

	Insight Report	Background report (this report)	Open research data
For whom?	Government leadership	Policy officers	Academics & research communities
What?	Key findings and recommendations	Detailed analysis of indicators and life events	All data collected in machine readable format and method
Purpose	Direct European and national eGovernment strategies	Realise direct improvements in public service delivery	Stimulate re-use of data and in-depth analysis

Figure 1-1: Overview of eGovernment Benchmark reporting

subjects of the study are compared. This will be used to analyse their performance, to establish good practices and to identify areas of strengths as well as inadequacies. In the context of eGovernment, it offers insight into how services can be made 'twice as good, in half the time, for half the costs' and can stimulate governments to respond faster and smarter. Benchmarking is the first step of a continuous benchlearning and improvement cycle.

1.4 A reading guide to this report

Apart from the introduction, this Background Report consists of the following sections:

- Chapter 2 provides an overview of the measurement, including policy priorities it addresses and how the research is executed;
- Chapter 3 provides the analysis of the top-level benchmarks for user centricity, transparency, cross-border mobility and key enablers and reveals the trends in eGovernment over time series between 2012 and 2015;
- Chapters 4 to 7 present the in-depth results for the life events that were measured in this edition: regular business operations, Moving, Owning and driving a car, and Starting a small claims procedure.
- Chapter 8 present the clustering analysis of countries based on relative indicators that allow to group coun-

tries with similar context and analyse performance in that context.

Complementary to this report are the country factsheets that provide an overview of results per top-level benchmark, per life event and the clustering analysis.

Measuring eGovernment

2

With this benchmark, the 2012-2015 Action Plan has also come to an end, and so now it is time look both backward and forward: backward towards two full cycles of the eGovernment Benchmark, and forward towards the editions to come during 2016-2020. In this chapter the position and methods of the eGovernment Benchmark are explained by looking at the old and new eGovernment Action plans.

> During the past decade, governments and other public organisations have increasingly started to recognise the importance of eGovernment, which encompasses the complete area of customers facing digital activities by public organisations. The previous versions of this benchmark showed a modest uptake as well as steady progress in the offering of eGovernment services in Europe. However, the uptake is still incomplete and actions need to be taken in order to fully benefit from the possibilities that today's technologies can offer.

> This report comes out at an interesting moment: it concludes the eGovernment Action Plan 2011-2015 and precedes the new eGovernment Action Plan 2016-2020. With the motto of *'Harnessing ICT to promote smart, sustainable & innovative Government*¹', the old Action Plan aimed to realise the ambitious vision contained in the Declaration made at the 5th Ministerial eGovernment Conference (the 'Malmö Declaration²'), which was also supported by industry³ and by a citizens' panel⁴. According to this ambitious vision, by 2015 European public administrations should be "recognised for being open,

flexible and collaborative in their relations with citizens and businesses. They use eGovernment to increase their efficiency and effectiveness and to constantly improve public services in a way that caters for user's different needs and maximises public value, thus supporting the transition of Europe to a leading knowledge based economy." It was this Action Plan that the current eGovernment Benchmark was built on, as you can read in the next paragraph in more detail.

The new Action Plan aims to remove existing digital barriers to the Digital Single Market and to prevent further fragmentation arising in the context of the modernisation of public administrations. This EU eGovernment Action Plan aims to be the instrument to join up efforts. While Member States pursue their own strategies and activities, this Action Plan – based on a shared long-term vision - sets out a number of principles that forthcoming initiatives should observe in order to deliver the significant benefits that eGovernment can bring to businesses, citizens and public administrations themselves. Now obviously this plan is not shockingly different in terms of underlying vision and leading principles. It steadily builds on what was once set out in Malmö providing stable directions towards 'Digital Public Services fit for the future' (the motto of this action plan⁵). But there is a difference in the development of the new plan, reaching out to and consulting a broad eGovernment community across Europe, and the actions that are the outcomes of this process. Not only will the Action Plan apply a more dynamic and flexible approach that

 $^{1 \}quad On line available here: https://ec.europa.eu/digital-single-market/en/european-egovernment-action-plan-2011-2015$

² See http://www.egov2009.se/wp-content/uploads/Ministerial-Declarationon-eGovernment.pdf

³ Declaration by "DigitalEurope", see http://www.digitaleurope.org/index.php?id=1068&id_article=390

⁴ Open declaration on public services 2.0, http://eups20.wordpress.com/the-open-declaration

⁵ Online available here: https://ec.europa.eu/digital-single-market/en/european-egovernment-action-plan-2016-2020



With the purpose of offering a more complete view of the state of eGovernment in EU27+, in line also with the eGovernment Action Plan 2011-2015 priorities the Commission would like to propose the inclusion in the Benchmarking Framework of indicators coming from two ongoing studies:

- Public Sector Information (PSI) re-use (DG Information Society): This study will be reporting on multiple dimensions of PSI like national
 policies, availability, pricing models, coverage of different formats
- eProcurement (DG Market): The outcome of this study will be (if successful) an automated collection of data from eProcurement
 platforms on the transactions they undertake (e.g. volume, value, characteristics of the participant firms and PAs).

Figure 2-1: The new eGovernment Benchmark framework

better allows to keep it up to date with fast evolving technology developments, it also lists several actions that explicitly list responsible directorates within the Commission (besides CNECT also DG JUST, GROW, TAXUD, MOVE, EMPL, SANTE, ENV, COMM and DIGIT⁶). The full benefits of eGovernment can only be realised through a collaborative and joined-up approach, and these developments are testimony to that. The second paragraph of this chapter will include an overview of the new action plan, and also introduces some changes that the eGoverment Benchmark will implement in the coming years to remain a relevant monitor that indicates state-of-play of implementation of eGovernment policy priorities across 34 European countries.

2.1 A retrospective on eGovernment developments between 2012-2015

The eGovernment Benchmark has been a monitor of eGovernment performance in Europe for over a decade. Commissioned by the European Commission, it now covers 34 countries and it annually presents its findings on the transition to a modern public sector. It builds on a solid methodological foundation which was developed in close collaboration with Member States and the Commission. Since 2001, the method has been updated several times in order to keep up with technological and organisational developments. In this way, the eGovernment benchmark aims at supporting public administrations to achieve cheaper, better and faster digital services.

6 For an overview of actions and owners, please see: https://ec.europa.eu/futurium/sites/futurium/files/egovernment_action_plan_-_overview_of_actions_for_platform_q2_2016_0.pdf

border services. It is connected to the Digital Single Market priority area. **Key Enablers.** This lop level benchmark assesses the availability of key enablers such as Single Sign On and eID functionalities. It is connected to the Smart Government priority area.

Most top level benchmarks consist of multiple sub-indicators. These are in turn measured by a number of questions regarding the quality or quantity of eGovernment services on a specific aspect. The next paragraph will discuss the methodology that was used to collect the data.

Method of data collection

2

The priority areas between 2012-2015 The framework is structured around four

main priority areas of the eGovernment

Action Plan 2011-2015 (e.g. User Empow-

erment, Digital Single Market, Efficiency & Effectiveness and Preconditions). These

priority areas are not indicators by them-

selves. Instead progress on every priority

area is measured by one or more indica-

tors, so-called **top level benchmarks**.

Four of these top-level benchmarks are

included in the 2015 measurement (e.g.

as shown by the green blocks in figure

 User-centric Government (or User Centricity) – as measured through Mys-

tery Shopping. This top level bench-

usability of public eServices and exam-

ines awareness and barriers to use. It is

connected to the User Empowerment

mark assesses the availability and

Transparent Government (or Trans-

parency). This top level benchmark

evaluates the transparency of gov-

ernment authorities' operations and

service delivery procedures and the

accessibility of personal data to users.

It is connected to the User Empower-

level benchmark, which is shown in

figure 2-1, is split into Citizen Mobil-

ity and Business Mobility. It measures

the availability and usability of cross

Cross Border Mobility. This top

2-1):

priority area.

ment priority area.

In order to assess all top-level indicators, the current benchmark uses the methodology of **Mystery Shopping**.

Mystery Shopping: the use of Mystery Shoppers who are trained and briefed to observe, experience, and measure a (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.

The advantages of Mystery Shopping:

- 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 them 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.
- An exception is the assessment of the Cross Border Mobility top-level benchmark. For Cross Border Mobility, all participation countries are assessed by two Mystery Shoppers from another country.
- For the cross-border evaluations neighbouring countries were chosen, based on the language spoken and the amount of trade between countries.
- Every mystery shopper evaluates government services in his/her own mother country. This contributes to the knowledge level of the mystery shopper, and it prevents language barriers.

	2012 + 2014	2013+2015
Business life events	Starting a business and early trading operations (Economic)	Regular business operations (Economic)
Citizen life events	Losing and finding a Job (Employment) Studying (Education)	Starting a small claims procedure (Justice) Moving (General administration) Owning and driving a car (Transport)

Figure 2-2: Overview of life events under assessment in 2012 - 2015

The Mystery Shopper's 'journey' is time-boxed, i.e. each mystery shopper has one day 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 the Mystery Shopping exercise, all results are validated by Member States. This is an intense collaborative process with 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 possibly correct obvious erroneous findings. There is one exception: the assessment of Ease and Speed of Use, which is a personal evaluation of the life event process by the researcher, and therefore the results of that measurement are nonnegotiable with the country.

Domains: life events.

To measure the state of play of eGovernment, this benchmark uses life events in order to cover as much as possible of the landscape of public services. This measurement has selected a set of seven life events that cover the most common domains of public services, representative for both businesses and citizens. Each life event is associated with a customer journey that businesses or citizens experiencing this life event will go through.

The seven life events are:

- Starting up a business and early trading operations;
- Regular business operations;
- Losing and finding a job;
- Moving;
- Starting a small claims procedure;
- Owning and driving a car;
- Studying.

Each life event is measured once every two years. This two-year cycle allows countries to arrange follow up on the results and to implement improvements after each measurement. This years' measurement allows for a second time full-cycle comparison, providing insights into progress made in countries and in Europe on average. Figure 2-2 provides an overview.

2.2 Making the eGovernment Benchmark fit for the future

Currently the European Commission is developing a new eGovernment Action Plan (2016-2020). Although this Action Plan is still under development with use of public consultation, the most important differences will be mainly in the focus of different priority areas. For the new Action Plan these priority areas will be⁷:

⁷ http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=15268

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 one-stop-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 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 Single Market 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.

Besides are different focus, the new Action Plan will not have a static five-year approach, but a more flexible, dynamic and iterative one, that allows for new ideas during the course of the Action Plan.

With the new eGovernment Action Plan, the method for benchmarking will also be updated to properly reflect priorities. For this reason several changes have been proposed⁸, amongst others the introduction of a new life event (addressing Family Life), evaluation of availability of key enablers in cross-border service provision and addition of new questions to other indicators (such as for Transparent Government: 'Can you monitor who has consulted your personal data and for what purpose?'). It will also perform a case study concerning the benefits of Authentic Sources.

⁸ E-Government Benchmark Method; an update for a new cycle 2016-2010. To be published together with these reports.

Synthesis of top-level benchmarks

'The industrial revolution of our time is digital. ... As companies aim to scale up across the Single Market, public e-services should also meet today's needs: be digital, open and cross-border by design. The EU is the right scale for the digital times.'

> Andrus Ansip, Vice-President for the Digital Single Market

Synthesis of top-level benchmarks

This chapter presents the synthesis of all top-level findings of the assessment. It reviews the status and the progress made for each of the four priority areas across different life events. Paragraph 3.2 provides an overview of the overall scores for the four priority areas and the seven life events. The remaining sections of chapter 3 elaborate on the scores in each of the four priority areas: User Centricity (3.3), Transparency (3.4), Cross-border Mobility (3.5), and Key Enablers (3.6). Finally, paragraph 3.7 presents the assessment of the mobile friendliness of public administration websites.

3.1 eGovernment services in various domains

As elaborately discussed in Chapter 2, the measurement of eGovernment services in this benchmark report is closely aligned with the four political priorities mentioned before. For each of the priority areas, top-level indicators have been developed, which evaluate in-depth the status of seven life events. These seven life events represent seven of the most important customer journeys, citizens and business will experience when interacting with the government. In this evaluation, among many other indicators, the provision of information for citizens and businesses as well as the mandatory interactions with governments are assessed.

This report presents the fourth measurement under this framework. The 2012 and 2014 edition assessed the scores for three life events (Starting up a business, Losing and finding a job, and Studying). The 2013 and 2015 edition assessed the scores for the other four life events (Regular Business Operations, Moving, Owning and driving a car, and Starting a small claims procedure). This 2015 benchmark is the last edition that falls under the 2011-2015 eGovernment Action Plan, and will therefore, for the first time, evaluate the progress of all life events over time.

3.2 Bird's eye view on eGovernment in Europe

Three main priority areas of the eGovernment Action Plan are shown in figure 3-1. Each of these priority areas was assessed by one or more top-level benchmarks in the 2015 exercise.

Figure 3-1 shows that noteworthy progress has been made for all top-level benchmarks. User Centricity (mystery shopping) continues to have the highest score (from 70 to 77). Although the User Centricity has increased for both businesses and citizens, the main reason for this increase is the fact that more services have become available for businesses (Online Availability rose from 72 to 81%). However, although services are increasingly more available, the other three indicators of User Centricity (Usability, Ease of Use, and Speed of Use) have improved only modestly by 2,7 percentage points on average.

To empower users, eGovernment services, organisations and data need to be transparent. The three sub-indicators for transparency (Transparency of: Service Delivery, Public Organisations, and Personal Data) have improved. The best improvement has been achieved by the Transparency of Service Delivery (9 percentage points, which brings the total to 47%). This means that citizens and entrepreneurs are increasingly more able to set expectations on time, process and delivery of the service. This allows



Figure 3-1: Top-level benchmarks EU28+ 2012/2013, 2013/2014, 2014/2015 (%)

them to efficiently plan their interactions with the government. Although some improvements have been made (resulting in an increase of 8 percentage points), the overall score for Transparency (56%) still leaves plenty of room for improvement in the years to come.

Even though cross-border services are far from the maturity level of national services, most progress has been made in the priority area Digital Single Market. The top-level benchmark for the Single Market (consisting of Business mobility and Citizen Mobility), is the cross-border equivalent of the User Centricity benchmark. It looks at Online Availability and usability of public services for cross-border users. On average, the score for Business Mobility has increased with 7 percentage points to 59 per cent, whereas the score for Citizen Mobility has even increased with 6 percentage points to 48 per cent. As is the case for User Centricity, the main reason for this increase is the amount of services available for foreign users: for citizens the maturity level score has improved from 36 to 53 per cent, while for businesses it has gone up from 51 to 64 per cent. It is important to note that, although Citizen

Mobility shows the greatest progress, it has the lowest absolute score of all top-,level benchmarks. Substantial work remains to be done in order to create a true Single Market without any barriers for citizens.

Finally, as is shown to the ultimate right of figure 3-1, the score for Key Enablers has improved with 5 percentage points. This means that 54 per cent of European eGovernment services currently make use of these Key enablers. It should also be noted that the progress over time is smaller than shown in other top level benchmarks (only 5 percentage points).

Figure 3-2 shows the progress that was made by each of the seven life events, illustrated by the average of all top-level benchmarks in this assessment. For all life events, the average score has improved in the second measurement compared to the first measurement. The highest score is for the business life events, namely Business Start-up (65%) and Regular Business Operations (70%). Starting a small claims procedure had the lowest score in 2012/2013 and still has the lowest absolute score in 2014/2015. However, for this life event,



Figure 3-2: Aggregated EU28+ results per life event (%)

the greatest progress has been made (10 percentage point increase). There is also substantial progress for Regular Business Operations (9 percentage point increase), Owning and driving a car (8 percentage point increase) and Studying (8 percentage point increase). On the other hand, whereas the score for the life event Losing and Finding a Job was relatively high in the first measurement, only limited progress has been made during the two years thereafter (3 percentage point increase).

The following paragraphs will discuss in more depth the composition of these scores. The next paragraph will start with the top level-benchmark indicator User Centricity.

3.3 User Centricity

The indicator User Centricity measures the extent to which the expectations of users are met. Citizens and businesses are em-

powered by eGovernment services which are designed to their needs. In this way, eGovernment services provide flexible and personalised ways of interacting and performing transactions with public administrations. To assess this top-level benchmark, both the supply side (What is available online?) and the demand side (What is the user experience online?) of eGovernment services are evaluated.

Online availability and usability increase but ease and speed of use do not follow that trend

The supply and demand side of User Centricity are assessed by two sub-indicators, resulting in a total of four sub-indicators. These are:

- Supply side:
 - Online Availability: Are information and services available online?⁹
 - Usability: Are support, help and feedback functionalities available online?

⁹ Please note that the scores of these indicators refer to a maturity level, ranging from 0% (offline), 50% (only information online and through portal), to 100% (fully online and through portal). Transactional services have a bigger impact on the score than informative services.



Figure 3-3: User Centricity by sub indicator; Online Availability, Usability, Ease of Use, Speed of Use (Across life events, EU28+, 2014/2015, %)¹¹

- Demand side¹⁰:
 - Ease of Use: Will users experience clear services that are easy to navigate?
 - Speed of Use: Will users experience services that take little time to complete?

Figure 3-3 presents the results for the top-level benchmark indicator User Centricity across three sets of life events: (i) all life events, (ii) all business life events, and (iii) all citizen life events. Moreover, each bar shows the scores in 2012/2013 and 2014/2015. In this way, this figure also indicates whether progress has been made over time.

The score for the sub-indicator Online Availability is 80 percent. This means an increase of 8 percentage points since the first measurement cycle (2012/2013). The gap between citizen-oriented and business-oriented life events continues to exist, as both scores have increased at the same pace. The sub-indicator Usability continues to have the highest score, with an average increase of 6 percentage points. This indicates that support, help and (interactive) feedback functionalities are online to a high extent.

Whereas the results on the supply side of User Centricity show high scores and substantial progress, the results on the demand side are less optimistic. Not only are the absolute scores relatively low (60% for Ease of Use and 57% for Speed of Use), there has also been hardly any progress over time. This is in line with previous eGovernment benchmark reports, which also found that insufficient attention has been paid to the quality of the user experiences of both citizens and businesses.

Quantity > Quality

The first step in creating user-centric eGovernment services is the online availability of information and services. The previous paragraph of this chapter has shown that the EU28+ has a high score (80%).

¹⁰ It should be noted that the demand side metrics are the personal reflections of the 2 mystery shoppers per country. They evaluated ease and speed of using services in a life event based on clear directions on how to give scores.

