

Module Introduction to E-Government

Summer term 2025

Benchmarking and Evaluation of E-Government Implementation

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Benchmarking and Evaluation of E-Government Implementations

Agenda

- ❖ Why benchmarking of e-government implementations?
- ❖ EU benchmarking
- ❖ E-government monitor of the Initiative D21
- ❖ E-government competition in Germany
- ❖ Evaluation of e-government initiatives



➤ Why benchmarking of e-government implementations?

Motivation for Benchmarking (1)

- ❖ Instrument to assess relevant aspects in the e-government evolution – comparing in particular developments across states
 - 'View from the outside'
 - Aspects of assessment e.g. availability and accessibility of public service offers, use of offers, acceptance, transparency, mobility, cross-border public services, etc.
- ❖ Motivation for investments to improve public services in a country / competition among states

Motivation for Benchmarking (2)

- ❖ Multi-function of benchmarks
 - Competitive advantage
 - Orientation
 - Learning factor
 - Motivation to realize improvements in order to perform better in a ranking in the next round of assessment

International benchmarks in e-government (1/2)

- ❖ EC Benchmarking Studies
 - Annual evaluations since two decades
 - The last seven benchmarking reports:
 - 2018 - the digital efforts of European countries are visibly paying off: <https://digital-strategy.ec.europa.eu/en/news/egovernment-benchmark-2018-digital-efforts-european-countries-are-visibly-paying>
 - 2019 - Empowering Europeans through trusted digital public services: <https://op.europa.eu/en/publication-detail/-/publication/c896937b-f554-11e9-8c1f-01aa75ed71a1/language-en>
 - 2020 - eGovernment that works for the people: <https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2020-egovernment-works-people>
 - 2021 - Shaping Europe's digital future: <https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2021>
 - 2022 - Synchronising Digital Governments: <https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2022>
 - 2023 – Connecting Digital Governments: <https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023>
 - 2024 – Advancing Public Digital Service Delivery: <https://digital-strategy.ec.europa.eu/de/node/12898>

International benchmarks in e-government (2/2)

- ❖ EU Digital Economy and Society Index (DESI) and International Digital Economy and Society Index (I-DESI)
 - <https://digital-strategy.ec.europa.eu/en/policies/desi>
 - Since 2014
 - With simulation tool
- ❖ UN E-Government Surveys & Development Index (bi-annual)
 - <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2022>
 - Since 2001
- ❖ OECD Studies
 - 2009: Rethinking E-Government Services: User-centred Approaches,
<https://www.oecd.org/gov/digital-government/rethinking-e-governments-user-centred-approaches.htm>
 - Government at a glance Studies 2009 – 2025 (bi-annual) with digitalisation component:
http://www.oecd-ilibrary.org/governance/government-at-a-glance_22214399

UN E-Government Development Index 2024 (and previous years)

<https://publicadministration.un.org/egovkb/Data-Center>

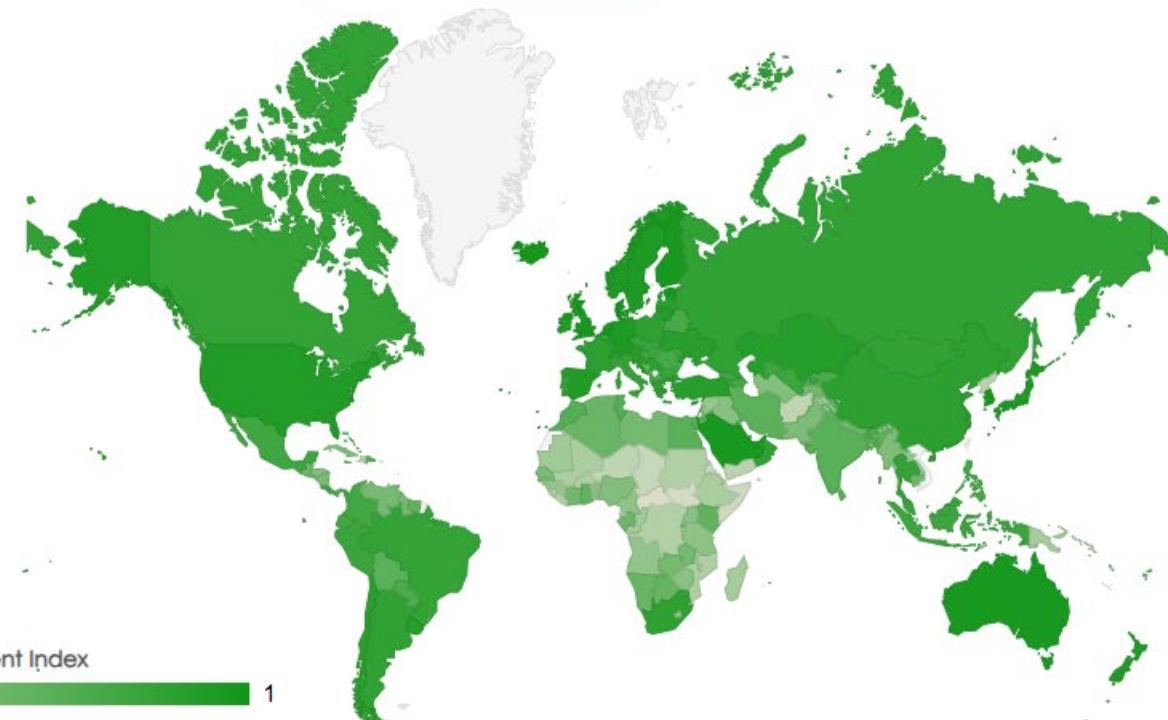
Country Data

Year Data Regions Country Groups

2024 E-Government Development Index 5 selected Choose Country Groups

Countries Groups

Choose Countries Choose Groups Update Clear



UN E-Government Development Index 2022

<https://publicadministration.un.org/egovkb/Data-Center>

Compare 2022 with:



Download 2022 Data in Excel/CSV format

Country	Group	Rating Class	Rank 2022	EGDI 2022	MSQ
Denmark	VHEGDI	VH	1	0.9717	
Finland	VHEGDI	VH	2	0.9533	
Republic of Korea	VHEGDI	VH	3	0.9529	No*
New Zealand	VHEGDI	VH	4	0.9432	
Iceland	VHEGDI	VH	5	0.9410	
Sweden	VHEGDI	VH	5	0.9410	Yes*
Australia	VHEGDI	VH	7	0.9405	
Estonia	VHEGDI	VH	8	0.9393	
Netherlands	VHEGDI	VH	9	0.9384	
United States of America	VHEGDI	VH	10	0.9151	No*
United Kingdom of Great Britain and Northern Ireland	VHEGDI	VH	11	0.9138	Yes*
Singapore	VHEGDI	VH	12	0.9133	
United Arab Emirates	VHEGDI	VH	13	0.9010	Yes*
Japan	VHEGDI	VH	14	0.9002	
Malta	VHEGDI	VH	15	0.8943	No*
Israel	VHEGDI	V3	16	0.8885	
Norway	VHEGDI	V3	17	0.8879	
Spain	VHEGDI	V3	18	0.8842	Yes*
France	VHEGDI	V3	19	0.8832	
Austria	VHEGDI	V3	20	0.8801	

UN E-Government Development Index 2024

Compare 2024 with:

<https://publicadministration.un.org/egovkb/Data-Center>



Download 2024 Data in Excel/CSV format

Country	Group	Rating Class	Rank 2024	EGDI 2024	MSQ
Denmark	VHEGDI	VH	1	0.9847	
Estonia	VHEGDI	VH	2	0.9727	
Singapore	VHEGDI	VH	3	0.9691	
Republic of Korea	VHEGDI	VH	4	0.9679	
Iceland	VHEGDI	VH	5	0.9671	No*
Saudi Arabia	VHEGDI	VH	6	0.9602	
United Kingdom of Great Britain and Northern Ireland	VHEGDI	VH	7	0.9577	
Australia	VHEGDI	VH	8	0.9577	No*
Finland	VHEGDI	VH	9	0.9575	
Netherlands	VHEGDI	VH	10	0.9538	No*
United Arab Emirates	VHEGDI	VH	11	0.9533	
Germany	VHEGDI	VH	12	0.9382	
Japan	VHEGDI	VH	13	0.9351	
Sweden	VHEGDI	VH	14	0.9326	
Norway	VHEGDI	VH	15	0.9315	No*
New Zealand	VHEGDI	VH	16	0.9265	
Spain	VHEGDI	VH	17	0.9206	
Bahrain	VHEGDI	VH	18	0.9196	No*
United States of America	VHEGDI	VH	19	0.9195	No*
Ireland	VHEGDI	VH	20	0.9138	
Lithuania	VHEGDI	VH	21	0.9110	No*
Austria	VHEGDI	VH	22	0.9065	No*

<https://digital-strategy.ec.europa.eu/de/node/12898>

➤ EU-Benchmarkings of e-government 2024



eGovernment Benchmark method framework

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023>

Key Dimensions	User Centricity	Transparency	Key Enablers	Cross-Border Services
Indicators	Online Availability	Service Delivery	eID	Cross-Border Online Availability
	User Support	Service Design	eDocuments	Cross-Border User Support
	Mobile Friendliness	Personal Data	Pre-filled Forms	Cross-Border eID
			Digital Post	Cross-Border eDocuments
Methods	Mystery Shopping Automated Tool	Mystery Shopping	Mystery Shopping	Mystery Shopping
Life Events	2022 + future even years		2021 + future odd years	
	Business StartUp Career Family Studying		Regular Business Operations Health Moving Starting a Small Claims Procedure Transport	
Pilots	Security, Mobile Service Delivery, Accessibility Foundations, Findability, Usability			

Main areas of measure: User Centricity (1)

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)

- ❖ More than 9 out of 10 measured government services (85%) available online (in 2023 84 %) within Europe
- ❖ Percentage of services available online differs greatly: DK + MT 100 %; 3 Countries have < 60 % of measured government services online
- ❖ Only 7 % of these services within EU27+ delivered proactively

Fig. 2.7 Online Availability of services per government level (p. 18)

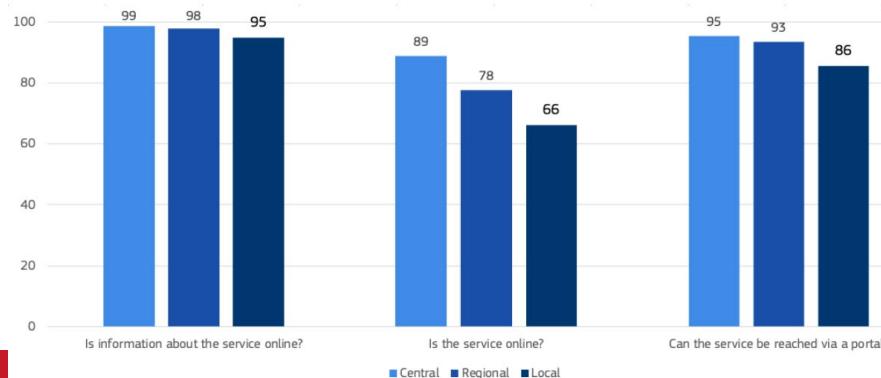
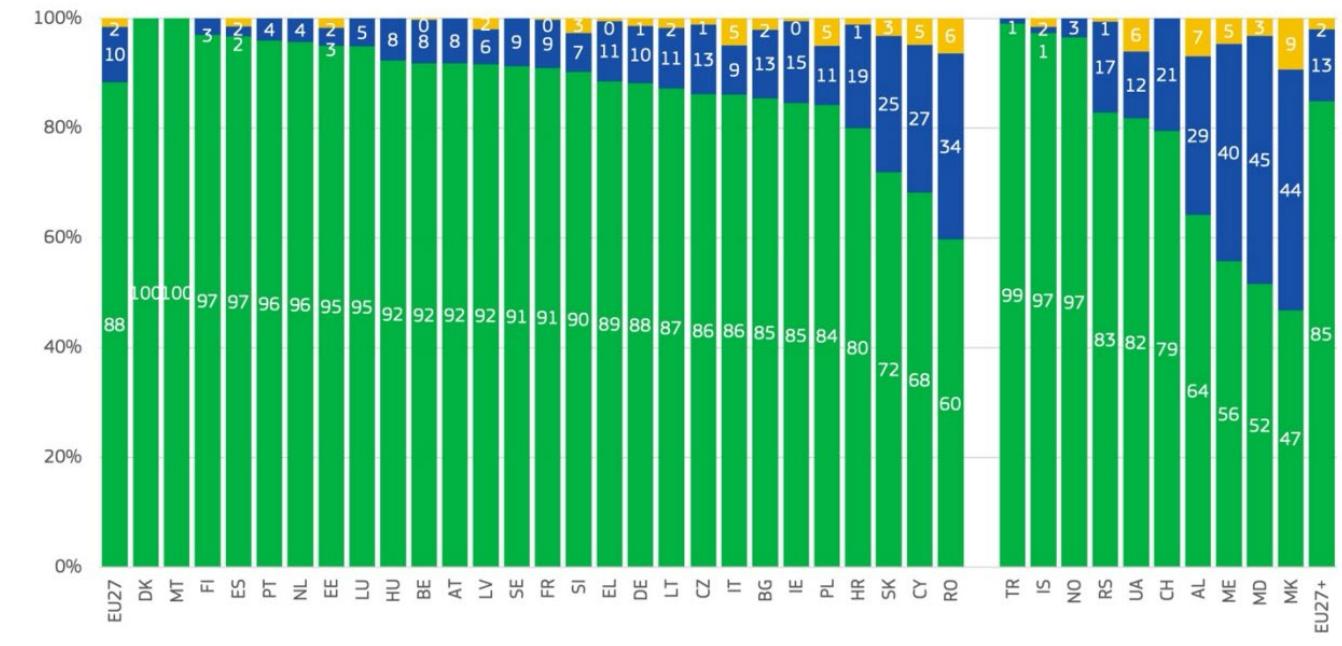