¹¹ A list of acronyms for the participation countries is included in the Appendix as Annex IV

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Figure 3-4: Online Availability versus other User Centricity indicators by country (2014/2015,%)

Figure 3-4 zooms in to the country-level in order to investigate differences among countries. Moreover, the score on Online Availability is compared to the average score of the other sub-indicators of User Centricity to make a comparison between the quality and quantity of services.

From figure 3-4 it becomes clear that the large majority of countries score higher on Online Availability than on the other indicators. However, merely providing the information and services online is not sufficient to create user-centric eGovernment services, which is necessary to enhance the empowerment of users. The only exception is Greece, which has a higher score on the 'quality' aspects of the online user experience. However, both scores are still in the bottom left side of the graph.

In figure 3-5 User Centricity scores are plotted according to their growth (in percentage points) and absolute performance (in per cents). Germany, Luxembourg, and Belgium have made notable increases, and are therefore nearing a decent 70 per cent value. The countries with an absolute performance below the EU28+ average also experience below average growth.

Comparing citizen and businesses life events

Figure 3-3 of this chapter showed that business-oriented life events score higher than citizen-oriented life events. The following figures reveal the differences between individual European countries. Figure 3-6 shows the results for citizen and business life events, including the EU28+ average.

Figure 3-6 shows significant variance across countries, both in absolute performance as well as in the progress made over time. High scores were attained by Malta (95%), Estonia (92%) and Austria (91%). The lowest scoring countries were Romania (47%), Montenegro (47%) and Hungary (49%). The figure also shows that all countries have made at least some progress over time. The biggest gains are



Figure 3-5: User Centricity, Growth vs. Absolute performance (2014/2015)



Figure 3-6: User Centricity for citizen and business life events by country (2014/2015, %)



Figure 3-7: Online Availability per government level by type of services, showing the 95% confidence interval (all life events, 2014/2015, EU28+, %)

for Luxembourg (14 percentage points), Germany (13 percentage points), Slovakia (13 percentage points) and Austria (13 percentage points).

Figure 3-6 also displays the scores regarding the User Centricity for business life events. There is less variation across countries with 20 out of 28 countries scoring above 75 per cent. The only country below 50 per cent is Montenegro, which newly entered the eGovernment benchmark this year. When looking at the progress over time, large differences can be observed. For a number of countries the User Centricity for business life events increased substantially, such as Denmark (19 percentage points),Latvia (15 percentage points) and Turkey and Germany (both 13 percentage points¹²).

National services are better online available than regional and local services

eGovernment services are not only provided by national governments, but also by regional and local governments. Figure 3-7 shows the availability of eGovernment services per government level. As the number of observations for some combinations of services and government levels can be relatively low for some life events, and high for others, the confidence intervals are shown as well (at the 95% level).

On average, national governments provide more information and services online than regional and local governments. Regional authorities provide relatively more information and extended services online than basic services. Regional authorities even outperform national governments with regard to the online provision of extended services.

Compared to the scores of previous editions, progress has been made for all three levels: the overall scores for national and regional governments have increased with 5 percentage point each, while local governments witnessed an increase of 2 percentage points. The increase in the overall score is especially due to an increase of extended services: on average these scores have increased 7 percentage points; especially for national and regional governments. It is important to note that government structures, and therefore

¹² Regarding the decrease in Serbia's score, please note that because since Serbia participates since 2013, in their case this is a methodological consequence, rather than a real decrease in scoring.

the level of authority and the available resources, can differ substantially across European countries.

For all government levels, the scores for the Online Availability of extended services are higher than the scores for basic (transactional) services. This is in contrast with previous versions of the eGovernment benchmark, underlining that progress has been made in the extent to which extended services are offered online. National governments show an increase of 8 percentage points, regional governments an increase of 10 percentage points, and local governments an increase of 4 percentage points. The confidence intervals are, however, relative large for extended services, suggesting high variability in scores.

Availability mode: offline information and services are disappearing

The previous paragraphs have examined to what extent information and services are provided online by governments. This paragraph examines how these services are made available online.

The following distinction is made between different modes:

- Automated services (dark green)
- Fully online services, via a portal (medium green), or not via a portal (light green)
- Information online, via a portal (yellow), or not via a portal (orange)
- Not provided online (red)

Figure 3-8 provides an overview of the scores for all the countries in the sample.



Figure 3-8: How services are made available by country (across life events, 2014/2015, EU28+, %)

For the EU28+ average, 60 per cent of all eGovernment services are offered fully online (dark and light green and blue bars). This is an increase of 7 percentage points compared to the scores of last year. For 34,5 per cent of all services, customers could not access the services fully online, but at least some information was available, via a portal (yellow) or not via a portal (orange). 5,5 per cent of the services is still not offered online. However, this percentage has decreased 3,5 percentage points in comparison to last year. Moreover, consistent with the previous eGovernment benchmark assessments, a relatively large share (84,6%) of all services is offered via a portal (medium green and yellow bars).

When looking at the individual countries, Malta and Portugal are still the leading examples, where the large majority of services are either automated or fully online. Compared to 2012/2013 edition of the eGovernment benchmark, a number of countries have made substantial progress. Lithuania, Luxembourg, Germany, Cyprus, Greece, Italy, Latvia, Slovenia as well as Slovakia have more than 10 percentage points increase in services that are fully available online (green bars). Moreover, the number of services that are not provided online at all is decreasing (ie 'offline'; red bars). Since this year, Austria, Estonia and Norway have no offline services anymore, indicating that for all services at least some information is available online. Malta and Ireland already reached that status. Automated services, on the other hand, show virtually zero progress for all life events combined. This could mean that offline services first become online available and are not automated right away.

In their respective chapters, a more detailed overview of the figure 3-8 will be presented per life event.

Quality of User-centric eGovernment services: Ease of use and Speed of use can be improved

Whereas the sub-indicator Online Availability provides insight into the quantity of eGovernment services available online, the other three sub-indicators (Usability, Ease of Use and Speed of Use) capture the quality of these services. Usability assesses the availability of support functions. Ease of Use and Speed of Use assess the user experience. Figure 3-9 shows how the countries in the sample score on each of these three sub-indicators.



Figure 3-9: Usability, Ease of Use and Speed of Use average across Life Events by country (2014/2015, %)

Figure 3-9 shows that countries score higher on the Usability of services compared to the Ease of Use and Speed of Use. Two exceptions are the United Kingdom and Hungary. Looking at the individual sub-indicators, there are differences across countries. Malta, Finland and Spain have a 100 per cent score for Usability of Services, indicating that support functions were available for all eGovernment services. On the other hand, in Hungary and Romania less than 50 per cent of online government services have support functions. For the Ease of Use, Malta is among the highest scoring countries as well, next to Estonia, the Netherlands and Denmark. Finally, Estonia, Iceland and Latvia are among the best scoring countries for the Speed of Use.

Usability: Support, help and feedback are improving

The previous paragraph has shown that countries score relatively well on the Usability of services, which measured as the availability of support functions. The next step is to examine how public administrations provide support, help and feedback. In addition, a comparison will be made over time in order to identify in which areas progress has been made. The results are shown in figure 3-10.

Almost all eGovernment services provide basic contact details, which can be used to contact the public administration. The scores for Multi-channel are also close to complete score of 100 per cent, indicating that governments can be contacted via different types of channels.

When needing assistance, customers can also consult Frequently Asked Questions (FAQ) or use demo/live chatting systems. Public administrations mostly provide FAQ sections (in 88% of the cases). Moreover, there is an increase of 6 percentage points in the use of demo/live chat on government websites. However, still progress is needed as it belongs to the least scoring indicators.

Regarding the feedback options, there has been substantial progress over time. 80 per cent of all eGovernment services now have feedback procedures (9 percentage



Figure 3-10: Usability scores per question across life events 2013 vs.. 2015 (EU28+, %)

point increase). In addition, governments increasingly use discussion fora (74%) and complaint procedures (71%). The availability of complaint procedures even increased with 10 percentage points between the first and second full measurement cycle.

3.4 Transparency to build trust and increase accountability

In the policy priority area of User Empowerment there are two top-level benchmarks. The previous section (3.3) has focused on the first: User Centricity. This section focuses on the second benchmark: Transparency. Being transparent can help to build trust between the government and its users. At the same time, transparency increases the accountability of policy makers¹³.

For the top-level benchmark Transparency, three sub-indicators have been assessed:

- Transparency of Service Delivery: assesses the extent to which public administrations inform users about the administrative process they have entered, e.g. from the users' request for a service until the service is delivered. Being transparent in this context means that citizens and entrepreneurs can set expectations on time, process and delivery of the service. This allows them to plan their interactions with the government.
- 2. **Transparency of Public Organisations:** assesses the extent to which governments publish information about themselves (e.g. finance, organisational structure and responsibilities), and about their activities (e.g. the decision-making process, regulations, laws). It should enable users to anticipate and respond to Government decisions that affect them and hold policy makers responsible for their

decisions and performance. It increases policy makers' accountability and fiscal responsibility, and decreases the risk of fraud and corruption.

3. Transparency of Personal Data: assesses the extent to which governments proactively inform users about their personal data and how, when, and by whom it is being processed. Citizens want easy electronic access to their personal data. It increases the legitimacy and security of data processing and it improves the quality and accuracy of the personal data stored. This in turn increases citizens' trust in governments. Most national governments have legislation on how to deal with personal data in place and there has been an EU Directive since 1995 (the European Data Protection Directive95/46/EC37).

Transparency is progressing slowly on average

Figure 3-11 provides an overview of the scores for each of the sub-indicators of Transparency. These are average scores for all countries and all life events. The first sub-indicator Service Delivery was the lowest scoring indicator in the first full measurement cycle (2012/2013) and is still the lowest scoring indicator in the second full measurement cycle (2014/2015). However, substantial improvement has been made as the score has increased with 9 percentage points. The second sub-indicator Public Organisations was the highest scoring indicator in 2012/2013 and is the highest scoring indicator in 2014/2015 as well. Finally, for Personal Data the score has increased with 8 percentage points; now scoring 55 per cent. Overall, the relatively low European average scores indicate that while transparency and openness is currently on the top of the new policy agenda for Europe, implementation of that priority still needs considerable work.

¹³ http://blogs.worldbank.org/governance/nine-lessons-bridging-gap-between-cities-and-citizens



Figure 3-11: Transparency per sub indicator across life events 2012/2013, 2013/2014, 2014/2015 (EU28+, %)



Figure 3-12: Transparency across life events by indicator per country (2014/2015, %)

Figure 3-12 zooms in to the country-level and shows how individual countries rank on the Transparency top-level benchmark as well as on each of its three sub-indicators. The figure clearly shows differences between countries. For the transparency of Service Delivery, Malta (97%), Estonia (81%) and Latvia (83%) are the highest scoring countries. Other countries have a very low score for this indicator, such as the Republic of Serbia (13%), Greece (14%) and Slovakia (16%). For the transparency about Public Organisations, the same countries (Malta, Estonia and Latvia) that score high on Service Delivery also score high for transparency of Public Organizations. The lowest scoring countries are Bulgaria, Hungary and Romania, which all score around 40 per cent.

Regarding the transparency of Personal data, Malta again has the highest score (100%), closely followed by Iceland and France (both 93%). Slovakia, Hungary, Romania, and Czech Republic are at the bottom of the figure, which have a score around 10 per cent.

Except for Malta, most countries score relatively well in one of the sub-indicators, but score markedly fewer percentage points on the other indicators. This variation might indicate that transparency is currently not being handled by governments in a coordinated matter.

Transparency of service delivery is improving but more clarity to users should be given

The sub-indicator Transparency of Service Delivery relies on seven questions. Each of the questions represents one aspect of the service delivery process. These questions have been answered for all countries and for all the steps of each life event. Figure 3-13 shows the European average scores on these questions.

As can be seen in figure 3-13, all scores have improved over time. Most progress has

been made in the transparency of Delivery timelines (12 percentage points), Service performance (12 percentage points) and the Length of the process (11 percentage points). This means that, on average, businesses and citizens better know what to expect during the use of a governmental service. While improvements have been made for all aspects of the delivery process, the absolute scores remain relatively low. All indicators, except for Delivery notice and Delivery timelines, are still below 50 per cent. This indicates that in more than half of the cases, part of the service delivery process is not transparent.

Two-third of public organisations is transparent as regards structure, policies and financing

The sub-indicator Public organisations relies on sixteen questions, each of which represents one aspect of the transparency on the policy and operations of public organisations. Figure 3-14 shows the average European score on these questions for both full measurement cycles (2012/2013 and 2014/2015).



Figure 3-13: Transparency of Service delivery across life events per question (2012/2013 vs.. 2014/2015, EU28+, %)

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Figure 3-14: Transparency of Public organisations per question across life events (2013 vs. 2015, EU28+, %)

The figure shows that the scores for all questions have improved over time. However, in some areas more progress has been made than in other areas. For instance, the scores for Organisational structure and Mission and responsibilities were already high in the first round, leaving little room for improvement. Moreover, progress has been made with regards to Budget (11 percentage points), Annual account (11 percentage points), Complaint info request (10 percentage points), and Scope of investment (10 percentage points). For some questions, the scores are still relatively low and limited progress has been made so far. Examples are: **External** reports from official external financial controllers (e.g. Court of Auditors) or external quality assurances, Participation (User's ability to participate in policy making processes), Monitoring methods employed for monitoring and assessment the administration's performance, and User's satisfaction with the administration's services.

Participation is another priority in the new eGovernment action plan, and similar to what was concluded for the transparency

indicators, there is considerable room for improvement. Regarding User's satisfaction, governments can make better use of feedback mechanisms to learn what can be improved in order to increase the Ease of Use and Speed of Use.

Overall, these results indicate that governments provide the most basic information about themselves online. However, substantial improvements are necessary in order to become more transparent in the other aspects. Governments could, for instance, provide more quantitative as well as external evaluations.

European countries have made progress with regards to the transparency of personal data

The sub-indicator Personal data relies on four questions. Figure 3-15 shows the average European scores and makes a comparison over time.

The figure shows that European countries have made substantial progress with regards to the transparency of personal data. The average score of all questions







Figure 3-15: Transparency of Personal data per question across life events (2013 vs.. 2015, EU28+, %)

has increased. In particular, big steps have been made regarding the notification of incorrect data, which now has the highest score (63%). However, this figure also indicates that there is still room for improvement. Although the score for complaint procedures has increased with 12 percentage points, they are available in less than half of the cases. The same applies for the possibility to modify data, which is available in 50% of the cases.

3.5 Cross Border Mobility: increasing mobility of citizens and businesses

One of the goals of the European Commission is the transition to a Digital Single Market, in which citizens and businesses experience an Internet without any borders. Vice President Ansip has envisioned the Digital Single Market as follows: *"a digital area:* where goods, people, services and capital move freely; where everyone can access and carry out online activities, across borders and with complete ease, safely and securely; where there is fair competition, regardless of nationality or place of residence, underpinned by a clear legal structure"¹⁴. In this context, mobility of businesses implies seamless services, without any burdensome procedures when crossing border within the European Union. Mobility of citizens means that citizens can work, live, retire and study in any European country, without any additional bureaucracy. It is important to note that the life event Losing and finding a job is not assessed for this top-level benchmark, as governments only support this life event for their own nationals.

Cross border services for citizens catching up with business services; both should improve to realise DSM

The top-level benchmark for the Digital Single Market measures the extent to which eGovernment services support Cross-border Mobility. This top-level benchmark is measured with the same sub-indicators as User Centricity. However, to assess Cross-border Mobility, the

^{14 20} January 2015 at a debate organised by the European Internet Foundation, see http://europa.eu/rapid/pressrelease_ SPEECH-15-3542_en.htm



Figure 3-16: Cross Border Mobility indicators for citizen and business life events; Online Availability, Usability, Ease of Use, Speed of Use (2014/2015, EU28+, %)

users originate from another participating country (e.g. a German mystery shopper that evaluates User Centricity of the life event Moving in the Netherlands, by going to Dutch websites looking for information and services).

Figure 3-16 shows the results for the four sub-indicators, making a distinction between business and citizen life events as well as between the two full measurement cycles.

Figure 3-16 shows that Online Availably for cross-border users increased over time (13 percentage point increase for business life events and 17 percentage point increase for citizen life events). The highest scoring indicator, Usability, also has increased in score (12 percentage points for business life events and 6 percentage points for citizen life events). This indicates that support, help and feedback functionalities are available online for foreign users in the majority of the cases. On the other hand, for two out of the three quality indicators hardly any progress has

been made during the past years (1-2 percentage points). In more than half of the cases, the user experience of foreign users leaves room for improvement. In their respective chapters, this phenomenon will be explained in more detail per life event. When comparing the scores of business and citizen life events, figure 3-16 shows that the combined business life events attain higher scores for all sub-indicators. The gap between the Online Availability of business and citizen life events has decreased over time, due to the large increase in the Online Availability of citizen life events. The opposite trend is present for the sub-indicator Usability, where the gap between citizen and business life events has become even larger. This is because of the 12 per cent increase in the Usability of business life events. The gap for the Ease of Use and Speed of Use has remained similar, as no progress has been made in these areas.

Figure 3-17 zooms in to the country-level by comparing the (national) User Centricity scores to the Cross-border Mobility scores.



Figure 3-17: National User Centricity versus Cross Border Mobility by country (2014/2015, across life events, %)

This figure shows whether countries are more focused on supporting users from their own home country or on users from other European countries.

All countries have higher scores for User Centricity than for Cross-border Mobility (below the orange 45-degree line). This indicates that eGovernment services are more suitable to domestic users than to foreign users in all countries. English speaking countries (e.g. the United Kingdom, Ireland and Malta) are scoring relatively well on both top-level benchmarks. This might be explained by the fact that language barriers are less an issue for these countries.

All countries have made progress over the past years. This is the result of an increased score for User Centricity, or Cross-border mobility or both. There is room for improvement for countries at the lower bottom of the figure. Countries closer to the bottom left part of the graph have low scores for both top-level benchmarks, indicating that progress needs to be made in the quantity and quality of eGovernment services for all users. On the other hand, countries closer to the right bottom score relatively high on User Centricity for domestic users, but are facing difficulties in providing online services for foreign users.

eGovernment services are more user-friendly to nationals compared to foreigners

Figure 3-16 already has shown that business-oriented life events attain higher Cross-border mobility scores that citizenoriented life events. Figure 3-18 further extends this analysis by zooming in to the individual life events. In this figure, the Cross-border mobility scores are compared with the User Centricity scores. Moreover, it also shows progress over time as the scores of both full measurement cycles are displayed.

The figure clearly shows that for all life events, eGovernment services are more

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Figure 3-18: National User Centricity versus Cross Border Mobility scores by Life Event (2013/2015, EU28+, %)

user-friendly to nationals compared to foreigners. The life events Starting up a business is least biased towards national users as it is the closest to the (orange) 45-degree line. The life events that provide the least support for foreign users are Starting a small claims procedure and Owning and driving a car.