Fig. 2.6 Online Availability of services across Europe (p. 17)



Main areas of measure: User Centricity (2)

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)

- ❖ Web Content Accessibility Guidelines (WCAG) measure of eight criteria:
only 8 % pass all eight criteria

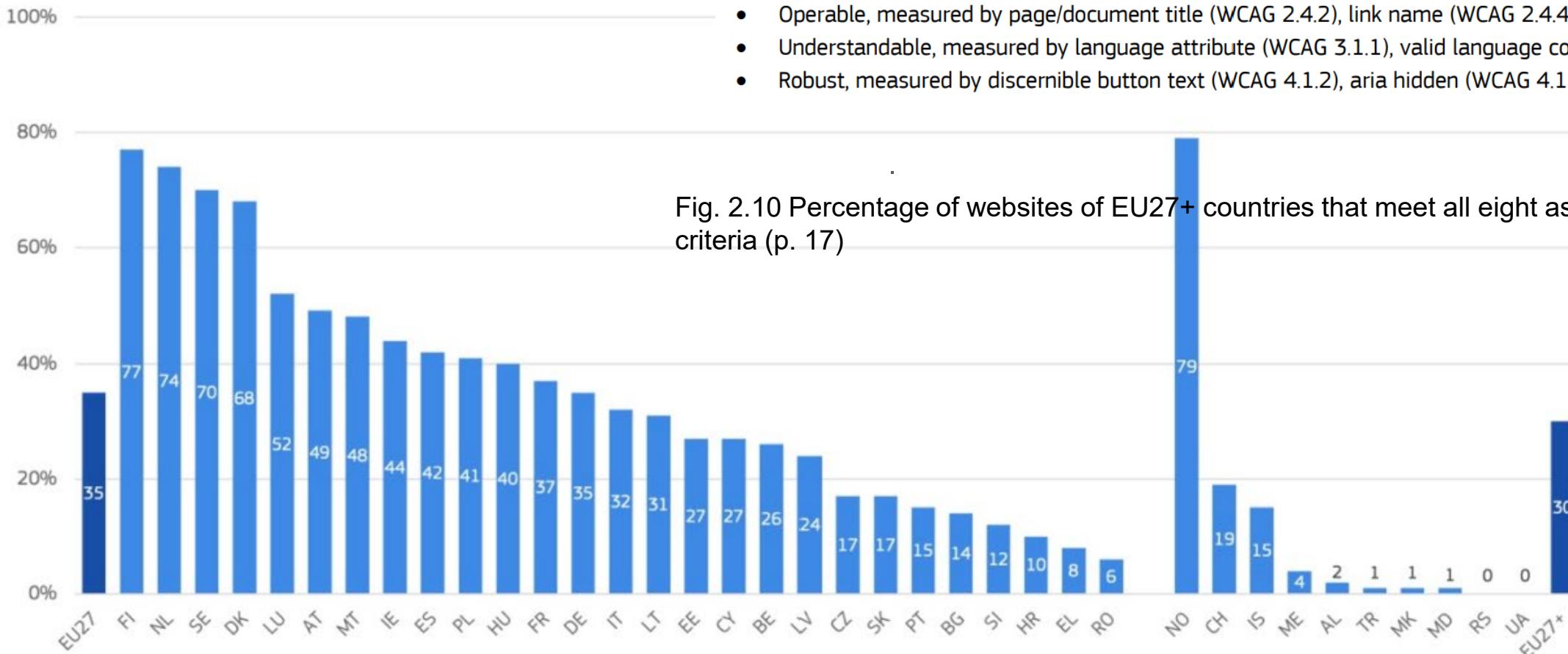


Fig. 2.10 Percentage of websites of EU27+ countries that meet all eight assessed WCAG criteria (p. 17)

Main areas of measure: User Centricity (3)

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)

- ❖ Mobile Friendliness:
 - > 50 % of countries scoring > 95 %
 - Only 1 country scoring < 85 %
 - All SE and FI gov. website measured are mobile-friendly
- ❖ Good practice example from Austria (p. 24)

Austria – Mobile Government - Expansion of the Digital Office App

Top-level benchmark

User centricity, Key enablers

Life event

Moving, Family

1. Good practice description: Expansion of the “Digital Office App”

Alongside the oesterreich.gv.at platform, the Digital Office App is the gateway to Austria's e-government services for citizens.

Thanks to the digital mailbox, for example, users receive a push notification and can easily and conveniently communicate with public authorities from the App. Since last year Last year, the entire system of registration – including the registration and deregistration of primary and secondary residences – can be handled via the App.

In addition, new services such as the cost-free download of birth certificates have been integrated, the range of information has been expanded and navigation has been improved.

2. Benefits

- Time and location-independent use of e-Government Services
- Mobile first approach means services can be used easily and intuitively on smartphones
- User-friendly communication with public authorities and access to official documents and certificates via App.