Moreover, figure 3-18 shows that scores for both User Centricity and Cross-border mobility have increased for all life events. When looking in more detail at the change in percentages, it becomes clear that especially progress has been made with regards to Cross-border Mobility. The life events that show the most progress are Studying (13% increase) and Owning and driving a car (13%).

3.6 Key Enablers

The EU eGovernment Action Plan (2011-2015) highlights the importance of creating the necessary technical and legal preconditions that will enhance eGovernment services in Europe. These pre-conditions include the promotion of interoperability across borders, which will enable collaboration between different public administrations in Europe. Interoperability is supported through development of Key Enablers. An example of a Key Enabler is electronic identification (eID) technologies, which is essential for the security of electronic transactions.

Overview of the benchmark Key Enablers

The top-level benchmark Key Enablers focuses on five Key Enablers:

- Electronic Identification (eID): a government-issued, electronic identification solution to determine if the use is who he claims to be. Using eID enables online transactions, saves time and reduces costs for all actors involved.
- Electronic Documents (eDocuments): an electronic document reduces offline paper processes by allowing citizens and businesses to send authenticated documents online.
- Authentic Sources: base registries used by governments to automatically validate or fetch data relating to





Figure 3-19: Availability of the Key Enablers across life events (2012/2013, 2013/2014, 2014/2015, EU28+, %)

citizens or businesses. It facilities pre-filling of online forms and the implementation of the 'once-only principle', which implies that governments re-use data to deliver services automatically.

- Electronic Safe (eSafe): a virtual repository for storing, administering and sharing personal electronic data and documents. It can be used to securely store personal documents in public service processes.
- Single Sign On (SS0): a functionality that allows users to get access to multiple websites without the need to log in multiple times.

All of the five sub-indicators are assessed on their availability and quality.

In the first full measurement cycle (2012/2013), electronic identification (eID) was the Key Enabler that was provided most often. In the second first full measurement cycle (2014/2015), the most frequently available Key Enablers are eID, eDocuments and SSO. Progress has been made with regard to eDocuments (4 percentage point increase) and SSO (4 percentage point increase). However, no progress has been observed for the Key Enabler electronic identification.

The other two Key Enablers, Authentic sources and eSafe, scored relatively low in the first round. In the past years progress has been made, especially with respect to eSafe (9 percentage point increase). However, there still is room for improvement as in less than half of the cases, data is re-used or virtually stored.

Figure 3-20 compares the availability for business life events versus citizen life events. On average, the availability of Key Enablers is higher for business-oriented events than for citizen-oriented events. In the first full measurement cycle the gap was 10 percentage points, but it has increased to 14 percentage points in the second measurement cycle. The availability of Key Enablers is an important pre-requisite for the development of more advanced eGovernment services, which might explain why citizen life events score relatively low in this benchmark report.



Figure 3-20: Availability of the Key Enablers for businesses and citizens (2012/2013 vs.. 2014/2015, EU28+, %)



Figure 3-21: Key Enablers scores by country (2012/2013 vs. 2014/2015, %)

Key Enablers by country show strong variability

While the previous figure shows the average European scores, this paragraph zooms in to the country-level. Figure 3-20 shows the overall score for Key Enablers per country over time. The average availability of Key Enablers for the EU28+ was 49 per cent in 2012/2013 and has increased to 54 per cent in 2014/2015. While the average progress is 5 per cent, there is some notable variability across countries.

Malta and Estonia are among the highest scoring countries in the first measurement cycle, and have increased even more to 98 per cent confirming their 'digital' status. This indicates that for almost all eGovernment services, the Key Enablers are available. Romania and Slovakia belong to the lowest scoring countries, and





Figure 3-22: Mobile friendly public websites per life event (2015, EU28+, %)

have not made any progress over the last years. On the other hand, a number of countries show substantial progress over the past years: Belgium (19 percentage point increase), the Netherlands (18 percentage point increase), Luxembourg (17 percentage point increase), and Latvia (16 percentage point increase).

Moreover, when taking a closer look, it becomes clear that many countries score relatively well on one Key Enabler, but are lagging behind in another indicator. An example is Cyprus, which scores 86 per cent on SSO and 0 per cent on the availability of eSafe. Another example is Hungary, which scores 60 per cent for eDocuments, but scores 0 per cent for the availability of eSafe. This suggests that most countries take a step-by-step approach, by developing one Key Enabler at the time.

3.7 Mobile friendliness of public websites

On top of the 2014 and 2015 Mystery Shopping measurement, a study has been carried out to assess the mobile friendliness of public administration websites. This includes questions such as: Do these websites specifically support the use of mobile devices? Will citizens and businesses using websites via a mobile device (e.g. smart phones, tablets, etc) have a user experience equal to that of users who use traditional platforms? Research has shown that mobile friendly websites lead to a more positive user experience: in fact, if a commercial transaction cannot be done on a cell phone, it is estimated that 30 per cent of mobile users will give up the attempt to purchase¹⁵. It would make sense to apply the same standards for government services, since we are talking about the same users.

Three life events have been analysed in the 2014 round and four life events have been assessed in the 2015 round. Comparisons can be made across life events in the same round, but one should be careful in making comparisons across rounds because of the different execution years. Figure 3-22 shows the results per life event.

The figure shows that the European average is low for all life events. In the less than half of the cases, eGovernment services can be easily accessed on mobile

¹⁵ http://www.ieseinsight.com/doc.aspx?id=1784



Figure 3-23: Mobile friendly public websites per country (2015, EU28+, across life events, %)

devices. As a result, citizens and business who wish to interact with the government are likely to face a number of barriers. Examples of problems are the text of websites can be too small to read, the links can be too close together or the content can be wider than the screen.

Moreover, figure 3-22 shows that the life events assessed in 2015 all score higher than the life events assessed in 2014. The scores for 2014 are based on different life events than the scores for 2015. It is therefore not clear if the changes are due to progress over time or due to differences across life events.

For the 2015 measurement round, all life events have similar scores, with Regular Business Operations having the highest score (43%) and Starting a small claims procedure in the second place (37%). This figure also shows that business-oriented life events (Regular Business Operations and Starting a business) have a higher score than citizen-oriented life events. Figure 3-23 zooms in to mobile friendliness of government websites per country. The average EU28+ score increased from 27 per cent in 2014 to 41 per cent in 2015 which could indicate public administrations are catching up quickly for lost ground on mobile accessibility of their websites – though it must be noted that the sample contained different life events.

Most 'mobile-friendly' countries are Iceland (73%), Denmark (69%), United Kingdom (68%) and Norway (65%) who have managed to design over two-third of their websites for mobile devices.the European average stands at 35 %, so it can be concluded that for Europe on average it is exactly the other way around: two-third of public websites is not mobile-friendly.

3.8 Mandatory online services

A relatively new phenomenon in the eGovernment landscape, is digital by default. Digital by default implies that "online channels are promoted as the default channels of interaction, gradually reducing alternative channels (including physical counters) in order to improve efficiency"¹⁶.

16 https://ec.europa.eu/digital-single-market/en/news/eu-egovernment-report-2015-shows-online-public-services-europeare-smart-could-be-smarter



Figure 3-24: Mandatory online services (2015, per country, %)

A recent survey conducted by WiredGov¹⁷ shows that about one-third of the respondents working in the public sector said they did not have a policy or strategy for 'digital by default'. The main obstacle for this, is the widespread use of *legacy* systems, which "in the context of computing, refers to outdated computer systems, programming languages or application software that are used instead of available upgraded versions"¹⁸. According to the study, "only 2 percent of the respondents said the infrastructure for their digital services contained a small amount of legacy systems. Most of them had their digital services built on legacy systems, or had built their digital services as separate projects (silos) next to their legacy infrastructure"¹⁹.

The conclusion can be made that the use of legacy software has huge complications for the modernisation of eGovernmental services. Changing systems can be a costly and complicated procedure, nevertheless, steps have to be made to future-proof government services. The authors of the survey foresee that in a way public organisations are forced into this direction, due to reduced budgets: legacy systems are often costly to maintain, due to patching and modifications. By replacing expensive legacy systems with new, mostly opensource systems, money can be saved and services can be future-proofed.

Besides the internal way of working, digital by default is also about offering services online through the online channel. Figure 3-24 illustrates to what extent countries have made services mandatory. It is much more common to make services mandatory online for businesses than it is for citizens. Only very few countries are taking this approach at the moment: Denmark as leading example in this, followed by the Netherlands and Iceland.

¹⁷ http://www.wired-gov.net/wg/directory.nsf/campaign/Integration+Platforms+for+the+Government+Sector+2016+Wired Gov+Survey+Report

¹⁷ https://www.techopedia.com/definition/635/legacy-system

¹⁸ https://joinup.ec.europa.eu/community/opengov/news/legacy-systems-complicating-digital-default

Regular Business Operations

"Consider what happened to the three previous industrial revolutions. Do we talk about the steam economy or the electricity economy? Do we talk about the mass production economy? Do we even talk about the computer economy? No, because they changed everything.

So in less than ten years time, we will know "the digital economy" by another name: 'The economy'."

> Commissioner Elżbieta Bieńkowska (Internal Market and SMEs)

Keynote at the EC Conference on Digitising European Industry (25th April 2016)

Regular Business Operations

In this chapter all relevant indicators will be discussed for the life event Regular Business Operations. Firstly, the life event will be introduced shortly, after which User Centricity, Transparency, Cross-border mobility and Key Enablers are discussed.

4.1 Introduction to the life event

Since 2007, the reduction of the administrative and regulatory burden on businesses is a top-priority for the European Commission²⁰. In order to have a healthy and competitive European economy, there should be a favourable European business climate. On one side, entrepreneurs should be willing to start businesses and to invest in them. On the other side, they should be empowered to maintain and grow their business.

In 2012 and 2014 the eGovernment benchmark measured to what extent governments allow entrepreneurs to *start up* their businesses quickly and easily through eGovernment services. In 2013 and in the latest 2015 eGovernment benchmark, services that support entrepreneurs in executing their *Regular Business Operations* in an efficient manner with a low administrative burden are evaluated.

A recent study from the EC²¹ shows that about 50 per cent of new businesses fail during their first five years. Part of this failure is due to the absence of a growth enabling ecosystem. Especially Small and Mediumsized Enterprises (SMEs) experience a heavy burden of regulatory and administrative costs. For SMEs, these costs can be up to ten times higher than for larger companies²². As SMEs make up 99 per cent of European businesses²³ a considerable reduction of administrative and regulatory burden is needed in order to create a resilient European economy.

Electronic services are an important part of this reduction and constitute the backbone of a business-friendly ecosystem. A comprehensive, well-structured and need-based/ personalised online information provision (e.g. through a Single Point of Contact) saves businesses costs in searching for information²⁴. By increasing transparency with regards to government procedures, policy making and legislation, the trust of business owners in public institutions can grow. Effective support in the provision of online business networks or training and coaching facilities helps companies to overcome the first barriers of running a (new) business. Simplified VAT registration and other tax procedures would remove high compliancy costs for businesses and facilitate crossborder commerce²⁵. The same applies to the ability to comply with other administrative requirements on a remote basis, such as submitting financial reports, submitting company data, paying social contributions and reporting illnesses.

The 2015 eGovernment Benchmark measures the maturity of a set of electronic government services for *Regular Business Operations* on the national, regional, local and cross-border level. It aims to stimulate governments to improve their business climate. The services are measured from the perspective of the user; in this case the entrepreneur.

²⁰ http://ec.europa.eu/dgs/secretariat_general/admin_burden/docs/abr_delivering_on_promises_en.pdf

²¹ http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF, p.10, 11

²² http://ec.europa.eu/enterprise/policies/sme/business-environment/administrative-burdens/

²³ http://europa.eu/legislation_summaries/enterprise/business_environment/index_en.htm

²⁴ http://ec.europa.eu/enterprise/policies/sme/files/support_measures/regmod/regmod_en.pdf (May 2007, many examples)

²⁵ http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF , p.10, 11

Key findings

- Regular Business Operations is the highest scoring life event of all life events, on all indicators.
- For almost all countries, Online Availability has increased notably. Nine countries even achieved the highest possible score for this indicator.
- Although Online Availability and Usability score high, more attention could be paid to the actual user experience, in order to increase the Ease and Speed of Use.
- Transparency of Government shows steady progress in all its aspects (Service delivery, Personal data, and Public organisations).
- Cross-border Mobility scores are high compared to other life events. However, the average scores for cross-border users are 22 percentage points lower than for national users. Additional improvements need to be made in order to achieve the aim of the European Single Market.
- The use of Key Enablers has, on average, improved by 14 percentage points.

4.2 User Centricity

Figure 4-1 shows the average score of the EU28+ for each of the four components of User Centricity of the government services related to the *Regular Business* Operations life event. The Online Availability and Usability of services keep scoring relatively high with respectively 90 and 88 per cent. Noteworthy, these two averages are the highest averages of all life events, and of all indicators. This means that for the vast majority of services in this life event at least some information is available online and that businesses are well guided in using the government services through, for example, demos, FAQs and clear contact details. This can increase the Usability of government services to a large extent.

This is, however, in contrast to the relatively low scores of the perceived Ease of Use and Speed of Use, which remained at the same level as in 2013. This suggests that more attention could be paid towards the user experience of services, than merely making services available or



Figure 4-1: Four components of User Centricity for Regular Business Operations Online Availability, Usability, Ease of Use and Speed of Use (2013 vs.. 2015, EU28+, %)



Figure 4-2: Correlation Online Availability versus Usability + Ease of Use + Speed of Use by country for Regular Business operations (2015, %)²⁶

more complete. Businesses are still likely to experience a considerable burden in complying with administrative government requirements and government services remain a barrier for running a business smoothly. To put things into perspective: the discrepancy between scores for Usability and Online Availability on the one hand, and Ease and Speed of Use on the other hand, is a phenomenon which occurs throughout all life events.

This finding is also supported by figure 4-2: whereas countries closer towards the reference line show a high correlation between Online Availability versus Usability + Ease of Use + Speed of Use, most countries clearly score below this line. This implies that, on average, more attention is paid to getting services online, and less to user experience-related components of a service.

A positive note regarding Online Availability is that all but three countries have passed a score of 80 per cent. In fact, a total of nine countries have achieved the highest possible score of 100 per cent, which means an increase of four countries with that score, in comparison to 2013. These countries are Austria, Denmark, Estonia, Finland, Latvia, Malta, Portugal and the United Kingdom. What also should be noted is the score of Montenegro (ME): since 2015 is the year in which Montenegro entered the eGovernment benchmark, this score can be regarded as a baseline measurement on which government services may be improved in the years to come.

Online Availability

Analysing figure 4-3, it becomes clear that although some countries show a small setback (Serbia, France and the Netherlands), on average, scores have increased 8,4 per cent throughout Europe.

Countries that show the strongest relative increases are Romania (up 51% compared to the previous year), Germany (36%), Cyprus (33%), and Turkey (30%). These

²⁶ Montenegro (ME)_not on the chart; Online availability 49%; Average for Usability/Ease of Use/Speed of Use 28%.



Figure 4-3: Online Availability in 2013 and 2015 for Regular Business Operations per country (%)



Figure 4-4: How services are made available for the Regular Business Operations life event (2015, EU28+, %)

fast growing countries are followed by a large number of 11 other countries that are showing double digit growth.

When exploring the way services are provided in figure 4-4, it becomes clear that only 6 out of 397 services are automated (1,5%). However, when compared to the percentage of services and information about services online available, it can be concluded that Regular Business Operations is leading the way for other life events. For example, for the life events Starting a small claims procedure and Owning and driving a car, there are still relatively large numbers of services being provided offline.

Starting business versus established businesses

Just like Regular Business Operations, Starting a business is a procedure that every business will encounter. As Starting a business is also measured as a life event of its own (in the 2012 and 2014 exercises), it can be interesting to compare which life event is better supported by online services. Figure 4-5 compares how countries score on Online Availability in both life events.

Although the averages for both life events are high (82% for Business Start-up and 90% for Regular Business Operations), figure 4-5 shows a tendency towards a



4

Figure 4-5: Online Availability for Starting up a business life event vs. Regular business operations event by country (2014/2015, %)



Figure 4-6: Three components of Transparency for Regular Business Operations: Service delivery, Public organisations and Personal data (2015, EU28+, %)

higher Online Availability maturity level for Regular Business Operations. This especially holds for countries that score below 70 per cent on Business Start-up availability (i.e. Serbia, Croatia, Hungary, Slovakia, Bulgaria, Greece, and Romania). On average, these countries score 57 per cent on Business Start-up and 80 per cent on Regular Business Operations. Countries on the other side of the 45-degree line (e.g. Switzerland, Slovenia, Norway, and Belgium) are leaning more towards the Availability of Business Start-up, but the difference here is that both indicators are relatively well-developed.

4.3 Transparent Government

Running a business can be quite demanding of its own; therefore knowing what to expect from government organisations can mean the difference between running a business smoothly and constantly being caught surprised by government actions. Because of this, Transparent Government is an important indicator. Figure 4-6 shows the EU28+ scores on the three sub-indicators of Transparent Government: Transparency on Service delivery, Personal data and Public organisations.

Transparency on public organisations has a score of 64 per cent (EU28+), suggesting that government departments which deal with starting businesses are generally quite open about their own operations. This score has increased 5 percentage points since the last measurement two years ago. Similarly, the scores for Personal data and Service delivery have increased in the same manner (resp. 68 to 73%, and 47 to 60%). This means that governments are increasingly more transparent with regards to the personal data involved, and regarding the process of service delivery. This positive trend is visible throughout all life events but in absolute scores, Regular Business Operations has the highest scores for Transparent Government of all life events.

Figure 4-7 below further examines Transparent Government for this life event with a view by country.

Figure 4-7 shows that variation between the three sub-indicators is high. This makes it difficult to explain or predict why countries that score high on, for example, Service delivery (Germany, 95%), score relatively low on Personal data (17%) at the same time. Moreover, the exact opposite is also possible: Finland scores low on Service delivery (29%) and high on Personal data (100%). This variation suggests that in general, few public organisations that work with Regular Business Operations have a consistent approach to transparency. Notable exceptions are Malta and Estonia, which score high on all three indicators

A similar trend of high variation is visible in all other life events, as will be explained in their respective chapters. Regular Business Operations does, however, stand out against them: with an average score of 66 per cent it has the highest aggregated score for Transparent Government of all life events.



Figure 4-7: Three components of Transparency for Regular Business Operations: Service delivery, Public organisations and Personal data per country (2015, %)

4.4 Cross Border Mobility

Cross-border Mobility of businesses is one of the key pillars of EU policy to create a true Digital Single Market, thereby increasing the competitiveness of Europe. This is especially important for entrepreneurs who want to start a business in another country or businesses which are setting up a branch abroad. The Digital Single Market evaluates to what extent they are supported by eGovernment services. Figure 4-8 shows the scores for the Regular Business Operations life event on the four sub-indicators of this top level benchmark.

As outlined in previous chapters, the subindicators for Cross-border Mobility are equal to the sub-indicators for User-centric Government. The difference here is that foreign users are taken into account: in this case, entrepreneurs or businesses that have set up a business in a foreign EU28+ country.

In general, online services do exist for cross-border users, and scores on all four sub-indicators are generally much higher than those for other life events. This shows that with regard to these indicators of eGovernment services, governments treat incoming businesses more successfully than citizens. However, scores are far from perfect: scores for Online Availability (64%), Ease of Use (50%) and Speed of Use (44%) still leave much room for improvement.

Over the last two years more services have come online (e.g. Online Availability has increased by 15 percentage points) and the corresponding support functionalities also have been improved (e.g. Usability has increased by 9 percentage points). Unfortunately, the user experience for crossborder businesses has not improved in the same manner: Ease of Use and Speed of Use respectively scored 2 and 1 percentage point above their 2013 scores. This suggests that European efforts to support business start-ups across borders have been focussed more on supply and less on wishes and demands from users. The latter is a problem for national indicators and life events as well.

However, when comparing the absolute scores from figure 4-8 with national scores for Online Availability and Usability, crossborder users still have much to wish for. As shown in figure 4-9, Online Availability is 26 percentage points lower for cross-border users than for national users, and this trend also is visible for all other indicators: on average, cross-border scores are 23 per



Figure 4-8: Cross Border Mobility; Online Availability, Usability, Ease of Use and Speed of Use for Regular Business Operations (2013 vs. 2015, EU28+, %)

Indicator:	National users (score 2015)	Cross-border users (score 2015)	Difference (in percentage points)
Online Availability	90	64	-26
Usability	88	71	-17
Ease of Use	61	50	-9
Speed of Use	57	44	-13

Figure 4-9: Cross Border Mobility for Regular Business Operations per country (2013 vs.. 2015, %)



Figure 4-10: Cross-border Mobility for LIFE EVENT Regular business operations per country (2013 vs 2015, %)

cent lower than scores for national users. Cross-border users are a group that should not be overseen. Foreigners often prove to be an indispensable source of knowledge, labour, and income; especially in our European Single Market.

Figure 4-10 examines the online support for Cross-border Mobility for starting businesses by country. Scores in this graph are for the Digital Single Market top-level benchmark, i.e. the weighted average of the four sub-indicators. Although some countries score relatively high, and although the majority of the countries show promising growth rates for 2015, the EU28+ average still is quite low as compared to scores for the national indicators for User Centricity. Inevitably, low cross-border scores for this life event lead to less cross-border commerce, and they therefore deserve more attention of European governments. The European Single Market of the EU28 alone has over half a billion inhabitants and over 25.6 million businesses²⁷; if we

²⁷ http://ec.europa.eu/eurostat/statistics-explained/index.php/Business_demography_statistics

fail to treat cross-border business users in a more appropriate way, we fail to utilise the European advantage economically at its full potential.

4.5 Key Enablers

Depending on the business environment, running a business can cause considerable administrative burdens. Key Enablers can reduce this burden as they provide a pre-requisite for fully transactional eGovernment services and reduce the number of steps to take and the amount of data to submit.

Figure 4-11 shows the availability of the main Key Enablers within the Regular Business Operations life event: eID, eDocuments, Authentic Sources, eSafe and Single Sign On.

On average, the scores for Key Enablers have increased 27 per cent since 2013. Electronic means of authentication (eID) and Single Sign On (SSO) attain the highest scores in this life event, scoring 72 per cent and 76 per cent respectively. However, the scores for formally recognised electronic documents (eDocuments) and Authentic Sources have increased impressively, by a 37.5 per cent and 52 per cent respectively. This is the first time the Key Enablers of any life event all score above 60 per cent. The progress made in the past two years shows a promising trend; one that hopefully will be continued. A good illustration is Germany, that progressed to 97% (from 40% in 2013) and consequently also saw its user centricity rise to 88%.

Due to the high administrative burden that businesses normally face, Regular Business Operations is a life event that can benefit highly from Key Enablers. In figure 4-12, the use of Key Enablers is shown per phase for this life event. As can be seen, European public organisation make good use of Key Enablers in almost all phases of this life event.

4.6 Overall

To provide an overall summary for this life event, figure 4-13 shows the scores of all four top-level benchmarks: User Centricity, Transparency, Cross-border Mobility and Key Enablers.

Compared to other life events, the life event of Regular Business Operations scores relatively well on all four top-level benchmarks. All indicators of this life event show the highest scores of all life



Figure 4-11: Availability Key Enablers within the Regular Business Operations life event (2013/2015, EU28+, %)



Figure 4-12 Use of Key Enablers per phase of life event Regular business operations



Figure 4-13: Four top level benchmarks Regular Business Operations: User Centricity, Transparency, Cross Border Mobility and Key Enablers (EU28+, 2013 vs.. 2015, %)

events measured to this date. This can be partially explained by the fact that business-oriented life events tend to score better. Overall, Europeans who are running a business will find themselves relatively well supported. However, there is high variance between countries and, on average, cross-border users get relatively little attention as compared to national users. The life event has seen good progress over the last two years: User Centricity (for domestic start-ups) increased by 4 percentage points, Transparent Government increased by 8 percentage points, Cross-border Mobility (i.e. User Centricity for foreign start-ups) increased by 11 percentage points, and Key Enablers even shows an impressive 14 percentage point increase.

Moving

"The challenges of the digital revolutions are important. However, the benefits we will reap, if we are successful in digitising our economy and society are much greater. We must master the challenges of the digital revolution together."

> Commissioner Günther H. Oettinger (Digital Society)

Keynote at the Mobile 360 Europe event (14 June 2016)

Moving

In this chapter all relevant indicators will be discussed for the life event Moving. Firstly, the life event will be introduced shortly, after which User Centricity, Transparency, Cross-border mobility and Key Enablers are discussed.

5.1 Introduction to the life event

To achieve a Single Market in Europe, citizens should be able to move and reside freely within their country as well as across other countries within the European Union. It is therefore essential that citizens can arrange their moving without having to spend too much time and resources on understanding administrative procedures and interacting with public services.

5

When providing eGovernment services, public authorities should therefore aim to reduce administrative burdens for citizens. This can, for instance, be done by the smart use of available information (e.g. once-only registration or pre-filled forms) or by implementing interoperable services that allow for smooth remote information exchange.

For instance, when moving, the change of address needs to be reported to different institutions. Municipalities or national registration agencies could exchange information with relevant authorities to smoothen the moving procedures (e.g. pension or health insurances, schools, tax agency, utilities, land registers, post office). This requires an integral approach in which administrative barriers are removed and public organizations collaborate intensively. This can facilitate citizen mobility accordingly, both nationally and across borders.

Moreover, better use of information can save costs and resources for governments. It prevents double registrations and errors. In addition, it reduces the risk of criminal activities such as illegal housing, illegal citizenship and benefit fraud.

Besides facilitating moving by simplified administrative procedures, government authorities need to stimulate social cohesion. For citizens from abroad, as well as for country residents, this starts with informing them on their rights and obligations in the country of residence. To actually build a community, citizens should also be stimulated to actively participate in society. Information provision on local facilities, such as schools, sports and cultural activities, can help citizens to find their way in the local community.

The 2015 eGovernment Benchmark measures the maturity of a set of electronic government services for the life event *Moving* on the national-, regional-, local- and crossborder-level. In this way, it aims to stimulate governments to facilitate citizen mobility.

Key findings

- An increasing number of countries have a 100 per cent maturity score for Online Availability for the life event *Moving*.
- European citizens face more transparency when moving to a different location.
 However, there is variance in the priorities given by European countries.
- Compared to national users, foreign users face more difficulties in arranging their moving online.
- The life event *Moving* is already quite advanced in the development and adoption of key enablers.
- The option to notify additional organizations online with the help of Key Enablers is available in the majority of the cases.

5.2 User Centricity

Figure 5-1 shows the average score for each of the four sub-indicators of the toplevel benchmark User Centricity related to the life event Moving. Online Availability, which measures the extent to which government services are available online, has increased to a maturity level of 85 per cent, indicating that in the majority of the cases at least information is online, and in some cases even the whole service. Compared to the other life events, this score is relatively high. Moreover, this sub-indicator shows the greatest progress since 2013, namely an increase of 11 percentage points. Progress has been made



Figure 5-1: Four components of User Centricity for Moving: Online Availability, Usability, Ease of Use and Speed of Use (2013 vs.. 2015, EU28+, %)



Figure 5-2: Correlation Online Availability versus Usability + Ease of Use + Speed of Use by country for Moving (2015, %)

for the sub-indicator Usability as well (e.g. an increase of 5 percentage points), now scoring 83 per cent. This indicates that support, help and (interactive) feedback functionalities are online in the majority of the cases.

The scores for Speed of Use and Ease of Use have remained at the same level over time (less than 1 percentage point increase). This is alarming as both scores are relatively low and hardly any improvements have being made over the past two years. Figure 5-2 confirms that the majority of the countries score higher on the online availability of eGovernment services than on the 'quality' aspect, such as Usability, Ease of Use and Speed of Use (below the orange 45-degree line). Only one country (Poland) shows the opposite trend and scores relatively high on the 'quality' aspects of the user experience. An interesting finding in Figure 5-2 is that a number of countries score 100 per cent on Online Availability: Portugal, Austria, Norway, Malta, Sweden, France, Finland, Denmark and Iceland. Moreover, these countries also score relatively high on the 'quality' of the online user experience.

Montenegro is included for the first time in the benchmark and already shows a relatively high score on online availability (87%), which is above the EU28+ average (85%).

To evaluate whether and which countries made progress on the Online Availability of eGovernment services, Figure 5-3 displays the scores at the country-level for both 2013 and 2015. The figure confirms that a number of countries succeeded in improving the online availability of moving procedures. Denmark, Finland, Iceland, Norway, France and Austria all made noteworthy improvements and now achieved the 100%-level. This shows that increasingly more information about services, and services themselves can be found online for the Moving life event. The largest improvements are, however, made by the Republic of Serbia (40 percentage points), Slovakia (36 percentage points) and the Czech Republic (33 percentage points). In this way, these countries have substantially caught up with the leading countries. These three countries are great examples for the countries that are lagging behind as they show that a lot of progress can be achieved in a short amount of time.



Figure 5-3: Online availability in 2013 and 2015 for Moving per country (%)

There are not only differences across countries, but also across different steps in the life event Moving. Figure 5-4 shows for each of the steps to which extent the activity is fully automated, online available or only available in an offline context (face-to-face). There are large differences across the different steps. Notification to post and utilities is, for instance, already to a large extent automated.

5.3 Transparent Government

When moving to a different location, transparency throughout the process is

important. Citizens need to be informed about the status and the length of the process. In addition, citizens need to be able to find information about the public organisation itself, such as to familiarize themselves with the local procedures and regulations. Furthermore, citizens' addresses are personal data. Governments need to be transparent about the additional organisations that will be notified about the new address.

Figure 5-5 displays the average EU28+ scores for the three sub-indicators of



Figure 5-4: How services are made available for the Moving life event (2015, EU28+, %)



Figure 5-5: Three components of Transparency for Moving: Service delivery, Public organisations and Personal data (2015, EU28+, %)

5

Transparency for 2013 as well as 2015. Service delivery has the highest score (64%), closely followed by Public organisations (63%). The score for the sub-indicator Personal Data is 52 per cent. The figure illustrates that for all sub-indicators, substantial improvements have been made. Personal Data and Service Delivery both show an increase of 12 percentage points, and the score for Public organizations has also increased by 8 percentage points. In summary, this indicates that European citizens can work with more transparent governments when moving to a different location.

Next, figure 5-6 zooms in to the countrylevel in order to investigate differences between countries. As the average line shows there is substantial variation across countries. Malta, Latvia and Norway are, on average, the leading countries with respect to the transparency of eGovernment services. For these three countries, all sub-indicators score above 80 per cent.

Regarding the sub-indicators, there is variety in the leading countries. For the subindicator Service delivery, the highest scores are for Malta, Latvia, Portugal, and Lithuania (all 100%). Regarding the sub-indicator Public organisations, the leading countries are Finland (98%), Malta (94%), Estonia (94%) and Norway (87%). Furthermore, Malta, Iceland and France have all achieved a 100 per cent score for the sub-indicator Personal Data. In summary, only Malta is a consistent leader on all domains of transparency, while the other leaders differ per indicator.

Figure 5-6 also shows that some countries score relatively well on one sub-indicator, but lag behind on the others. An example is Slovenia, which scores relatively high (76%) on Service delivery but not on Personal Data (17%). The opposite is the case for Greece, which scores relatively high on Personal data (67%) but not on Service delivery (7%). This indicates that high variance exists in the priorities given by European countries with regard to transparency.

5.4 Cross Border Mobility

To achieve a Single Market in Europe, citizens need to be able to live and work in any of the European countries, and in order to do so, move freely and easily



Figure 5-6: Three components of Transparency for Moving: Service delivery, Public organisations and Personal data per country (2015, %)

across borders. The availability and quality of the eGoverment services supporting Moving across borders will be evaluated in this paragraph. The assessment of the Cross-border Mobility is done by foreign users. Figure 5-7 shows the average EU28+ scores for the life event Moving on the four sub-indicators of this top-level benchmark.

The top-level benchmarks User Centricity and Cross-border Mobility consist of the same sub-indicators (though assessed from a different perspective). It is therefore interesting to see whether foreign users are served to the same extent as national users. Figure 5-8 shows large differences on all sub-indicators. The largest difference concerns the sub-indicator Online Availability. Compared to national users, foreign users face more difficulties in arranging their moving online. This is an important barrier in the free flow of people across national borders, which is a pre-requisite for the achieving a true European Single Market.

Figure 5-9 extends the analysis by showing the scores for Cross-border Mobility per country. The scores represent the weighted average of the four sub-indicators. The figure shows that in some countries foreign users could very easily arrange the moving procedures online.



Figure 5-7: Cross Border Mobility; Online Availability, Usability, Ease of Use and Speed of Use for LIFE EVENT General administration: moving (2013 vs 2015, EU28+, %)

Indicator:	National users (score 2015)	Cross-border users (score 2015)	Difference
Online Availability	85	60	-25
Usability	83	66	-17
Ease of Use	58	48	-10
Speed of Use	56	43	-13

Figure 5-8: Cross-border users vs. National users; Online Availability, Usability, Ease of Use and Speed of Use for General administration: Moving (2013 vs. 2015, EU28+, %)

5

These are all Scandinavian countries: Finland (96%), Norway (94%), Sweden (94%) and Denmark (91%). Moreover, it also becomes clear that in a large set of countries is still difficult to arrange this life event online as the EU28+ average score is only at 58 per cent. On the other hand, large improvements have been made across Europe. Especially Turkey (increase of 49 percentage points) and Germany (increase of 43 percentage points) show substantial progress. Moreover, this indicates that even within a small amount of time (two years), large changes can be made.

5.5 Key Enablers

To facilitate the process of arranging citizens' movement to a new location, public organisations can use Key Enablers. Not only do these Key Enablers reduce the number of steps that need to be taken, but also the amount of information that needs to be provided by the citizen. For instance, by using pre-filled forms, the system automatically fills in the current address of the citizen. Moreover, the use of electronic identification will fasten the validation of the provided personal data. Figure 5-10 shows the average EU28+ scores for the main Key Enablers. eDocuments, eID and Authentic sources have high scores for the life event Moving. More specifically, the life event Moving has the highest scores on these three Key Enablers compared to the other life events. This indicates that the life event Moving is already quite advanced in the development and adoption of Key Enablers. On the other hand, substantial movements still need to be made in the provision of the Key Enabler eSafe, which allows citizens to store data online. Figure 5-10 also shows that most scores have slightly decreased over time. This might be due to changes in existing websites, the addition of new websites or the change in the number of countries that have been included in the analysis.

As a next step, figure 5-11 zooms in to the availability of Key Enablers for the different phases of the life event Moving. The option to notify additional organizations with the help of Key Enablers is available online in the majority of the cases, reducing the amount of steps that need to be taken when citizens move to a different



Figure 5-9: Cross-border Mobility for 'General administration: moving' per country (2013 vs 2015, %)



Figure 5-10: Availability of Key Enablers within the Moving life event (2013 vs.. 2015, EU28+, %)



Figure 5-11: Integration of Key Enablers per service in the Moving life event (2015, EU28+, %)

location. Key Enablers are still hardly used for obtaining permits for moving. Together, this figure shows the availability of Key Enablers differs substantially across phases.

5.6 Overall

This paragraph provides an overall summary of the average EU28+ scores on the four top-level benchmarks for the life event *Moving*. First, the score of User Centricity is relatively high compared to the other top-level benchmarks, implying that in the majority of cases national users have the possibility to arrange their moving online. Moreover, the scores of three out of the four top-level benchmarks show that substantial improvements have been made over the past two years. User Centricity has increased by 8 percentage points, Transparency with 10 percentage points, and, finally, Cross-border Mobility by 8 percentage points. The scores for Key Enablers have remained at the same level over time. Together, these results show that noteworthy improvements have been made over the past two years, enabling users to arrange the steps of their moving journey online. Some countries have particularly made big steps in the past years, indicating that a lot of progress can be achieved within a limited amount of time.



Figure 5-12: Four top level benchmarks for Moving; (2013 vs.. 2015 EU28+, %)

Owning and driving a car

"Meeting the needs of consumers and needs of businesses will help Europe to stay ahead of the curve, and remain competitive globally."

Commissioner Violeta Bulc (Transport)

Speech to the European Parliament on her vision for investment in Transport (23 May 2016)

Owning and driving a car

6

In this chapter all relevant indicators will be discussed for the life event Owning and driving a car. Firstly, the life event will be introduced shortly, after which User Centricity, Transparency, Cross-border mobility and Key Enablers are discussed.

6.1 Introduction to life event

The number of registered passenger cars in Europe has continuously risen in the last decade. The highest growth over this period was recorded in Slovakia and Poland (both 18%), followed by Bulgaria (16%) and Estonia (15%)²⁸. In 2012, 12.1 million passenger cars were newly registered in the EU28+. A total of 242.2 million passenger cars were driving in Europe, counting up to 483 passenger cars per 1000 European citizens²⁹.

This means that, on a regular basis, almost half of the European citizens probably have to deal with the administrative procedures related to owning and driving a car, such as paying road and vehicle tax, obtaining parking permits and periodic motor vehicle tests. Through smooth eGovernment services, these re-occurring activities can be made less burdensome for citizens.