3. Key success factors

- With the mobile-first approach already defined in the Digital Austria Act, Austria is ensuring that all applications and services can be used easily and intuitively on smartphones – just as easily as we are used to from all other everyday apps.

4. More information

More information can be found at: https://www.oesterreich.gv.at/ueber-oesterreichgvat/faq/app_digitales_amt.html

Main areas of measure: Transparency (1)

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)

- ❖ Transparency (promoting efficiency, accountability, trust in public sector organizations) – per life event (p. 25)

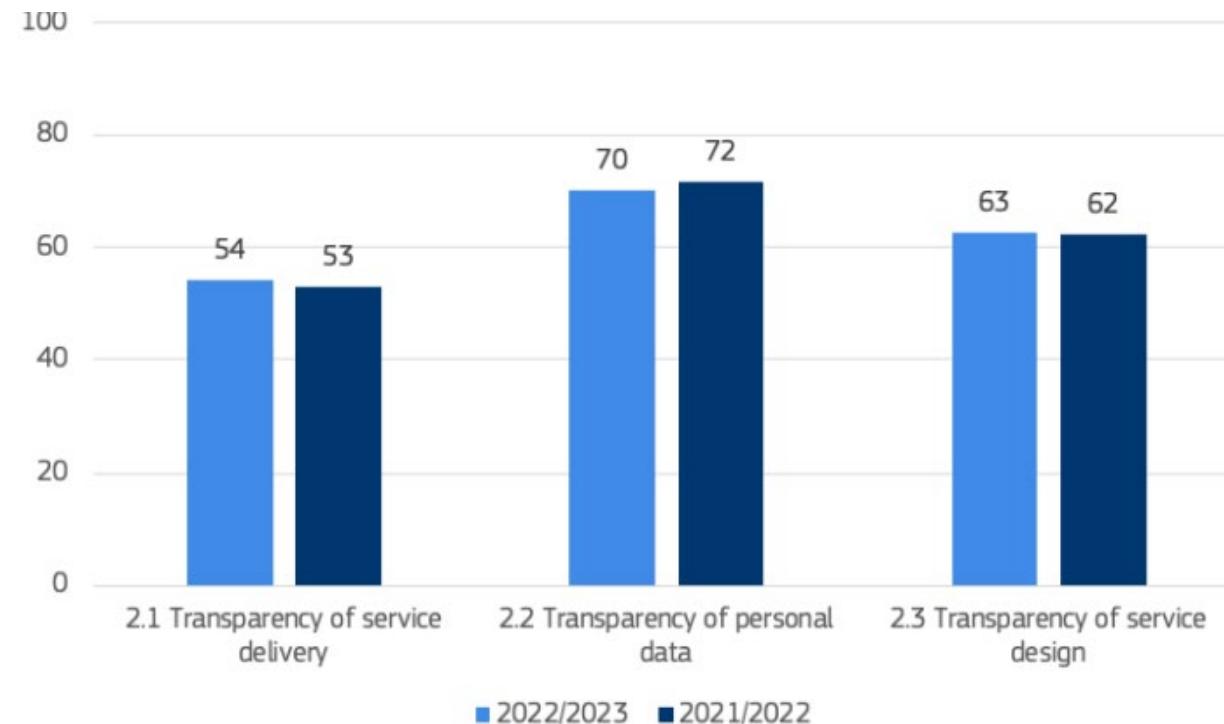
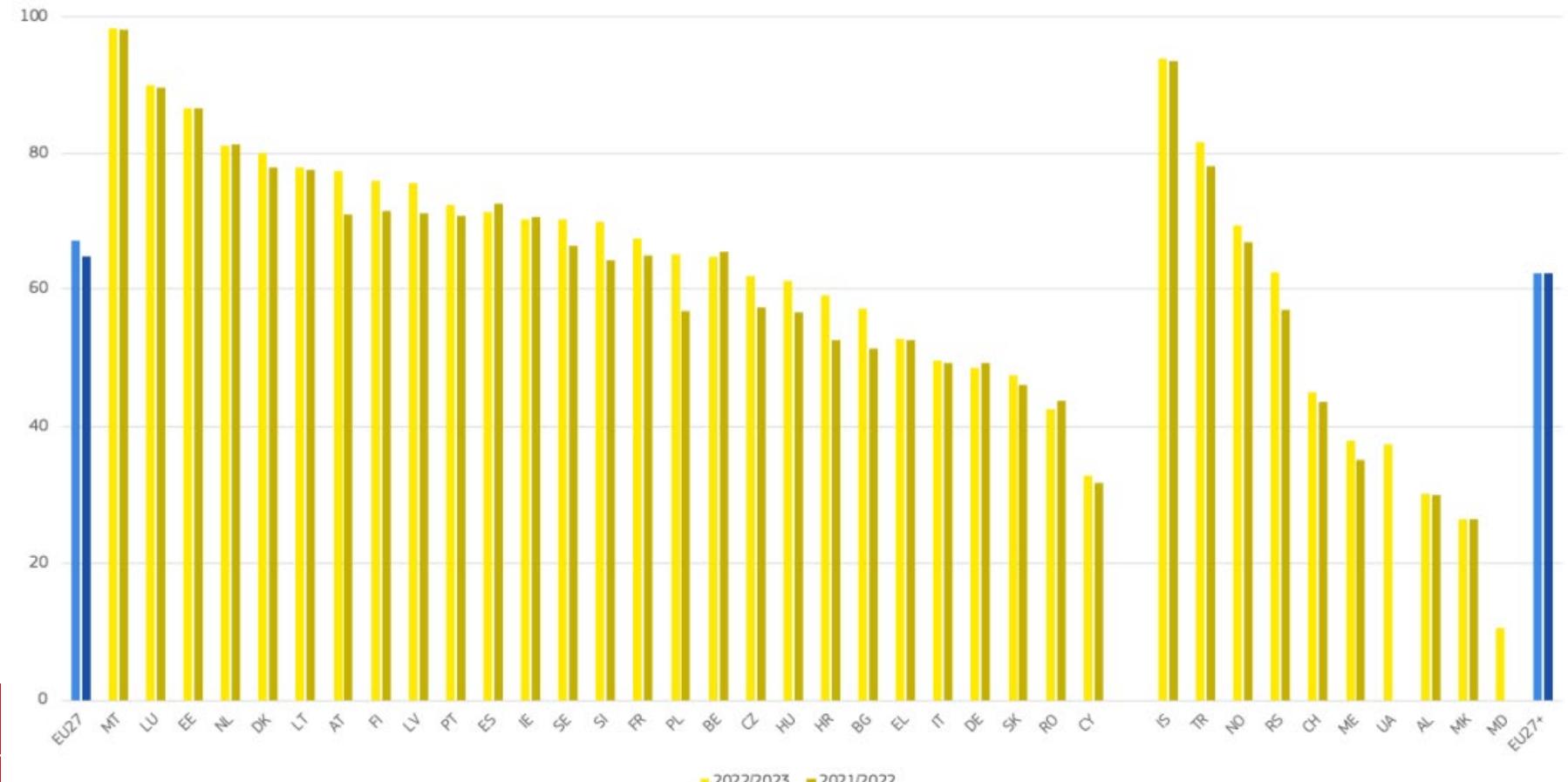