For citizens that move from one country to another, the registration of a car can be especially burdensome. Each year, some 3.5 million vehicles are moved to another Member State and need to be re-registered. A public consultation initiated by the European Commission in 2011 showed that more than 78 per cent of the citizen respondents experienced long procedures and extra costs when trying to move the registration of their cars from one Member State to another. For that reason, in 2014 the European Commission planned to get car registration offices to directly exchange technical information so citizens and companies do not have to go through bureaucratic procedures for re-registration. In this way, citizen mobility and cross-border trade is stimulated. The Commission has also proposed to take measures to make the re-registration of cars that were stolen impossible, which would prevent citizens from buying stolen cars and might make it less rewarding for criminals to steal cars. Both plans, however, still have to pass the Council of the European Union³⁰.

A better car registration would not only decrease the administrative burden for citizens and governments, but would also reduce tax evasion and in turn increase governments' tax revenues³¹. In 2015, fourteen of the EU Member States generated 396 billion Euros from taxation of motor vehicles³². However, governments miss an estimated 10 per cent of tax revenue because of VAT fraud³³ when products, such as cars, are imported. Governments can thus gain considerably from fighting tax evasion.

The growing number of vehicles also means more CO₂ emission.³⁴ Cars are responsible for around 12 per cent of total EU CO₂ emissions . To reduce the CO₂ emission from vehicles, the EU sets emission limits for car manufacturers and requires countries to ensure that relevant information, such as

²⁸ http://ec.europa.eu/eurostat/statistics-explained/index.php/Passenger_cars_in_the_EU

²⁹ http://www.acea.be/statistics/tag/category/key-figures

³⁰ http://ec.europa.eu/growth/sectors/automotive/motor-vehicle-registration/index_en.htm

³¹ http://www.europarl.europa.eu/news/en/news-room/content/20130521IPR08701/html/MEPs-call-for-EU-wide-action-to-collect-tax-lost-to-fraud-and-evasion

³² http://www.acea.be/statistics/article/fiscal-income-from-motor-vehicles

³³ http://ec.europa.eu/taxation_customs/taxation/vat/control_anti-fraud/index_en.htm

³⁴ http://ec.europa.eu/clima/policies/transport/vehicles/cars/index_en.htm

a car's fuel efficiency and CO₂ emissions, is provided to consumers³⁵. By making this kind of information easily accessible online, citizens can take into account the effects on the environment when buying a new car. Finally, governments can reduce emissions and fuel consumptions by setting speed limits³⁶. In order for citizens to keep to these limits they often take additional measures, such as driving fines.

The 2015 eGovernment Benchmark measures the maturity of a set of electronic government services, citizens might need to obtain when *Owning and driving a car*. These services range from registering a car to paying driving fines.

The next paragraphs present the results of the 2015 eGovernment Benchmark assessment of services within the *Owning and driving a car* life event in European countries. As for all life events, the results address four different sides of eGovernment services, all equally important to facilitate citizen mobility: User Centricity, Transparency, Citizen Mobility and Key Enablers.

Key findings

- Online Availability and Usability have improved steadily, while Ease of Use and Speed of Use are staying behind.
- For Owning and driving a Car, 52 per cent of the services only consist of providing online information. When looking at the percentage of services provided automatically or online, Owning and driving a Car scores the lowest percentage of all four life events: 37 per cent.
- Owning and driving (47%) a car and Starting a small claims procedure (45%) both score relatively low when compared to the averages for the Transparency indicators Regular Business Operations (66%) and Moving (60%).
- Compared to the life events of Regular Business Operations and Moving, the life

event of Owning and driving a car underperforms. However, it is not the worst scoring life event and progress has been made in the past two years: especially Cross-border Mobility has made a relatively large leap of 13 percentage points.

- On average, cross-border scores are still 26 percent points lower than scores for national users. This means extra barriers for the European Digital Single Market.
- On average, the scores for Key Enablers have increased by 8 percent points since 2013. Electronic means of authentication (eID) and Single Sign On (SSO) attain the highest scores in this life event, scoring 57 and 62 per cent respectively.

6.2 User Centricity

Figure 6-1 shows the average score of the EU28+ for each of the four components of User Centricity of the government services related to the Owning and driving a Car life event. The Online Availability and Usability of services have relatively improved most with respectively 6 and 7 percentage points. This means that for the majority of the services in this life event at least some information is available online and that citizens are well guided in using government services in this life event through, for example, demos, FAQs and clear contact details. This is the case for the majority of countries. In fact, regarding Online Availability, the only country scoring below 60 per cent is Romania (58%). For Usability on the other hand, there are more: Belgium, Switzerland, Hungary, Montenegro, Romania and Slovakia all score 57 per cent, while the United Kingdom scores 43.

As is the case with all other life events, the Ease of Use and Speed of Use scores more or less remained at the same low level as in 2013. This suggests that also for this life event more attention could be paid towards the user experience of services, rather than merely making services available or more complete.

³⁵ http://ec.europa.eu/clima/policies/transport/vehicles/index_en.htm

³⁶ http://www.eea.europa.eu/themes/transport/speed-limits



Figure 6-1: Four components of User Centricity for Owning and driving a car: Online Availability, Usability, Ease of Use and Speed of Use (2013 vs.: 2015, EU28+, %)



Figure 6-2: Correlation Online Availability versus Usability + Ease of Use + Speed of Use by country for Owning and driving a car (2015, %)

When looking to figure 6-2 it becomes apparent that the focus on quantity (Online Availability) over quality (Usability + Ease of Use + Speed of Use) is a phenomenon that occurs throughout all the EU28+. Poland is

the only exception, but this is mostly due to a relatively low score for Online Availability (67%) as compared to Usability + Ease of Use + Speed of Use (71%). Three countries have achieved the highest possible score of 100 per cent, which means an increase of two countries with that score, in comparison to 2013. The countries with the 100 per cent score are Estonia, Malta and Austria. These countries also achieved high scores with regard to the life event Regular Business Operations.

Analysing figure 6-3, it becomes clear that although some countries show a small setback (Sweden, Turkey, Ireland, Iceland, Portugal, France), on average, scores have increased 9 per cent throughout Europe. Over half of the countries show double digit growth, ranging from 10 to 85 per cent (Slovakia). Hungary even managed to triple its score by going from a score of 17 to 45 (165% growth). Although there is still a long way to services being fully available, the scores presented look promising for Owning and driving a car.

Looking at figure 6-4 the first thing that becomes apparent is the relatively high percentage of services that are provided offline, as compared to the life events Regular Business Operations and Moving:



Figure 6-3: Online Availability in 2013 and 2015 for Owning and driving a car per country (%)



Figure 6-4: How services are made available for the Owning and driving a car life event (2015, EU28+, %)

6

121 out of 1202 evaluated services are provided completely offline, which means that on average, for 10% of the services people have to go to a physical location in order to arrange the responsibilities they have regarding their car. For Regular Business Operations this is 1%, and for Moving this is 6%. Only Starting a small claims procedure scores worse: 16% of all services are provided offline in that life event.

What is also interesting is that the services in this life event are often limited to providing information, while the real added value of eGovernment lies in providing the actual service online. For this life event, in 52 per cent of the cases, the service only consists of providing online information. When looking at the percentage of services provided automatically or online, Owning and driving a Car scores the lowest percentage of all four life events: 37 per cent (as compared to 79,6% for Regular Business Operations, 65,2% for Moving, and 57,6% for Starting a small claims procedure).

6.3 Transparent Government

Figure 6-5 shows the EU28+ scores on Transparency of Service Delivery, Personal Data and Public Organisations. The EU28+ barely show any progress since 2013. Public organisations and Personal Data only went up 7 and 6 percentage points respectively. Service Delivery actually went down 1 percentage point, making it the lowest scoring indicator for Transparent Government of all life events (30%). Regarding the process of service delivery, this indicates that governments are not as transparent as they should be.

Owning and driving (47%) a car and Starting a small claims procedure (45%) both score relatively low when comparing the averages for the Transparency indicators with Regular Business Operations (66%) and Moving (60%).

To see where these low averages come from, in figure 6-6 the scores are presented per country.

In the first place it seems that Malta (100%) is the only country that properly addresses Service Delivery regarding transparency. The first country that follows is Austria, with a much lower score: 68 per cent. For many countries it seems that transparency in Service Delivery has a lower priority than for the other two areas. In some countries the transparency on Service Delivery is even near to absent. In some countries this appears to be consistent for all life events, in other countries however, scores appear to be



Figure 6-5: Three components of Transparency for Owning and driving a car: Service delivery, Public organisations and Personal data (2015, EU28+, %)



Figure 6-6: Three components of Transparency for Owning and driving a car: Service delivery, Public organisations and Personal data per country (2015, %)



Figure 6-7: Cross Border Mobility; Online Availability, Usability, Ease of Use and Speed of Use for Owning and driving a car (2013 vs.. 2015, EU28+, %)

life event-specific. Germany for example, scored 95 per cent for Service Delivery in Regular Business Operations, 74 per cent in Moving, 76 per cent in Starting a small claims procedure, but only 6 per cent in Owning and driving a car. It appears that countries in general do not pursue a consistent approach across domains on this indicator.

6.4 Cross Border Mobility

Being one of the key pillars of EU Single Market policy, cross-border mobility is an aspect that requires special attention in the eGovernment benchmark. With regard to Owning and driving a car, this means that the procedure of registering a car in another European country should be short and easy.

From the positive side, online services do exist in some numbers for cross-border users, albeit only since two years: Online Availability gained 20 percentage points, bringing it to a total of 48 per cent. The other indicators performed much worse: Usability increased only 1 percentage point, and the Ease of Use and Speed of Use even declined 2 and 3 percentage points respectively. Regarding the user experience this life event is the only one showing a decline, which leads to the conclusion that there is still much room for improvement.

When comparing the absolute scores from figure 6-8 with national scores for Online Availability and Usability, like in other life events, cross-border users are on the losing end. As shown in figure 6-8, Online Availability is 14 percentage points lower for cross-border users than for national users, and this trend also is visible for all other indicators: on average, cross-border scores are 18 per cent lower than scores for national users. This means extra barriers for the European Digital Single Market that is strived for.

Figure 6-9 examines Cross-border Mobility for Owning and driving a car per country. Scores in this graph are for the Digital Single Market top-level benchmark, i.e. the weighted average of the four subindicators.

Although the EU28+ average is still low as compared to the life events of Regular Business Operations and Moving, on average, the EU28+ shows a promising increase of 13 percentage points. A number of countries show impressive progress since the last measurement: the Nether-

Indicator:	National users (score 2015)	Cross-border users (score 2015)	Difference (in percentage points)
Online Availability	74	60	-14
Usability	82	66	-16
Ease of Use	56	48	-8
Speed of Use	54	43	-10

Figure 6-8: Cross-border users vs. National users; Online Availability, Usability, Ease of Use and Speed of Use for General administration: Moving (2013 vs. 2015, EU28+, %)



Figure 6-9: Cross Border Mobility for Owning and driving a car per country (2013 vs. 2015, %)
lands, Switzerland, Sweden, Belgium, Portugal, Norway, Denmark, Bulgaria, Austria, Luxembourg, Germany, United Kingdom and Czech Republic all show double or even triple digit growth numbers, indicating that policy measures taken have the desired effect. However, for the majority of countries still more efforts should be made towards Cross-border Mobility. Even some countries that have improved since 2013, will need to continue their progress to achieve the 51 per cent figure that is considered to be 'fair' (the Netherlands, Denmark, Switzerland and Bulgaria).

6.5 Key Enablers

To facilitate the process of Owning and driving a car, public organisations can use Key Enablers. These Key Enablers not only reduce the steps that need to be taken, but also the amount of information that needs to be provided by the citizen. For instance, by using pre-filled forms, the system automatically fills in the current address of the citizen. Moreover, the use of electronic identification will fasten the validation of the provided personal data. Figure 6-10 shows the average EU28+ scores for the main Key Enablers. On average, the scores for Key Enablers have increased by 15 per cent since 2013. Electronic means of authentication (eID) and Single Sign On (SSO) attain the highest scores in this life event, scoring 57 and 62 per cent respectively. However, the score for eID has actually dropped 2 percentage points. The scores for Authentic Sources and eSafe have increased by 10 and 8 percentage points respectively. The score for formally recognised electronic documents (eDocuments), however, has increased by only 1 percentage point.

Due to the high number of interactions with the government, Owning and driving a car is a life event that could highly benefits from Key Enablers. This can also been seen in figure 6-11, where the use of Key Enablers is shown per phase for this life event. As can be seen, the use of Key Enablers could play an important role in most phases. Especially reporting a stolen car is a process step that could benefit significantly from more use of Key Enablers.

6.6 Overall

To provide an overall summary for this life event, figure 4-12 shows the scores of all four top-level benchmarks: User Centricity, Transparency, Cross-border Mobility and Key Enablers.



Figure 6-10: Availability of Key Enablers within the Owning and driving a car life event (2013 vs2015, EU28+, %)



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Figure 6-11: Integration of Key Enablers per service in the Owning and driving a car life event (2015, EU28+, %)



Figure 6-12: Four top level benchmarks Owning and driving a car (EU28+, %)

Compared to the life events of Regular Business Operations and Moving, the life event of Owning and driving a car underperforms. However, it is not the worst scoring life event and progress has been made in the past two years: especially Cross-border Mobility has made a relatively large leap of 13 percentage points. With an average of 54 per cent this life event is situated in the 'fair' range (51-75%). Considering the fact that it previously scored 46 per cent on average, Owning and driving a car is developing in a positive way. However, because variance between countries remains high, this does not mean that Europeans find themselves fairly served in most European countries for this life event. This because the positive scores of some countries compensate for the low scores of others.

Starting a small claims procedure

"The digitalisation of justice means easier access to justice for citizens, businesses and legal professionals. Our goal should be seamless communication between citizens, practitioners and courts everywhere in the EU."

> Commissioner Véra Jourová (Justice, Consumers and Gender Equality Speech at the JHA council (15 January 2015)

Starting a small claims procedure

In this chapter all relevant indicators will be discussed for the life event Starting a small claims procedure. Firstly, the life event will be introduced shortly, after which User Centricity, Transparency, Cross-border mobility and Key Enablers are discussed.

7.1 Introduction to the life event

An effective small claims procedure, whether on the national or European level, is key to improve citizens' access to justice and for citizens to make better use of their rights as consumers. One of the policy goals of the European Commission therefore is to simplify and speed up small claims procedures by improving the communication between judicial authorities and by making smart use of ICT. The eventual goal is to reduce administrative burden for all user groups: courts, judicial actors and end users.

With this aim, the European Small Claims Procedure for cross-border claims under 2000 Euros has been applied since 2009.³⁷ According to research done by the European Commission, the procedure has already reduced the cost of litigating cross-border small claims up to 40%. Moreover, the duration of litigation has gone down from 2 years and 5 months to an average duration of 5 months³⁸. However, the optimal gain of this procedure has not yet been reached. According to a Eurobarometer survey³⁹, three quarters of the respondents have never heard of the small claims procedure in their country and even less (12%) have heard of the *European* (cross-border) small claims procedure. This indicates governments, including judicial authorities, do not sufficiently provide information on when and how to start a small claims procedure.

Nonetheless, 3 per cent of the respondents have actually used the national procedure and 1 per cent have used the European procedure. Most survey respondents indicated that in order to stimulate them to use the small claims procedure (national and cross-border); they should be able to carry out the proceedings remotely, in writing, and online. This is likely to become easier with the introduction of the European e-Justice Portal⁴⁰. More and more online procedures via the interconnection of countries judicial authorities are intended. Indeed, the European Commission has proposed to improve the European Small claims procedure by using standard online forms, enabling the launch of the procedure online, making e-mail a legally valid means of communicating and paying court fees electronically⁴¹.

The 2015 eGovernment benchmark assesses the maturity of the electronic services for small claims procedures both on the national and cross-border level. In this way, it aims to stimulate governments to provide citizens effective online access to justice in a user friendly, quick and cost efficient way. In turn, citizens should feel more confident and empowered as consumers in the single market.

³⁷ Denmark has an opt-out to the treaty regarding the judicial co-operation on the European Small Claims procedure. In Denmark 'small case' procedures are provided by domain specific complaints boards for demands up to 50.000 DKK, as opposed to judicial courts. Results for this life event thus might deviate from other countries.

³⁸ http://europa.eu/rapid/press-release_IP-13-1095_en.htm

³⁹ http://ec.europa.eu/public_opinion/archives/ebs/ebs_395_sum_en.pdf

⁴⁰ https://e-justice.europa.eu/home.do?action=home&plang=en

⁴¹ http://ec.europa.eu/justice/civil/commercial/eu-procedures/small_claims/

Key findings

- Online Availability has increased 12 percentage points to a total of 71 per cent, the other three indicators of User Centricity (Usability, Ease of Use, and Speed of Use) have only increased slightly.
- For Online Availability, the variance between countries is large, and the same holds for all three Transparency sub-indicators.
- As regards Transparency, Starting a small claims procedure is the worst scoring life event evaluated in 2015. However, it does show the highest growth rates of the four life events which are measured this year.
- On average, Cross-border scores have increased 7,8 percentage points for *Starting a small claims procedure*, which is a positive trend. However, scores are still relatively low as compared to other life events evaluated in 2015.
- Furthermore, as is the case in other life events, the differences between national and cross-border scores for the same indicators are too big, which means extra barriers for the European (Digital) Single Market.

All four top-level indicators combined lead to an average score of 47 per cent, which means a score in the 'moderate' zone (25-50%). There still is room for improvement in the years to come, but considering the average score of 37 per cent from which it came, European countries have made good progress in facilitating their citizens in *Starting a small claims procedure.*

7.2 User Centricity

Figure 7-1 shows the average score for each of the four components of the toplevel benchmark User Centricity related to the life event Starting a small claims procedure. Online Availability, which measures the extent to which information is provided about government services online, and the extent to which actual services are available online, has increased 12 percentage points to a total of 71 per cent. Although a score of 71 per cent is considered to be 'fair', compared to the other three life events evaluated in 2015, this score is the lowest of all four. Progress has been made for the other three subindicators as well. However, this progress



Figure 7-1: Four components of User Centricity for Starting a small claims procedure: Online Availability, Usability, Ease of Use and Speed of Use (2013 vs.. 2015, EU28+, %)







is relatively low: Usability, Ease of Use and Speed of Use show an increase of 3, 1, and 2 percentage points respectively, bringing their total scores to 74, 48 and 46 respectively. This means that the user experience still requires more attention.

As is the case for all life events, the scores for Speed of Use and Ease of Use have remained more or less constant over time. This trend is also visible in figure 7-2, which shows that the majority of countries has more attention towards Online Availability, and less towards variables concerning the user experience (such as Usability, Ease of Use and Speed of Use). The only countries that score higher for user experience-related variables than for Online Availability, pertain to the upper side of the 45-degree line because of their relatively low scores for Online Availability (Hungary, Serbia, Croatia, United Kingdom and Spain).

Focussing on the quantity of information and services provided, figure 7-3 shows the 2013 and 2015 Online Availability scores by country. Although Starting a small claims procedure is the worst scoring life event for Online Availability in absolute terms, it still has a fair average score of 71 per cent. Moreover, together with the life event Moving, Starting a small claims procedure showed the biggest increase in Online Availability between 2013 and 2015: an 11 percentage points increase for the EU28+.

On the positive side, Lithuania's score has gone up from 39 to 100 per cent, bringing the total of 100 per cent scoring countries to five (Austria, Estonia, Malta, and Portugal, Lithuania). Two of these countries even score 100 per cent on Online Availability for all life events: Austria and Malta (Estonia almost reached this level as well, with a score of 98% for Moving).

Other countries that show clear progress are Norway, Italy, Sweden, the Netherlands, France, Luxembourg, Germany, Denmark, Czech Republic, Slovenia, Slovakia, and Cyprus. In 2015 Montenegro participated for the first time with a



Figure 7-3: Online Availability in 2013 and 2015 for Starting a small claims procedure per country (%)



Figure 7-4: How services are made available for the Starting a small claims procedure life event (2015, EU28+, %)

promising base line score of 58 per cent, which is just below the EU average of two years ago.

Not only are there differences across different countries, but also across the different steps in the life event Starting a small claims procedure. Figure 7-4 shows for each of the steps to which extent the activity is fully automated, online available or only available in an offline context. There are large differences across the different steps. For example, an appeal against a court decision is done mostly offline, and in only 10 per cent of the countries this service can be obtained online. Another interesting note is that not one single service step is automated for this life event. This could have something to do with the nature of the life event steps. An 'Appeal against a court decision' (step 1.7) always has to be initiated by the user and can therefore not be automated. However, other steps such as 'Obtaining information on case handling' (step 1.5) and 'Retrieve judgement' (step 1.6), could be automated to a high extent while they are not.





Another interesting part of a Small claims procedure is what happens after it has been started: lawyers, judges en courts have to communicate in the remainder of the process, until a verdict is reached and the involved citizens are informed of the outcome. The level of digitisation has a positive influence on the speed of communication and thus on the length of the entire process.

Although this part of the process lies beyond the reach of this evaluation, yearly studies are performed by the European Commission for the Efficiency Of Justice (CEPEJ). The results of the latest report⁴² (2016, fig. 23 p. 21), show that, in general, countries that score high on online availability in the eGovernment Benchmark, also show high scores for the availability of electronic communication. This suggests that for these countries, digitisation has been on the agenda for multiple parts of the procedure.

7.3 Transparent Government

With an average score for Transparency of 45 per cent, in an absolute sense *Starting a small claims procedure* is the worst scoring

life event of the four evaluated in 2015. However, at the same time it should also be noted that Starting a small claims proce*dure* achieved the highest average relative increase of the Transparency indicators: with an average increase of 21 per cent, Starting a small claims procedure outperforms all other life events evaluated in 2015. Especially the transparency of Service delivery (32%) rose significantly with a 13 percentage point increase, followed by a 10 percentage point increase of Public organisations (58%) and a 4 percentage point increase of Personal data (44%). Although the absolute scores could be better, they are moving away from 'insufficient', to a positive direction.

Figure 7-5 shows the three components of Transparency for Starting a small claims procedure, while figure 7-6 zooms in to the country-level in order to investigate differences between countries.

Malta, Lithuania and Estonia are, on average, the leading countries with respect to the transparency of eGovernment services. For these three countries, the average of all three sub-indicators scores

⁴² Justice Scoreboard 2016. Available online here: http://ec.europa.eu/justice/effective-justice/files/justice_scoreboard_2016_en.pdf



Figure 7-6: Three components of Transparency for Starting a small claims procedure: Service delivery, Public organisations and Personal data per country (2015, %)



Figure 7-7: Cross Border Mobility; Online Availability, Usability, Ease of Use and Speed of Use for Starting a small claims procedure (2013 vs.. 2015, EU28+, %)

above 80 per cent. In the case of Lithuania, this is because of the recent development of a portal that addresses all three transparency indicators to a high extent. Malta and Estonia were already scoring high during the 2013 measurement.

Interestingly, some countries that normally perform well on Transparency (such as Portugal and Norway), show relatively low scores for the life event *Starting a small claims procedure*. This reaffirms previous findings that eGovernment policies are not always prioritised to the same extent throughout different ministries. Regarding the sub-indicators, across all countries a high level of variety can be observed. For example, the transparency of Personal data is highly valued by Iceland and France (both 100%), while their scores for Service delivery are much lower (46 and 48% respectively). Aside from the all-round high performing Malta, Lithuania and Estonia, another high-performing country with regard to Service delivery is Austria (100%).

7.4 Cross Border Mobility

A European Single Market implies, amongst other things, a free flow of goods, people and commerce. Because this inevitably leads to errors and misunderstandings at some point, the Crossborder Mobility of small claims procedures is a crucial aspect of the European Single Market.

Figure 7-7 shows the average EU28+ scores for the life event Starting a small claims procedure on the four sub-indicators of this top-level benchmark.

Figure 7-7 shows a maturity level of 43 per cent for eGovernment services for the life event Starting a small claims procedure. For the average country, only information can be found online. This is an increase of 16 percentage points since 2013, showing substantial improvement. Ease of Use is the second-best scoring indicator with 36 per cent, followed by Usability and Speed of Use that both have improved 5 percentage points, bringing the total to 34 per cent. When comparing the absolute scores from figure 7-7 to the national scores for Online Availability and Usability, like in other life events. cross-border users are worse off than national users. As shown in figure 7-8, Online Availability is 28 percentage points lower for cross-border users than for national users. Astonishingly, the Usability for cross-border users is 40 percentage points lower than for national users. The Ease of Use and Speed of Use also score lower for cross-border users, but the difference here

Indicator:	National users (score 2015)	Cross-border users (score 2015)	Difference	
Online Availability	71	43	-28	
Usability	74	34	-40	
Ease of Use	48	36	-12	
Speed of Use	48	36	-12	

Figure 7-8: Cross-border users vs. National users; Online Availability, Usability, Ease of Use and Speed of Use for General administration: Moving (2013 vs. 2015, EU28+, %)



Figure 7-9: Cross Border Mobility for Starting a small claims procedure per country (2013 vs.. 2015, %)

is smaller: 12 percentage points for both indicators. This means extra barriers for the European Digital Single Market; something that needs to be overcome.

Figure 7-9 examines the Cross-border Mobility for Starting a small claims procedure per country. Scores in this graph serve as input for the Digital Single Market top-level benchmark, i.e. the weighted average of the four sub-indicators.

The figure shows that starting a small claims procedure is easier in some foreign countries than other. Estonia, Malta and Finland have been leading the way since 2013, and in 2015 they were joined by Ireland, Latvia and Luxembourg. These countries now all have a score above the 75 per cent figure, which means that cross-border users find themselves wellserved.

Moreover, although the EU28+ average has risen from 28 to 40 per cent, Starting a small claims procedure still has the lowest overall score for this indicator, as compared to the other three life events evaluated in 2015. This is caused by the fact that there are a number of countries that virtually have no cross-border services for Starting a small claims procedure (Spain, Iceland, Slovakia, Germany, Greece, Bulgaria, Hungary, Portugal and Serbia).

It should also be noted that some countries that had low scores in 2013 made some positive changes in their policies that have their effect in the 2015 measurement (Lithuania, Turkey, Italy, Czech Republic, France and Norway, and Portugal and Romania to a lesser extent).

7.5 Key Enablers

To facilitate the process of *Starting a small claims procedure*, public organisations can use Key Enablers. Not only do these Key Enablers reduce the steps that need to be taken, but also the amount of information that needs to be provided by the citizen. For instance, by using pre-filled forms, the system automatically fills in the current address of the citizen. Moreover, the use of electronic identification will fasten the validation of the provided personal data.

Figure 7-10 shows the average EU28+ scores for the main Key Enablers. eDocuments and SSO have high scores for the life event Starting a small claims procedure, but these scores do not stand out when compared to the life events of Moving and Regular Business Operations. Furthermore, the use of eID has dropped



Figure 7-10: Availability of Key Enablers within the Starting a small claims procedure life event (2013 vs.. 2015, EU28+, %)



Figure 7-11: Integration of Key Enablers per service in the Starting a small claims procedure life event (2015, EU28+, %)

8 percentage points, which can be partially explained by the evaluation of new websites.

Moreover, although it has increased by 11 percentage points since 2013, the score on eDocuments is still somewhat disappointing. Starting a small claims procedure is a life event that could highly benefit from electronic documents instead of the usual paperwork; for example when handing in evidence to the court.

Figure 7-11 zooms in to the availability of Key Enablers for the different phases of the life event Starting a small claims procedure. As compared to other life events, the use of Key Enablers in general is relatively limited for Starting a small claims procedure. eID is the best scoring indicator, especially for the actual start of the procedure (step 1.3): it is possible to set this step online in 64 per cent of the cases. However, although citizens can start the procedure online, in 72 per cent of the cases for step 1.3, no personal information is prefilled. For other process steps this number is even lower. This could indicate that the government agencies relevant to this life event are somewhat isolated concerning eGovernment practices. By connecting administrative systems, time and costs can be saved for both governments and citizens. Finally, for receiving a judgment no Key Enablers are possible. Although this is understandable from the traditional perspective of a court, it does imply a heavy burden, especially for cross-border users.

7.6 Overall

To provide an overall summary for this life event, figure 7-12 shows the scores of all four top-level benchmarks: User Centricity, Transparency, Cross-border Mobility and Key Enablers.

The first and most important conclusion that should be drawn, is that Starting a small claims procedure is the least developed life event of all four life events evaluated in 2015. This finding holds true for the average of all indicators, but also for all four indicators individually. On the positive side it should be noted that Starting a small claims procedure is showing the highest growth rates on all four indicators, with an average of 22 per cent (as compared to 15% of the total average growth rate of all top level indicators of all four life events). This means that Starting a small claims procedure is catching up

eGovernment Benchmark 2016



Figure 7-12: Four top level benchmarks Starting a small claims procedure: User Centricity, Transparency, Cross Border Mobility and Key Enablers (EU28+, %)

When looking at the individual indicators, the progress that has been made in the past two years becomes visible: especially Cross-border Mobility has made a relatively large leap of 12 percentage points, followed by Key Enablers (10 percentage points). Transparency gained 9 percentage points, while the score for User Centricity increased by 8 percentage points. There still is room for improvement in the years to come, but considering the average scores from which it came, Starting a small claims procedure is building towards a better future.

Clustering exercise

8.1 Benchmarking is core to a continuous benchlearning and improvement cycle

What are the factors that hinder the innovation actions? How can the characteristics of a country influence eGovernment performance and, hence, an eGovernment strategy?

To understand these factors, last year's eGovernment benchmarking report has introduced a new element: the "benchlearning approach". This approach can be seen as the opportunity for a country to learn from other countries, which display similar features and better performances. To this end, the analysis builds a model which aims to:

- measure performances through indicators which, coherent with the European eGovernment Action Plan's goals, are based on the extent to which services are used online, and the extent to which public authorities are digitised and smartly re-use data;
- Explore the meaning of each performance level across different countries, investigating how similar/ different contexts perceive and answer to eGovernment implementation.

The underpinning evidence supporting this approach is the following. eGovernment's policies and strategies in each country are influenced by factors which are context specific, as:

- general context: socio-demographics, technological maturity, level of corruption, level of services centralisation;
- demand for eGovernment services: awareness of the existence of eGovernment services, likelihood to use the web, citizens' digital competences;
- offer of eGovernment services: spread, quality and investments in eGovernment services.

The new analysis framework provides an overview of how the results of this clus-

ter analysis could be used by countries to improve their eGovernment strategy and to identify the most suitable path towards eGovernment maturity.

8.2 The benchlearning exercise approach

The benchlearning exercise aims at supporting the definition of eGovernment policies and strategies that a country should implement, understanding:

- The impact of a specific context on eGovernment maturity performances;
- The context specific differences of countries with similar performances;
- The differences between countries with similar context and different performances.

In order to understand these three factors, the benchlearning exercise uses a country clustering exercise based on a two-step analysis.

The **first step** of the analysis measures a country's maturity, through the identification of the use of eGovernment services and the public administrations' ability to produce efficient and effective procedures and service delivery: the first step is to assess and compare the eGovernment with the use of performance indicators.

Then, the **second step** of the evaluates how exogenous factors shape the specific context of individual countries: the second step allows us to get a better understanding of which factor influence each country's performance.

8.2.1 Step 1: Absolute indicators

The goal of this section is to define the indicators that are used to measure the level of eGovernment maturity, in terms of use of eGovernment services and public administration's ability to produce efficient and effective procedures and service delivery.

The absolute indicators used to measure eGovernement maturity performances are **Penetration** and **Digitisation**.

The availability of online public services is growing, it is important to understand the extent to which these are actually used by their supposed users. Moreover, Information and Communication Technologies not only enhance the relationship between citizens and Government, they also make it possible to increase the efficiency of public administration processes. A sustainable eGovernment should be efficient and effective. The innovation policy objectives should not only take into account how to disseminate online services and increase citizen eGovernment usage, but also, for example, the degree of digitisation of the back-office. This is a proxy of a country's ability to manage eGovernment projects in order to improve efficiency and effectiveness through the correct use of ICT. Hence, if possible, new eGovernment performance indicators should be considered.

The framework presented last year took into consideration four indicators: Penetration, Digitisation, Satisfaction and Harmonisation. However, two updates are needed:

- The first is about satisfaction: this indicator measures the extent to which citizens are satisfied with their available eGovernment services and shows values which are almost similar in every country; furthermore, the survey has not been updated since 2012. Then this indicator is not included in this report.
- The second is about harmonization: this indicator represents the extent to which a country is capable to implement and orchestrate innovation with a coordinated approach. However this is a variable which is difficult to measure. The chosen indicator chosen is strongly correlated with digitisation.

The indicator is therefore excluded from the report.

8.2.1.1 Penetration

Market penetration can be described through assessing the extent to which online eGovernment services are widespread. The availability of digital public services around Europe has definitely risen in recent years, but in order to understand the maturity of eGovernment, supply of public services should be compared with their usage. This can be measured as a ratio between usage of services and the total population or a specific part of the population, such as internet users.

Furthermore, the use of eGovernment services can be analysed using different users clusters, in order to understand what actions should be undertaken to achieve the maximum Penetration possible and to understand the potential improvement in the availability of services.

8.2.1.2 Digitisation

The digitisation process and the ICT introduction in public administrations cannot overlook efficiency and effectiveness objectives. Therefore, eGovernment maturity is also represented by the public administrations ability to produce efficient and effective procedures and service delivery.

Efficiency can be represented by the ability to anticipate user's activities and needs, for example information that users do not have to provide because public bodies can obtain it from other sources. These variables represent back-office and front-office integration; hence they represent back office digitisation, a proxy of savings achieved through process digitisation.

8.2.1.3 Absolute indicators valorisation This phase's scope was to identify indicators able to represent eGovernment maturity coherently with the Action Plan objectives. As discussed, the absolute

Composed variables	Composed variables	Data source	
Penetration	Internet use to interact with public administration , submitting completed forms (in the last 12 months). Percentage of individuals who used the Internet within the last year. ⁴³	Eurostat	
Digitisation	Authentic Sources: personal data pre-filled, documentation required. Automated Service: percentage of automated services per country (across all life events Mystery Shopping).	eGovernment Benchmark - Mystery Shopping	

Figure 8-1: Indicators valorisation

indicators identified are Penetration and Digitisation. Figure 8-1 shows the valorisation of these indicators.

8.2.2 Step 2: Relative indicators

Consequently, a second step of the analysis is performed in order to understand how the eGovernment performance of individual countries is influenced by exogenous factors shaping the specific contexts. There are three categories of these contextual, or relative, indicators. These three categories, are:

 Government supply: The spread of eGovernment services, including investments and efforts in innovation, diffusion and quality of services;

- eGovernment demand: Citizens' willingness to use online services. This includes factors that enable citizens to use the online channel, such as eReadiness, awareness and attitude of citizens;
- Environment: Readiness of the background. Some exogenous factors that are considered are socio-demographic data, ICT Readiness and Governance structure.

All three categories consist of a number of sub-indicators. Figures III.1 in Annex III list and describe the indicators considered.



Figure 8-2: eGovernment maturity framework

⁴³ This indicator does not take in account more sophisticated services which allow for a reduction of interactions between public administration and citizens or business, for example because of automated services using interoperable databases.

8.2.2.1 eGovernment Supply

First of all, eGovernment Supply subindicators are:

- Investments: each country's performance should be compared with the realised innovation effortin order to understand which actions lead to better results. This effort is represented trough the percentage of public expenditure in ICT or the level of European Union funding spent in public administration innovation.
- Diffusion of services: heterogeneous availability of different services per country. Availability of eGovernment services can be measured with standard statistical indicators provided by Eurostat or each of the country's statistical institutes and they refer to, for example, the availability of online services, online features availability, and level of online interaction.
- Quality of services: added value provided by online services rather than offline services, which increases if the whole service procedure is offered online. To compare service offerings in different EU countries in terms of the services availability and their quality, the mystery shopping methodology can be used to measure services' usability and the integration of IT enablers in the service delivery chain.

8.2.2.2 eGovernment Demand

eGovernment Demand sub-indicators which enable citizens in using the online channels include:

- User's eReadiness: citizens' readiness is a prerequisite to use eGovernment services; this could be observed through use of other non-governmental online services, such as eCommerce, internet banking, and social networks. Finally the user's readiness to eGovernment adoption can also be analysed in terms of trust in government as a proxy of propensity of public online services demand.
- Awareness: public administrations, that offer online services, should plan

intensive communication initiatives, in order to inform citizen on the availability of services. Citizens' awareness still represents a barrier to eGovernment diffusion.

Attitude: online services should be designed in order to respond to specific users' needs. Perceived benefits of using electronic services/eGovernment channels influencethe preferences of citizens and businesses for future use. This refers to the attitude of respondents use a service again and is measured as the likelihood to use a specific channel for contact or access. The issue of future use is further elaborated by measuring indications on specific barriers to as well as potential motivators for (increased) future use.