Figure 2.14: Biennial averages of Transparency indicators for 2022/2023 and 2021/2022

Main areas of measure: Transparency (2)

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)

- ❖ Transparency overall (p. 26)

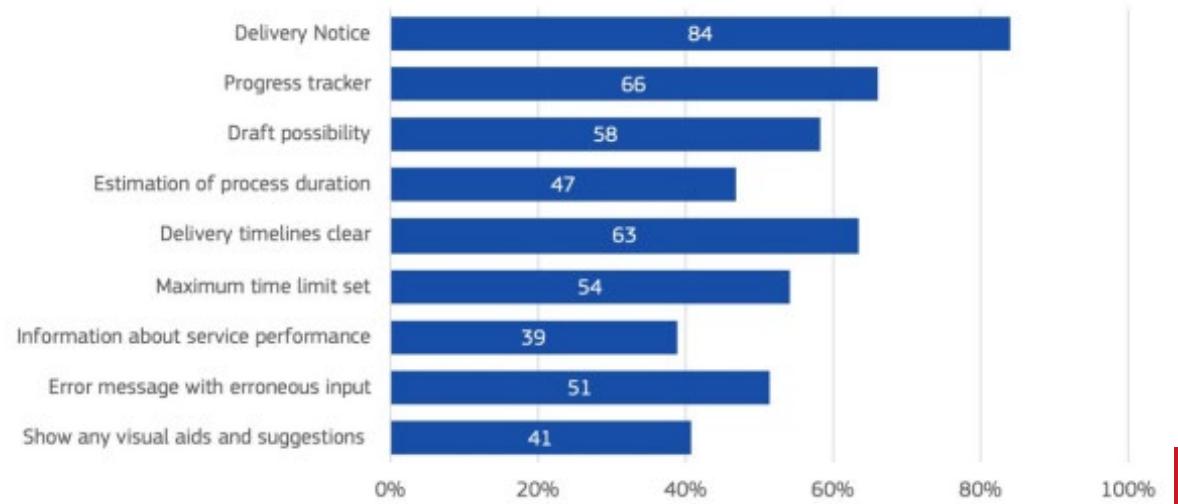


Main areas of measure: Transparency of Service (3)

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)

Transparency of Service Design – Good Practice example from Poland (p. 29)

Fig. 2.16 Score per question for Transparency of Service Delivery Indic. (p. 26)



Poland – mObywatel 2.0

Top-level benchmark

User centricity, Transparency, Key enablers

Life event

Regular business operations, Business start-up, Health, Moving, Transport, Career, Family

1. Good practice description

In 2023 the Ministry of Digitalization introduced a new version of its flagship mObywatel 2.0 application. The new version expanded the range of digital documents and services, introduced the innovative mID Card (mDowód), establishing Poland as the largest EU country with a fully mobile identity document. The inclusion of the mCitizen profile has facilitated authentication in national online services. A simplified framework for cooperation with public and commercial entities, supported by clear guidelines, has allowed seamless integration of services within the application.

2. Benefits

- **High Adoption:** mObywatel 2.0 saw over 5.8 million mID Card issuances in the first six months, indicating widespread user adoption.
- **Efficiency Boost:** Streamlined cooperation led to approximately 650 collaboration requests, demonstrating increased efficiency in delivering services through the application.
- **User Empowerment:** Citizens gained control over personal data, enhancing transparency and empowering them in managing their digital identities.

3. Key success factors

- **User-Centric Development:** Extensive user engagement, including usability tests, studies, interviews, and citizen involvement, ensured the application met public needs.
- **Proactive Security Measures:** Initiatives like security surveys, educational outreach, and thorough tests built trust among users and stakeholders.
- **Clear Regulatory Framework:** Dedicated legal act and published guidelines established a transparent regulatory framework for data transmission, ensuring user consent and control.

4. More information

More information can be found at: www.info.mobywatel.gov.pl/

Main areas of measure: Key enablers

<https://digital-strategy.ec.europa.eu/de/node/12898>
(Background report)

Fig. 2.21 Key enablers per country (p. 31)

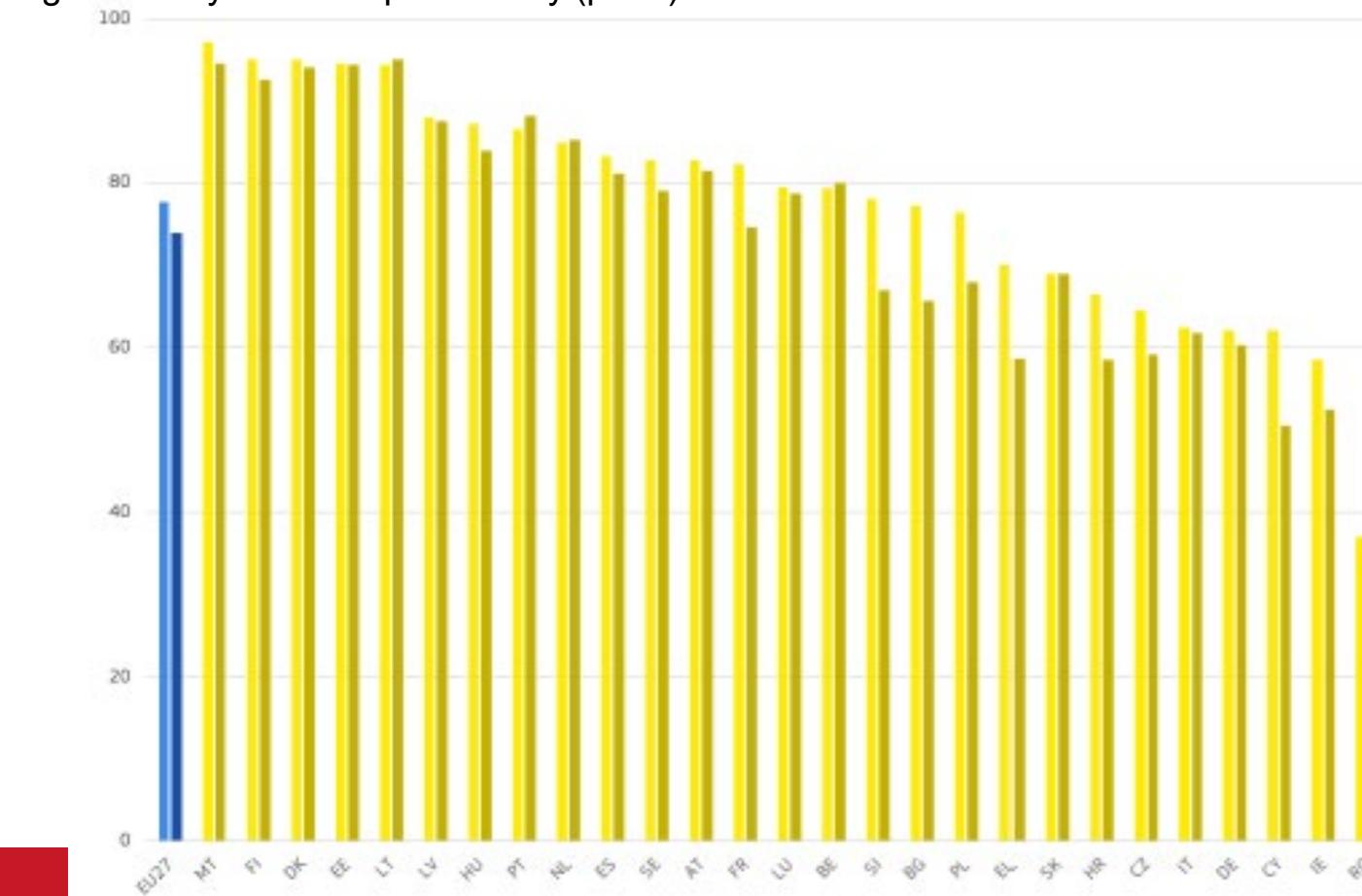
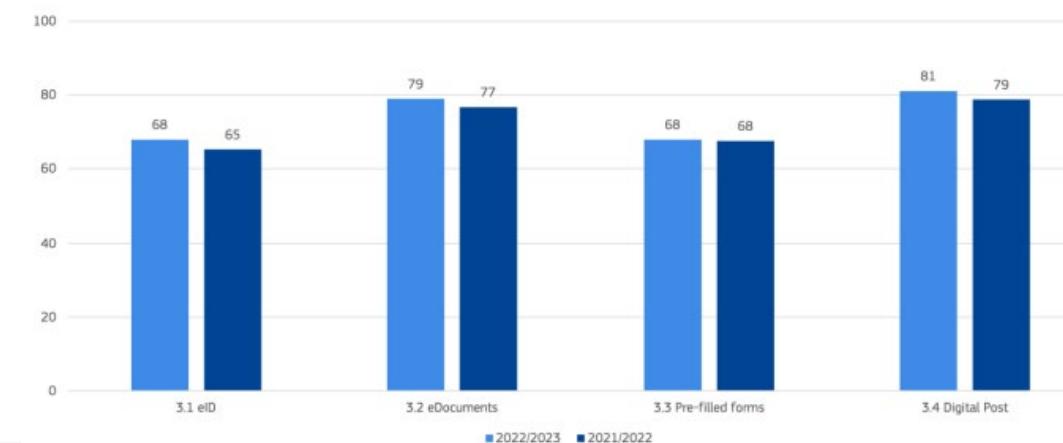


Fig. 2.20 Average for key enablers (p. 30)



Main areas of measure: Key enablers best practice example

<https://digital-strategy.ec.europa.eu/de/node/12898>
(Background report)

Best practice example from Denmark for Digital Identity Wallet (p. 33)

Denmark – “sikkerdigital.dk” a united information universe about cyber and information security

Top-level benchmark

User centricity and Transparency

Life event

Regular business operations, Business start-up, Family and career

1. Good practice description

At sikkerdigital.dk citizens, businesses, and authorities can access knowledge, guidance, and practical tools for a secure digital everyday life, as well as guidance to operate within current regulations and threat assessments. A group of civil society organizations and authorities operates the site, representing the society as a whole. The website is segmented into distinct sections addressing citizens, business, and authorities, facilitating an effortless navigation. In addition, the site also contains information about the Cyberhotline for Digital Security, which serves citizens and businesses seeking guidance on enhancing digital security measures, managing and preventing digital fraud, and handling cyber-attacks.

2. Benefits

- 300.000 annual visitors – 75% citizens, 12% authorities, and 12% businesses
- One main site, branded through various channels and campaigns
- An easy and effective way for citizens, business and authorities to access trustworthy information