8.2.2.3 Environment

Environmental variables need to be taken into consideration. Sub-indicators for this category include:

- Socio-demographic data: standard demographic data including gender, age, educational level, or geographical characteristics such as the number of municipalities or population density can be integrated with others variables to analyse users' needs and the propensity to use online services.
- ICT Readiness: eGovernment maturity depends on a country's readiness to deal with new ICT opportunities, represented by the availability of infrastructure and enabling technologies. In addition to standard indicators such as broadband or free Wi-Fi coverage, number of IT devices per capita, adoption of advanced technology standard (e.g. Single Sign On), furthermore the countries' efforts to improve eReadiness, for example, through the percentage of GDP invested in ICT, is investigated.
- Governance structure: there is a significant impact on eGovernment output generated by the administrative, political, and decisional structure of each country. This aspect includes the

ability to make and implement policy. The corruption index can be used as a proxy for transparency and the information asymmetry of governments.. This is also measured by the level of centralisation of service's delivery.

8.2.3 The impact of the context variables on performances

Through a multivariate regression analysis, which is a technique used to perform studies across multiple dimensions while taking into account the effects of

	Penetration		Digitisation		
	Forecast	Evidence	Forecast	Evidence	
Old Age Ratio	Х	Not relevant			
Urban Population Ratio	Х	Impact			
Educational Level	Х	Impact			
GDP per capita	Х	Small Impact			
Households Internet Access	Х	Small Impact			
Digital Skills	Х	Impact	Х	Small Impact	
Mobile Broadband EU	Х	Impact	Х	Not relevant	
Broadband EU	Х	Small Impact	Х	Small Impact	
Corruption	Х	Impact	Х	Impact	
Level of Centralisation	Х	Small Impact	Х	Small Impact	
eChannel Preference	Х	Impact	Х	Not relevant	
Lack of Trust	Х	Small Impact			
Lack of Willingness	Х	Not relevant			
Lack of Ability	Х	Not relevant			
eCommerce	Х	Small Impact			
eBanking Users	Х	Impact	Х	Not relevant	
Internet Users EU			Х	Not relevant	
Social Media EU	Х	Not relevant			
Fulfilment of expectations	Х	Not relevant			
Perceived Benefits	Х	Not relevant			
Lack of Awareness	Х	Small Impact			
Mobile Friendly	Х	Small Impact			
Clarity	Х	Not relevant	Х	Not relevant	
Usability	Х	Not relevant	Х	Not relevant	
Availability	Х	Impact	Х	Impact	
Ease of Use	Х	Not relevant	Х	Small Impact	

Figure 8-3: Drivers for Penetration and Digitisation

all variables on the responses of interest, we verified the specific impact of each of these variables on the indicators of Penetration and Digitisation in last year's report. Figure 8-3 summarizes the evidences extracted from the analysis on the relative factors. Starting from the forecasted impact of each of the variables on the indicators of Penetration and Digitisation, last year's analysis verified the actual a relationship between the relative factors and better performances in Penetration and Digitisation.

Through this analysis it has been possible to define the impact of context specific factors on the performances of different countries. The evidence supports the initial statement: performances are influenced by context specific factors, hence defining context specific paths to innovation planning and implementation should be recommended.

8.3 Country Performance

8.3.1 Methodology and data analysis

Data gathering through Mystery Shopping has been implemented for four years now. This has allowed the creation of a wide database, solid and complete enough to allow a multi-year analysis. This helps us to understand the extent to which performances have evolved throughout the years in different countries.

In 2014 eGovernment Report Penetration and Digitisation was calculated on 2014 Mystery Shopping dataset; coherent with the mystery shopping approach this year, Penetration and Digitisation indicators have been calculated as a biennial average on seven life events, in order to have three time series: 2012-2013, 2013-2014 and 2014-2015 (Figure 8-4).

8.3.2 Penetration

In figure 8-4 it is possible to see the three different slots of time which are taken into consideration across different countries. Evidence shows that while some countries display negative differences (IS, BG, SK, DK), others display a positive improvement of their performances (FI, EE, LV). This brings the average EU level of penetration to a light increase over time (+4%). These fluctuations can still be interpreted as statistical fluctuations however due to the small and rotating sample. It is also possible to see how most of countries show a weak penetration, under 50%: many efforts should then be addressed to this end.



Figure 8-4: Detail of three time series

⁴⁴ Since the methodology used to calculate Penetration and Digitisation has changed, results are not comparable with eGovernment Benchmarking Report 2014



Figure 8-5: Penetration index

8.3.3 Digitisation

Looking at the digitisation, it is possible to observe a negative trend in the EU average from 2012-2013 to 2013-2014. A positive trend is found however going towards the years 2014-2015. Countries which have better performances in this field (at least +10%) during the time period are Croatia and Iceland; Slovakia, Hungary and the Czech Republic have lost around 10% on the other hand.



Figure 8-6: Digitisation Index

8.4 Comparing peers to drive insights and provide practical advice for improvement

8.4.1 Methodology and data analysis

Using the absolute and relative indicators, a cluster analysis was conducted in order to identify clusters of countries with similar eGovernment maturity performances and clusters of countries with a similar context (Groups). Comparing these clusters increases the understanding of the context impact on performances.

Cluster analysis is a technique for exploratory statistical data analysis, which divides a set of objects into groups (clusters) that are meaningful and useful. The objects in the same cluster are more similar (using the clustering variables) to each other than to those in other clusters. Researchers should identify the variables (i.e. the clustering variables) which represent the objects' characteristics of interests; then one of several statistical algorithms is applied to divide the objects by calculating the distances among the objects in terms of the clustering variables. Statistically, the optimal number of the clusters represents the solution which provides the most distinctive clusters. Then the clusters should be profiled and the result be interpreted. An object in one cluster should have similar values and patterns in the clustering variables as other objects in the same cluster; and it should be considerably different in the clustering variables from the objects in other clusters.

In the identification of the groups of countries, in order to reduce the dependence of the dataset on relative variables and to enhance the interpretability of the data analysis results, where several variables share a mutual dimension, they are aggregated together. Such grouping of variables is further verified by a factor analysis which is a statistical method aiming at identify unobserved variables (i.e. factors) whose variations are reflected by the variations of all the single variables. Usually there is lower number of unobserved variables (i.e. factors) than the number of observed variables; thus factor analysis is often applied to reduce the data dimension and to prepare the dataset for further analysis.

If we consider then that performances can be dynamic, we can introduce the use and measurement of a time trend for absolute indicators. Relative indicators can be considered exogenous factors, as they can be modified by a single country through long term policies. This is the reason why the analysis explores the extent to which countries move across clusters. The groups remain stable over the entiretime period.

8.4.2 Clustering countries on eGovernment performances

The assessment allows us to determine the eGovernment maturity of countries and to identify different clusters of countries with a similar eGovernment maturity performance. A cluster analysis is performed to identify cluster of countries with a similar eGovernment maturity. Figure 8-7 shows the outcome of the cluster analysis on eGovernment performance measured by the two absolute indicators. The clusters are described below.

Neophytes Cluster: This cluster scores low on both penetration and digitisation, resulting in eGovernment that insufficiently exploits ICT opportunities and is dependent on significant efforts to be able to move towards eGovernment maturity.

High Potential Cluster: This cluster is characterised by a wide contrast between the level of digitisation (low) and the level of penetration (medium-high). This cluster is getting things right, but the lower level of digitisation implies that public administration processes could



Figure 8-7: Cluster of countries on performances indicators

increase in efficiency and cost savings could be realised if the necessary action were to be initiated. It also shows that despite the efforts required, citizens are confident of the eGovernment potential and the use online services.

Progressive Cluster: This cluster is characterised by a medium level of penetration and a medium level of digitisation. This means that countries in this cluster have been working on a digital approach, but there are some factors that constrain full distribution of satisfactory eGovernment services. The Progressive Cluster should focus on removing those barriers. Policies and innovation plans should specifically address and support deployment of a citizen-centric approach to further increase use of eGovernment services.

Builders Cluster: This cluster is characterised by high level of digitisation, but a medium-low level of penetration. This means that in these countries the public administration is doing well, with a structured approach to innovation. This suggests a scenario where the innovation

Group	Countries								
Group 1	Latvia	Slovenia	Luxembourg	Iceland	Cyprus	Estonia	Lithuania	Malta	
Group 2	Poland	Germany	Italy	France	United Kingdom	Spain			
Group 3	Netherlands	Belgium	Austria						
Group 4	Romania	Czech Republic	Greece	Hungary	Portugal	Bulgaria	Croatia	Slovakia	Turkey
Group 5	Sweden	Ireland	Denmark	Finland	Norway				

Figure 8-8: Group of countries with homogeneous context

process has been carried out efficiently, but online interactions with government are nonetheless not yet common practice for citizens in these countries. The lack of penetration prevents government from completely exploiting the advantages of digitisation. These countries have to understand what causes the relatively lower level of usage, in order to identify the most suitable actions to carry out. A multi-channel strategy could be an option.

Mature Cluster: This cluster has a high level of penetration and a high level of digitisation, displaying a successful process of innovation, making it possible to exploit the opportunities offered by ICT.

8.4.3 Group of countries with similar context

This assessment allows us to determine eGovernment maturity, which is affected by different variables. At the same time, undertaking an eGovernment project could have different meanings in different countries. Therefore it is important to understand the impact of the national context on performance.

In order to derive significant implications, it is important to understand the context of specific countries. Five groups of countries with a similar context are identified, based on the values of the context variables which were defined per country (eGovernment Supply, eGovernment Demand and Environment) . This is shown in Figure 8-8.

Group 1 is composed of countries with smaller populations that are relatively young, highly educated and of medium income (measured by GDP per capita); the level of centralisation of services in these countries is high.

Group 2 is composed of countries with the largest populations, and those with populations that are relatively older and have a level of education in line with the European Union average; the maturity of infrastructures and the take-up of the internet are also in line with the EU average.

Group 3 is composed of high income countries with relatively large populations that are highly skilled in ICT, and more inclined to use e-commerce and e-banking services; the ICT infrastructure is highly developed; the level of centralisation is low.

Group 4 is composed of lower income countries with populations that are less urbanised and have a relatively low level of education level and relatively few digital skills; the infrastructures are not as highly developed in this group of countries; these countries also face higher perceived levels of public sector corruption.

Group 5 is composed of high income countries with small populations that are highly educated and very much inclined to use e-commerce and banking services; the infrastructures are very well developed; the level of centralisation of services is high; these countries face low perceived levels of public sector corruption.

8.5 Comparing country clusters to understand and improve performance

8.5.1 Group performance and historical trend

In figure 8-9 the composition of different cluster over the whole period of analysis can be observed. The figure also shows the Penetration and Digitisation.

The cross-country analysis allows for a better understanding of how contextspecific variables impact the performance of countries, and in particular the relevance of the degree of penetration and digitisation.

In Figure 8-10 is represented the path of each country, through performance clusters.

		Neophytes	High Potential	Progressive	Builders	Mature	
2012-2013 CZ S		TR RO CZ SK HR BG	UK IE FR LU EL IS	SE ES LT SI IT LV AT HU PL DE CY	PT EE MT BE	DK FI NO NL	
Penetration	32%	15%	42%	27%	35%	58%	
Digitisation	30%	16%	14%	34%	52%	45%	
2013-2014	4 EU	TR RO CZ SK HR BG	UK IE FR LU EL HU IS	ES LT SI IT LV AT PL DE CY	PT EE MT BE	DK SE FI NO NL	
Penetration	34%	14%	42%	26%	36%	58%	
Digitisation	Digitisation 29% 13%		14%	33%	50%	44%	
2014-201	5 EU	RO CZ SK HR BG	UK IE FR LU EL HU	ES TR LT SI IT LV AT PL DE CY	PT MT BE	DK SE FI NO NL EE IS	
Penetration	37%	14%	41%	28%	37%	61%	
Digitisation	31%	13%	13%	34%	50%	46%	

Figure 8-9: Cluster of Country 2012-2015



Figure 8-10: Countries' path



Figure 8-11: Groups' Performances

In the analysis, groups are not dynamic: this means that over the time period considered for the analysis, the groups are formed by the same countries. On the other hand, countries display different performance paths: this brings them to move from a cluster to another. First of all, the performance trend across different groups can be observed: figure 8-11 shows how each group is characterised in the different scenarios. Hence, the result of this analysis is summarised taking the context groups as starting point, analysing the performances path of each country.

8.5.2 Group 1 trend

In **Group 1** Iceland and Estonia are the countries to learn from; in particular Iceland, which has one of the highest levels of Penetration, has been capable to improve Digitisation over the years, reaching the Mature cluster in 2014-2015. Likewise, Estonia has been capable to increase the Penetration in 2014-2015, reaching the Mature cluster and exploiting the efforts made regarding digitisation. Malta, Cyprus and Lithuania should follow the steps of Estonia, as they are very similar countries: all have similarly low scores on skills and computer literacy, e-banking use turns out to be low (in comparison to the two benchmark countries, Iceland and Estonia) and communication activities are required to make people aware that eGovernment services exist and could meet their needs. This is the path Estonia made: it increased the awareness of its eGovernment services, which were of high quality already.

Latvia and Slovenia face a higher gap in Digitisation and Penetration compared to the benchmark. It is likely that some structural factors affect these countries, such as an ageing population that lives in mostly rural areas, with low digital skills and households with limited access to the internet. On the other hand, people do seem to be interested in interacting online with the public sector, as is highlighted not only by e-channel preferences but also by the relatively good levels of e-commerce and e-banking usage. In addition, when services are available online, people seem to appreciate them (socalled high fulfilment of expectations).

However, the perceived higher level of corruption in the public sector could be a limitation for these countries in achieving performance similar to their benchmarking countries, such as Iceland and Estonia. Latvia was capable in 2014-2015 to increase the penetration, probably because of its investment in services supply (this improved the availability) and in communication of the actions undertaken (to reduce the lack of awareness).

Luxembourg shows a positive trend but still has room to increase its level of Digitisation and Penetration in comparison to its benchmark countries. A likely element influencing the lower level of Digitisation is the coordination between institutions in the country: it could be that the strategy so far has focused on putting services online and making them available for citizens, but might have been less attentive to the efficiency gains from digitising internal processes. Investing in solving these issues could not only lead to savings in the management of the public administration, but also to an increase in the quality of services for citizens. The latter is demonstrated by

results achieved by other countries that have taken similar steps. Further digitisation of internal processes, for instance through cross-agency sharing, could lead to further simplification and even automation of services.

8.5.3 Group 2 trend

In **Group 2** the benchmark country is Spain. In Spain, people are more inclined to use eChannels than in France, but a relatively low level of Penetration remains. The low level of Penetration could derive from:

- inadequate or ineffective communication: the aim should be to introduce services and to promote their reliability (reputation, to tackle lack of trust);
- lack of infrastructure and skills: which implies the necessity for increasing broadband coverage on the one hand, and the digital skills of the population on the other, through training and computer literacy.

However, Spain has been capable to implement policies which increased the overall better performance reaching a higher Digitisation score in 2014-2015.



Figure 8-12: Group 1 performance

Compared to the benchmark, contextual factors in Poland that limit better performances may be the availability of digital skills and the difficulty of coordinating the efforts of the public bodies, although these factors are not likely to jeopardise the effectiveness of an appropriate eGovernment strategy. Similar considerations are valid to Italy, but Poland has a relatively younger population, with higher educational and digital skills levels, and a lower level of corruption. In Italy, the lower level of Digitisation could be affected by:

- a lower level of digital skills in public administrations compared to, for instance, Spain;
- an inadequate capacity of institutions to coordinate innovation efforts;
- a high perceived level of corruption that is the source of a resistance to change initiatives aimed at digitising processes and thus their transparency.

eGoverment usage in Italy seems to be influenced by people's socio-demographic characteristics when compared to the benchmarks (i.e. UK and France): the population is older, and more likely to

live in rural areas, with relatively lower levels of education and digital skills. On top of that Italy faces a lack of trust in internet use for complex interactions, a high level of corruption compared to the benchmark countries, and a higher lack of awareness of e-services – despite online services being generally well available and acceptable quality standards. Therefore, it could be appropriate to implement a suitable communication strategy to promote the availability and use of digital services. The communication initiatives should overcome the fragmented nature of the institutional levels and a multi-channel strategy should make services available to that portion of population who are still not ready to interact online.

Germany performs very similar to Italy, but the reasons seem to be different. Germany is characterised by a federal system, which may be affecting the delivery of services to users. In fact, for Germany, other factors like broadband penetration and digital skills would lead us to expect higher levels of Digitisation. However, in federal countries like Germany (or



Figure 8-13: Group 2 performance

Austria), eGovernment policies have to be implemented largely through coordination mechanisms between national, regional and local public authorities rather than simply being forced top-down by national authorities. Progress is more difficult to achieve then as coordination adds another layer to the complexity of the implementation of eGovernment services. The principal factor that seems to have a negative impact on the performance in the Penetration index is a relatively older population, who might be less eager to use the internet for interactions with government. In this case, an adequate multi-channel strategy with a clear focus on increasing digital literacy and awareness could be the way forward.

Germany, Italy and Poland were not capable to improve their performances over the whole period of analysis.

France and the UK should increase their level of Digitisation in comparison with their benchmark country (Spain). The sole element that seems to influence their lower Digitisation score is weaker coordination between institutions. Investments in this coordination could lead not only to higher savings in the management of the public administration, but also to an increase in the quality of services to citizens – which is high on the agenda in both countries.

8.5.4 Group 3 trend

The Netherlands is the benchmark for Group 3. Austria seems to have started a positive path, improving its performances in Digitisation; now it should focus on those factors that limit increasing the level of Penetration , in order to complete the path and obtain a full eGovernment Maturity. In Austria there is a higher percentage of the population living in rural areas, with a slightly lower level of education and lower access to the internet from home. This could affect the use of online services such as e-banking, which are less used than in the Netherlands. On the other hand, the public administration in Austria seems to be more effective at coordinating its efforts than other countries (that have achieved better performances). To make up lost ground quickly, points that could bring Austria close to its benchmark would be



Figure 8-14: Group 3 performance

to rely on this asset and on an appropriate communication strategy to promote the usage of the existing services. Belgium resembles the Netherlands in contextual factors, but it performs better in Digitisation. For Belgium the challenge is to tackle possible usage barriers. Belgium also has a lower level of centralisation of public services and hence should compensate by continuing to focus its actions on the agreement between the federal, regional, community and local authorities to stimulate eGovernment at different institutional levels.

8.5.5 Group 4 trend

Portugal represents the benchmark for **Group 4**. From the point of view of service quality and availability of eGovernment services, Portugal is as good as other countries that score higher on Penetration; hence, the usage of eGovernment services seems to be influenced by more structural factors, such as the low level of computer skills of the population. These weaknesses imply a scarce willingness to interact online, as the low level of e-banking usage and of internet access seem to confirm. Some proposals could include raising public awareness on the use of ICT and increasing digital literacy, alongside a multi-channel strategy to exploit the potential that Portugal has. For Portugal the challenge is to reach better performances in terms of Penetration and therefore it could learn from countries belonging to High Potential and Mature clusters.