3. Key success factors

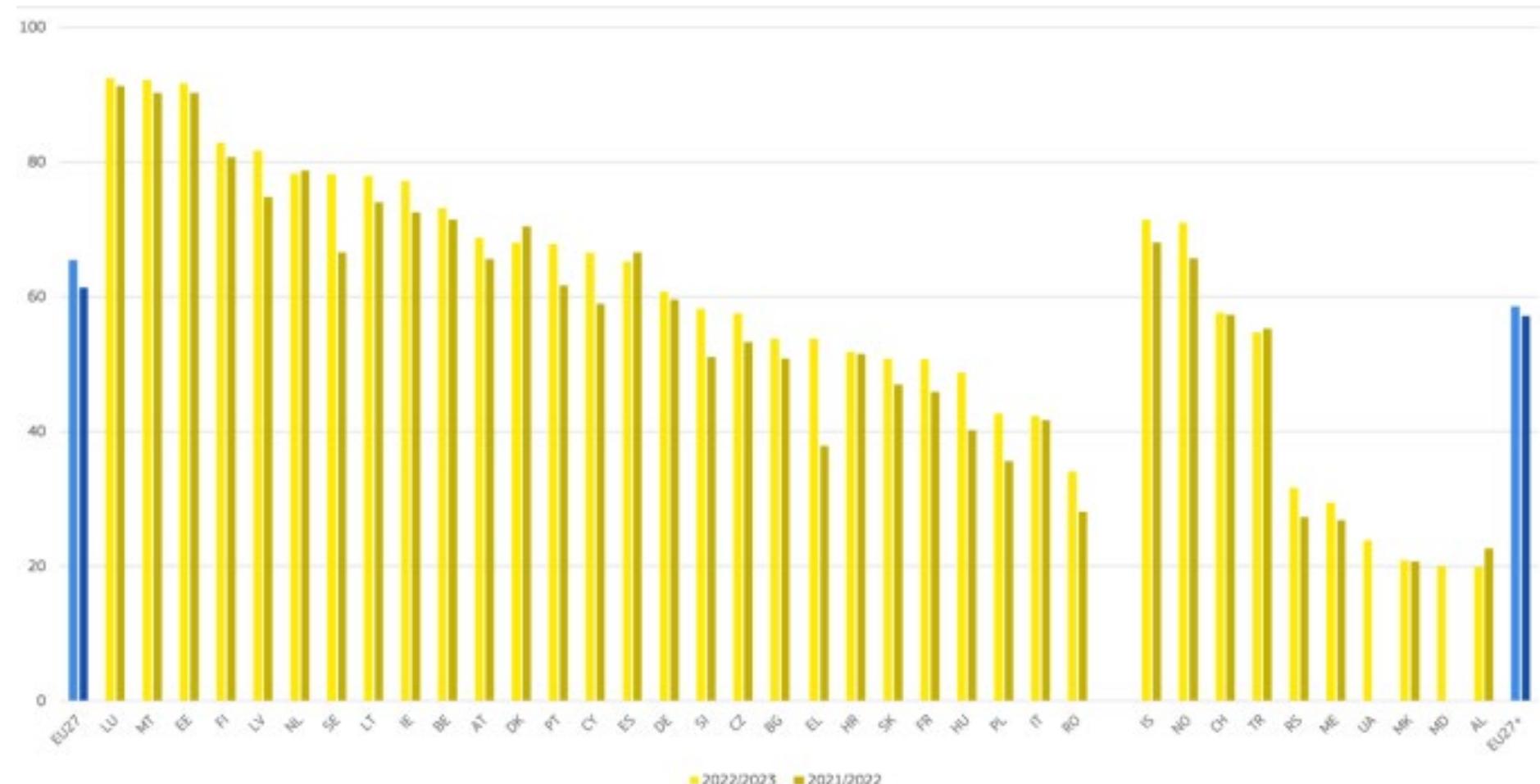
- Targeted and user friendly communication
- User friendly tools, guidance and tests
- A real person users directly can call to get help with cyber and information security issues
- Continuous updating of catalogues, information and templates
- Associated social media profiles promoting the site

4. More information

<https://sikkerdigital.dk/>

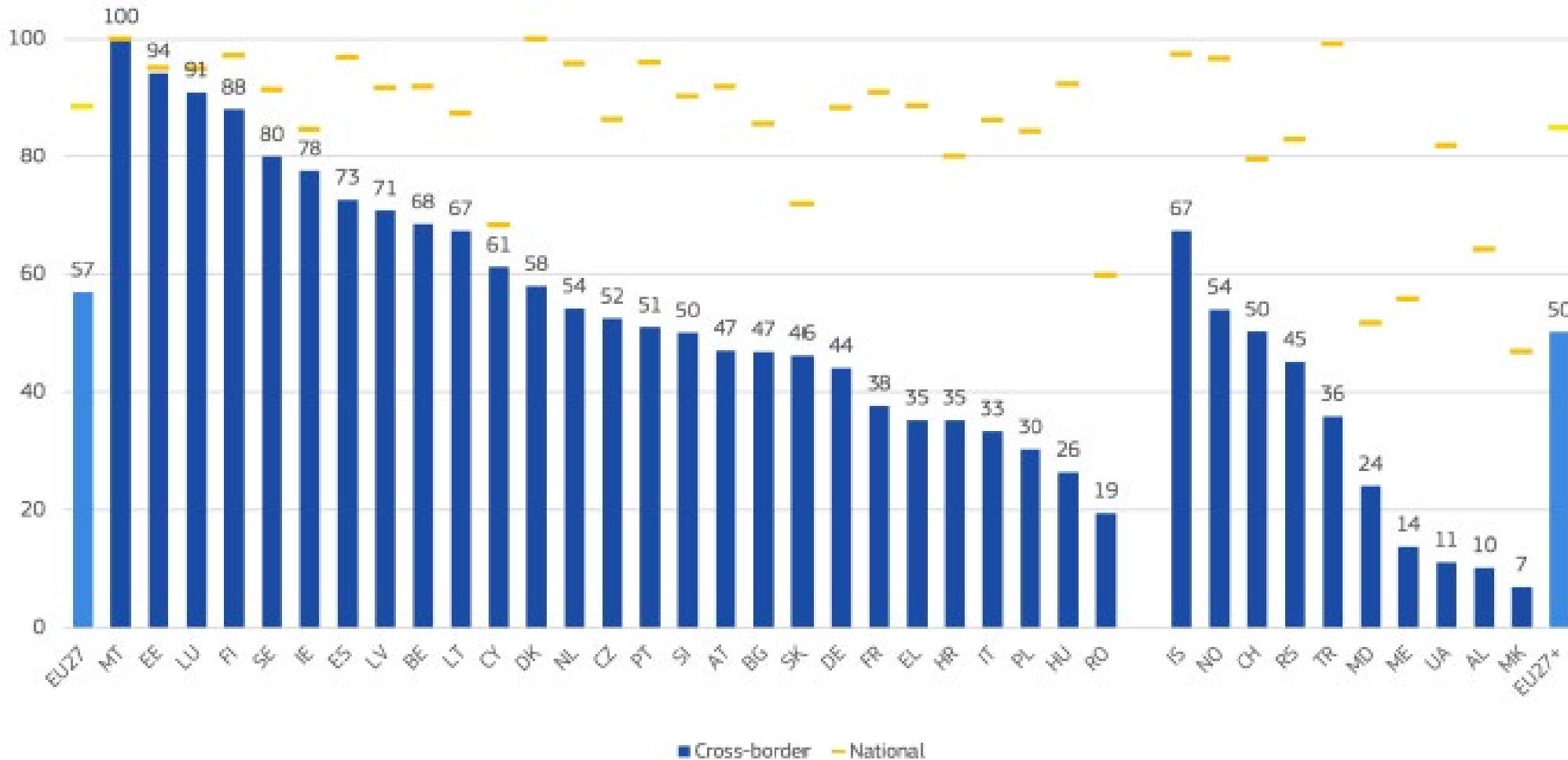
Main areas of measure: Cross-Border Services average