In Greece and in Hungary the problem revolves around the low level of Digitisation. Hungary's score on Digitisation decreased in 2013-2014, moving from Progressive to High Potential Cluster. In addition to the weak coordination between institutions in these countries, Digitisation initiatives must also take into account a higher level of perceived corruption. This could be a factor of resistance to the transparency induced by the automation of processes. Additionally, Greece is faced with a level of digital skills of the population that is lower than relatively comparable countries such as Hungary.

Turkey shows a positive trend, increasing both Penetration and Digitisation over years and moving from Neophytes to Progressive cluster in 2014-2015.Croatia,



Figure 8-15: Group 4 performance

Slovakia, the Czech Republic, score low on both Penetration and Digitisation. Portugal is the benchmark for these countries, since it has similar characteristics, although these Neophytes must face a higher perceived level of corruption and therefore a greater resistance to the spread of eGovernment. On the other hand, these countries can count on a higher spread of mobile broadband than Portugal and could leverage this advantage to improve their performances in Penetration more rapidly.

8.5.6 Group 5 trend

Countries in **Group 5** are located in the best environment for innovation initiatives to succeed: broadband is widespread, household internet access is high, and people are used to interacting online in different life events. This means that the population generally has high expectations of eGovernment service delivery. Hence, almost all of these countries belong to the Mature Cluster. Even though many services are offered online, people might still feel let down relative to their expectations. eGovernment policies in these countries contribute to the objective of improving efficiency and effectiveness through the digitisation of processes, while maximising the advantages for users. Having said this, there are certainly still challenges for these countries to take on. In order to increase Penetration, they could focus on further improving the online user experience, and, if use and satisfaction for certain services is high, even consider mandatory use. Improvements could also be made in back-office digitisation in order to increase efficiency in the management of public services and to build a more sustainable eGovernment.

In Ireland digital skills are lower than in comparable countries (the Nordics). This seems to be one of the major issues preventing it attaining the level of the benchmark countries. The performance with regard to Penetration in Ireland is similar to those of countries in the same cluster: however, Ireland should focus on back-office digitisation, which may support positive achievements linked to ICT use in public services delivery processes.



Figure 8-16: Group 5 performance

8.6 Improving the framework: considerations for future applications

The benchlearning represents an analysis approach, proposing an innovative point of view, which can be useful in order to understand the meaning of a country's performance gap and to suggest a possible way of overcoming this gap. Through this approach, each country can compare itself and try to learn from countries, with similar contexts, but with better performance. This could help them to understand which level of maturity could be targeted as the next step, and support the development of relevant and feasible eGovernment objectives and related actions for getting there.

This does not mean, however, that there are no commonalities, and that it would be impossible to have a joined-up European strategy. Europe as a platform offers countries the opportunity to share and learn, and tackle shared issues together. There is also some logic to eGovernment development – and it is clear at least that there are two major phenomena that everyone must confront: a shared digital infrastructure and highly user-friendly services.

Future analyses can evolve to increase the validity and the relevance of the implications, and to improve the type, the quality and the quantity of data collected for the analysis.

In the analysis presented, Penetration is represented by Eurostat data percentage of individuals who used the Internet within the last year, which use internet to interact with public administration, submitting completed forms; actually it could be worth to explore alternative versions to measure eGovernment services penetration.

Currently Eurostat is working on this indicator, in order to calculated two alternatives:

- percentage of individuals needing to submit forms, which submit forms online;
- percentage of internet users needing to submit forms, which submit forms online.

These indicators could be introduced in future benchlearning exercises.

Moreover the other indicators used to qualify the eGovernment maturity of a country could be revised in order to take into consideration more aspects: "Penetration" now looks at the interaction with public administration through internet, but other innovative channels such as public access points, retail stores or banks if this fits within an eGovernment multi-channel strategy.

Authentic Sources and Automated Service Variables, as proxies of public administration's efficiency and effectiveness in internal procedure and services supply, compose the Digitisation index. To understand how a public administration is managing the digitisation of its processes, it would be more appropriate to collect specific data. It would also be useful to build efficiency and effectiveness indicators, through a survey to public entities.

Besides, the relative variables used in the second step of the analysis can be extended as well, including historical data, in order to strengthen and to increase the accuracy of construction of the groups. This is possible in the next years, when historical series are available.

Furthermore, future analysis could introduce new indicators, such as Harmonisation and Simplification.

- Harmonisation represent a country's ability to manage a coordinate innovation action;
- Simplification represent a country's ability to drive innovation in order to reduce citizen's burden, eliminating or automatizing public services.

In order to introduce those indicators, a new methodology of data collection is needed, introducing e.g. a survey addressed to each public administration.

Finally, present and future analysis should also consider the actual capacity of governments to respond to social change, as eGovernment belongs to this process. The circumstances that permitted the welfare state expansion in the post war (growth, full employment, national autonomy) progressively reversed in a challenging scenario. Historical evidence hardly suggests that the response of welfare states to these challenges is shrinking entitlements. But it is to be reckoned that this condition of permanent austerity influences the extent to which governments are likely to expand and reinforce services delivered to citizens, and contributes to orient governments' responses to specific social needs.

Annex I: Country Reports

Released separately on European Commission website.

Annex II: Explanation of indicators in common language

User Centricity

The top-level benchmark *User Centricity* indicates to what extent (information about) a service is provided online and how this is perceived.

It consists in 4 indicators. Two indicators look into what is provided for online by governments:

1. Online Availability: indicates if a service is online. Ranging from offline (0%), only information online (50%), fully online (100%).

Measures the extent to which citizens and businesses can finalise a process step/ obtain a service within a life event online. A 100% score for Online Availability means the service can be obtained online *from start to finish* and can be accessed through the website of the responsible authority and through a central government portal. If not through portal, the service scores 75%. A 50% score on Online availability means that although *information* can be found online on both the website of the responsible authority and through a central government portal (if not through portal: 25%), the citizen or business still needs to use paper or physically visit the authority to actually obtain the service.

2. Usability: indicates if support, help and (interactive) feedback functionalities are online.

Measures the extent to which the central government portals *facilitate* the citizen or business in obtaining the service. By facilitation, we mean the citizen or business is able to identify and contact the responsible authority, to receive support (e.g. through FAQs, demos, chat functionality, social media) and to provide feedback online. The indicator consists of 7 parameters, the score indicates how many of these are online.

Two indicators assess how these functionalities are perceived:

3. Ease of Use: quality assessment researchers indicating how intuitive and smooth the process steps can be completed.

It assesses the extent to which the citizen or business is able to find his way through the process steps in a life event *smoothly*. The mystery shoppers therefore evaluate the complete life event (beginning to end) on a scale of 1-10, addressing the extent to which he has reached his *goal*, he was able to *understand* what he was supposed to do to obtain the service, he found the succession of process steps *logical* and he was *actively engaged* to improve the service.

4. Speed of Use: quality assessment researchers indicating if the process steps could be completed within reasonable amount of time.

Assesses the extent to which the citizen or business is able to complete the required
process steps in a life event within *a reasonable amount of time*. The mystery shopper therefore evaluate the complete life event (beginning to end) on a scale of 1-10, addressing the extent to which he could quickly *submit his information* to the authority (or information was pre-filled), the time he needed to obtain the service and the extent to which the services were *structured efficiently*.

Indicators 2, 3 and 4 are aggregated into one synthetic indicator called **Online Usability**. Together with the indicator for **Online Availability**, the **User Centricity benchmark** is composed.

Transparency

The top-level benchmark **Transparency indicates to what extent governments are transparent as regards a) their own responsibilities and performance, b) the process of service delivery and c) personal data involved.**

The Transparency benchmark is composed of three indicators:

- Transparency of Public Organisations: indicates to what extent governments are transparent as regards their own responsibilities and performance. Measures the transparency of government organisations which are *end responsible* for the policies, regulations and services in a life event, but are not necessarily the service provider. Mystery Shoppers assess the extent to which the organisations provide information on their responsibilities, the organisational structure, regulation and policy making processes and monitoring methods and results.
- 2. Transparency of Service Delivery: indicates to what extent governments are transparent as regards the process of service delivery.

Measures the transparency of the life event's service providers with regards to the *service delivery process*, i.e. the length of the process, the progress made, the delivery timelines and the service performance.

3. Transparency of Personal data: indicates to what extent governments are transparent as regards personal data involved.

Measures the transparency of the central government portals with regards to how governments *store Personal data*, and the level of access of citizens and business to their personal data and possibilities to modify data and notify or complain to the government on the quality or the use of their personal data.

Single market mobility

The top-level benchmark **Single Market mobility indicates to what extent EU** citizens can use online services in another country. It measures the availability and usability of cross-border eGovernment services, i.e. if services in country A can be used by someone from country B. For this benchmark, the same indicators as for User Centricity are used:

1. Online availability: indicates if a service is online. Ranging from offline (0%), only information online (50%), fully online (100%).

Measures the extent to which citizens and businesses can finalise a process step/ obtain a service within a life event online from abroad. A 100% score on Online availability means the service can be obtained online *from start to finish* and can be accessed through the website of the responsible authority. A 50% score on Online availability means that although *information* can be found online, the citizen or business still needs to use paper or physically visit the authority to actually obtain the service.

2. Usability: indicates if support, help and (interactive) feedback functionalities are online.

Measures the extent to which the central government portals *facilitate* the foreign citizen or business in obtaining the service. By facilitation, we mean the citizen or business is able to identify and contact the responsible authority, to receive support (e.g. through FAQs, demos, chat functionality, social media) and to provide feedback online.

3. Ease of Use: quality assessment researchers indicating how intuitive and smooth the process steps can be completed.

Assesses the extent to which the foreign citizen or business is able to walk through the process steps in a life event *smoothly*. The mystery shopper therefore scores all services within one life event on a scale of 1-10, addressing the extent to which he has reached his *goal*, he was able to *understand* what he was supposed to do to obtain the service, he found the succession of process steps *logical* and he was *actively engaged* to improve the service.

4. Speed of Use: quality assessment researchers indicating if the process steps could be completed within reasonable amount of time.

Assesses the extent to which the foreign citizen or business is able to complete the required process steps in a life event within a *reasonable amount of time*. The mystery shopper therefore scores all services within one life event on a scale of 1-10, addressing the extent to which he could quickly *submit his information* to the authority (or information was pre-filled), the time he needed to obtain the service and the extent to which the services were *structured efficiently*.

Indicator 2, 3 and 4 are aggregated into one synthetic indicator called cross border index for **Online Usability**. Together with the cross border index for **Online Availability**, the **benchmark** of Single Market Mobility is composed.

Key Enablers

The top-level benchmark *Key enablers indicates the extent to which 5 technical pre-conditions are available online*. It measures the extent to which governments have the technical pre-conditions in place to realise efficient and effective online services. The Mystery Shoppers assess the availability of five Key enablers in each of the life events:

- Electronic Identification (eID): the Mystery Shoppers indicate for each life event service whether there is a need for authentication and if yes, if the citizen or business is able to *authenticate online* through a national eID (usable for multiple services provided by multiple government authorities) or through a specific identifier (usable for only one service or only one government authority).
- Electronic documents (eDocuments): the Mystery Shoppers indicate for each life event service whether there is a need for *sending or receiving a document* and whether this can be done directly online (not through e-mail) in a secure way (i.e. the digital documents are authenticated).
- 3. **Authentic Sources:** the Mystery Shoppers indicate for each life event service whether he should provide personal information (e.g. through a form) and whether

this *information is automatically pre-filled* by the service provider (based on data from Authentic Sources such as National register, Tax registers, Company registers etc.)

- 4. **Electronic Safe (eSafe):** the Mystery Shoppers indicate per central government portal if an eSafe solution is available for *secure storage and retrieval of eDocuments*.
- 5. **Single Sign On (SSO):** the Mystery Shoppers indicate per central government portal if by logging in once he can *gain access to other participating systems* (i.e. multiple eGovernment services/websites) without being prompted to log in again.

Annex III: Relative indicators

Source	Туре	Үеаг	Description	Indicator	Data of extraction
IDC	Investments	2011	Take-up e-Procurement in % on total public procurement	eProcurement Take-UP	March 2015
IDC	Investments	Aver- age	2011-2014 IT spending on GDP average	Average IT Spending	March 2015
Mystery Shopping	Diffusion of services	2014	Availability	Availability	March 2015
Mystery Shopping	Quality of services	2014	Mobile friendliness of PA websites	Mobile Friendly	March 2015
Mystery Shopping	Quality of services	2014	Transparency	Clarity	March 2015
Mystery Shopping	Quality of services	2014	Usability	Usability	March 2015
Mystery Shopping	Quality of services	2014	Speed	Speed	March 2015
Mystery Shopping	Quality of services	2014	Ease of Use	Ease of Use	March 2015

Figure III.1 Supply variables

Figure III.2: Demand Variables

Source	Туре	Үеаг	Description	Indicator	Data of extraction
Eurostat	User's eReadiness	2014	Internet purchases by individuals. Last online purchase: between 3 and 12 months ago	eCommerce	June 2015
Eurostat	User's eReadiness	2014	Internet banking (% of individuals)	eBanking Users	March 2015
Eurostat	User's eReadiness	2014	Last Internet use: in last 3 month (% of individuals)	Internet Users EU	March 2015
Eurostat	User's eReadiness	2014	eBanking_Users/Internet_ UsersEU	eBanking diffusion in internet Users	March 2015
Eurostat	User's eReadiness	2014	Individuals using the Internet for participating in social networks - % of individuals aged 16 to 74	Social Media diffusion	March 2015
User Survey 2012	Awareness	2012	% Lack of awareness / non- users: I was not aware of the existence of relevant websites or online services	Lack of Awareness	March 2015
User Survey 2012	Attitude	2012	% Lack of trust to use / non- users: I did not use the Internet because of concerns about protection and security of personal data	Lack of Trust	March 2015
User Survey 2011	Attitude	2011	% eChannel preference (as a share of total group of users & non users of eChannels across life events)	eChannel preference	March 2015

Source	Туре	Үеаг	Description	Indicator	Data of extraction
User Survey 2012	Attitude	2012	% Lack of willingness to use / non-users: I preferred to have personal contact to get what I wanted/needed; I expected to have things done more easily by using other channels; The relevant services will require personal visits or paper submission anyway; I did not expect to save time by using the Internet to get what I wanted/needed	Lack of Willingness	March 2015
User Survey	Attitude	2012	Looking back how did the contact with public agencies or officials by e-mail, via Internet websites and/or via tablet / smartphone apps compare with what you had expected? % better + much better than expected (rescaled on a 0-100 scale)	Fulfillment of expectations	March 2015
User Survey	Attitude	2012	To what extent do you agree or disagree with the following statements? When compared with other means to come into contact with public agencies or officials (e.g., in-person, by phone or mail), through use of e-mail, Internet websites and/or tablet / smartphone apps % agree + strongly agree (rescaled on a 0 - 100 scale) Perceived benefits (8 statements: time, money, flexibility, quality, simplification, control, transparency, trust) % agree + strongly agree (rescaled on a 0-100 scale)	Perceived Benefits	March 2015
User Survey 2012	User's eReadiness	2012	% Lack of ability to use / non-users: I did not have the skills or did not know how to get what I wanted/needed via the Internet; I could not find or access the information or services I wanted/needed; I tried but I abandoned the service, because the service was too difficult to use; I tried but I abandoned the service, because the service's website or application had technical failures	Lack of Ability	March 2015

Figure III.3: Environment variables

Source	Туре	Үеаг	Description	Indicator	Data of extraction
Eurostat	Socio- demo-graphic data	2014	Number of individuals	Population	March 2015
Eurostat	Socio- demo-graphic data	2013	Gross domestic product at market prices - At current prices	GDP	March 2015
Eurostat	Socio- demo-graphic data	2013	This indicator is the ratio between the number of elderly persons of an age when they are generally economically inactive (aged 65 and over) and the number of persons of working age (from 15 to 64). The value is expressed per 100 persons (of working age).	Old Age Ratio	March 2015
World Bank	Socio- demo-graphic data	2013	People living in urban areas as defined by national statistical offices. It is calculated using World Bank population estimates and urban ratios from the United Nations World Urbanisation Prospects.	Urban Population Ratio	March 2015
Eurostat	Socio- demo-graphic data	2013	Population by educational attainment level: % of individuals aged 25-64 upper tertiary education (level 5-8)	Educational Level	March 2015
DAS	ICT Readiness	2014	To be classified in this group, an individual has to have basic or above basic skills in all the four Digital Competence domains included in the index: information, communication, content-creation and problem solving.	Digital Skills	June 2015
Eurostat	ICT Readiness	2014	Percentage of households who have Internet access at home. All forms of Internet use are included. The population considered is aged 16 to 74.	Households internet access	March 2015
Eurostat	ICT Readiness	2014	Mobile Broadband penetration - all active users (#of user on population)	Mobile Broadband Diffusion	March 2015
Eurostat	ICT Readiness	2014	Fixed broadband penetration (subscriptions as a % of population)	Broadband Diffusion	March 2015
Eurostat	ICT Readiness	2014	Fast broadband (at least 30Mbps) penetration (subscriptions as a % of population)	Fast broadband Diffusion	March 2015
Eurostat	ICT Readiness	2014	Ultrafast broadband (at least 100Mbps) penetration (subscriptions as a % of population)	Ultrafast Broadband Diffusion	March 2015

Source	Туре	Үеаг	Description	Indicator	Data of extraction
Eurostat	ICT Readiness	2013	The indicator provided is GERD (Gross domestic expenditure on R&D) as a percentage of GDP. "Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications"	R&D Expenditure	March 2015
Eurostat	ICT Readiness	2012	Percentage of persons employed with ICT specialist skills	ICT Skills of Employed	March 2015
COR- RUPTION PERCEPTI- ONS INDEX (www. transpa- rency.org)	Governance structure	2014	The Corruption Perceptions Index ranks countries/ territories based on how corrupt a country's public sector is perceived to be. It is a composite index, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions. Scores range from 0 (highly corrupt) to 100 (very clean).	Corruption	March 2015
Mystery Shopping	Governance structure	2014	% services provided at national level over all life events	Level of centralisation	March 2015

IV

Annex IV: List of country acronyms

Country	Acronyms (in alphabetical order)
AT	Austria
BE	Belgium
BG	Bulgaria
СН	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
RS	Serbia
SE	Sweden
SI	Slovenia
SK	Slovakia
TR	Turkey
UK	United Kingdom

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