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)



Main areas of measure: Cross-Border Services vs. National

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)



Main areas of measure: Cross-Border Services Best Practice

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report, p. 37)

Serbia – Open Balkan Initiative

Top-level benchmark

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

Life event

Regular business operations, Business start-up, Health, Moving, Transport, Starting a small claims procedure, Career, Studying, Family

1. Good practice description

Open Balkan is a regional initiative of the Republic of Serbia, the Republic of Albania and the Republic of North Macedonia to establish an economic zone with the aim of increasing trade and cooperation, and improving mutual bilateral relations. The agreements signed in Tirana on December 21, 2021 aim to remove barriers that hinder trade and the free movement of persons, and enable the use of electronic services within the initiative itself. Having in mind that Protocols following the signed agreements enter into force on March 1st 2024, citizens of economies participating in Open Balkan initiative will be able to obtain Open Balkan ID number on their national Portals for eGovernment which enables them to user other services available within this initiative. First service available to them is *Free access to labor market* which enables them to live and work in the receiving party up to 2 years with possibility of extension. By obtaining approval from the relevant authority for free access to labor market, the person may stay, live and work in Serbia without the need to take on any other administrative procedures related to stay or obtain working permit. The service is free of charge and enables them to get employment in Serbia under the same conditions as Serbian citizens.

2. Benefits

- Increased trade and cooperation, improved bilateral relations
- Increased mobility of citizens and businesses of participating countries and easy access to labour markets

3. Key success factors

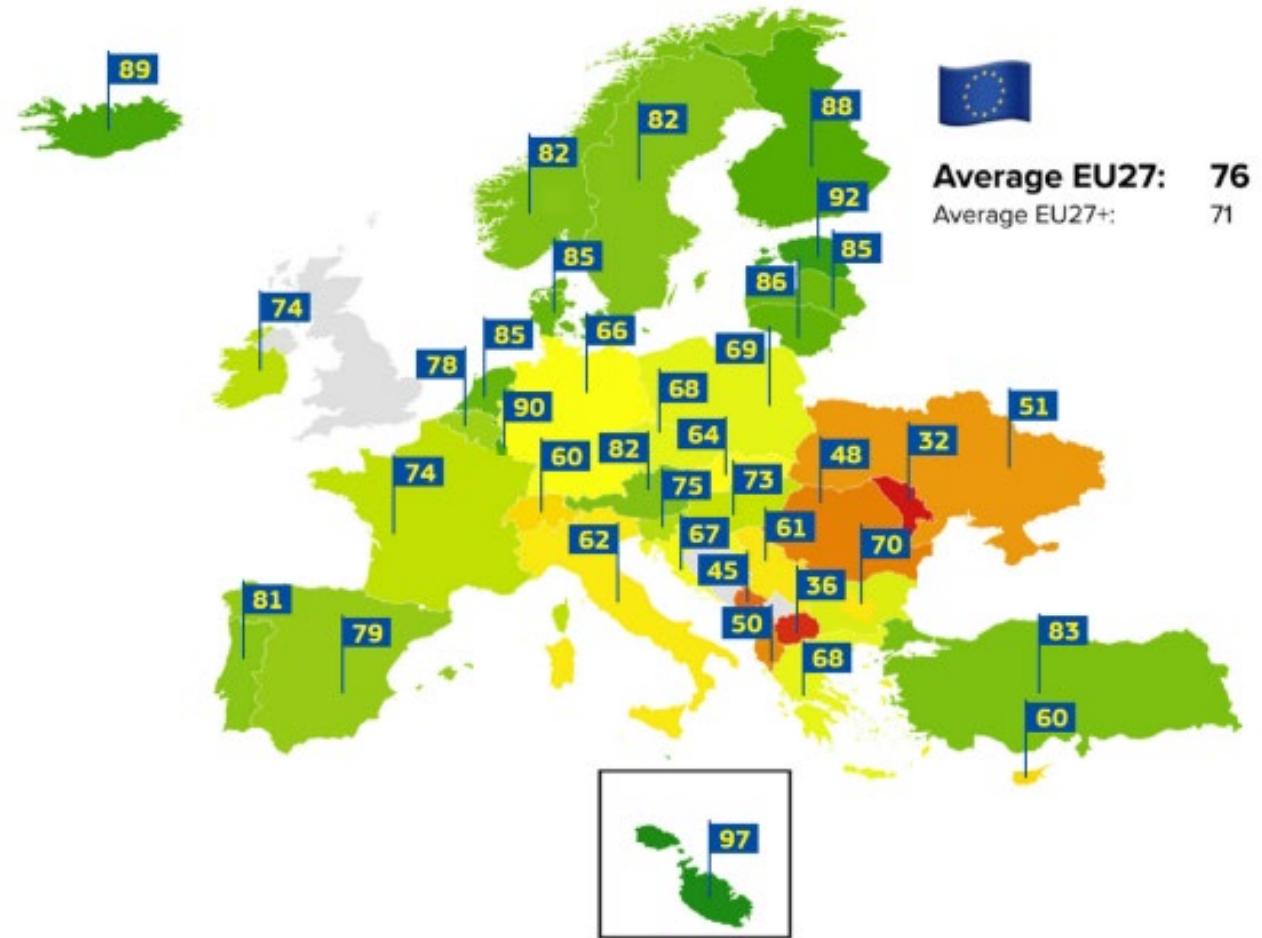
- Common eID framework in line with EU eIDAS enabling for trust and interoperability in cross-border service provision

4. More information

More information can be found at: <https://euprava.gov.rs/openbalkan/english>

Overall picture of performance per country 2024

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)



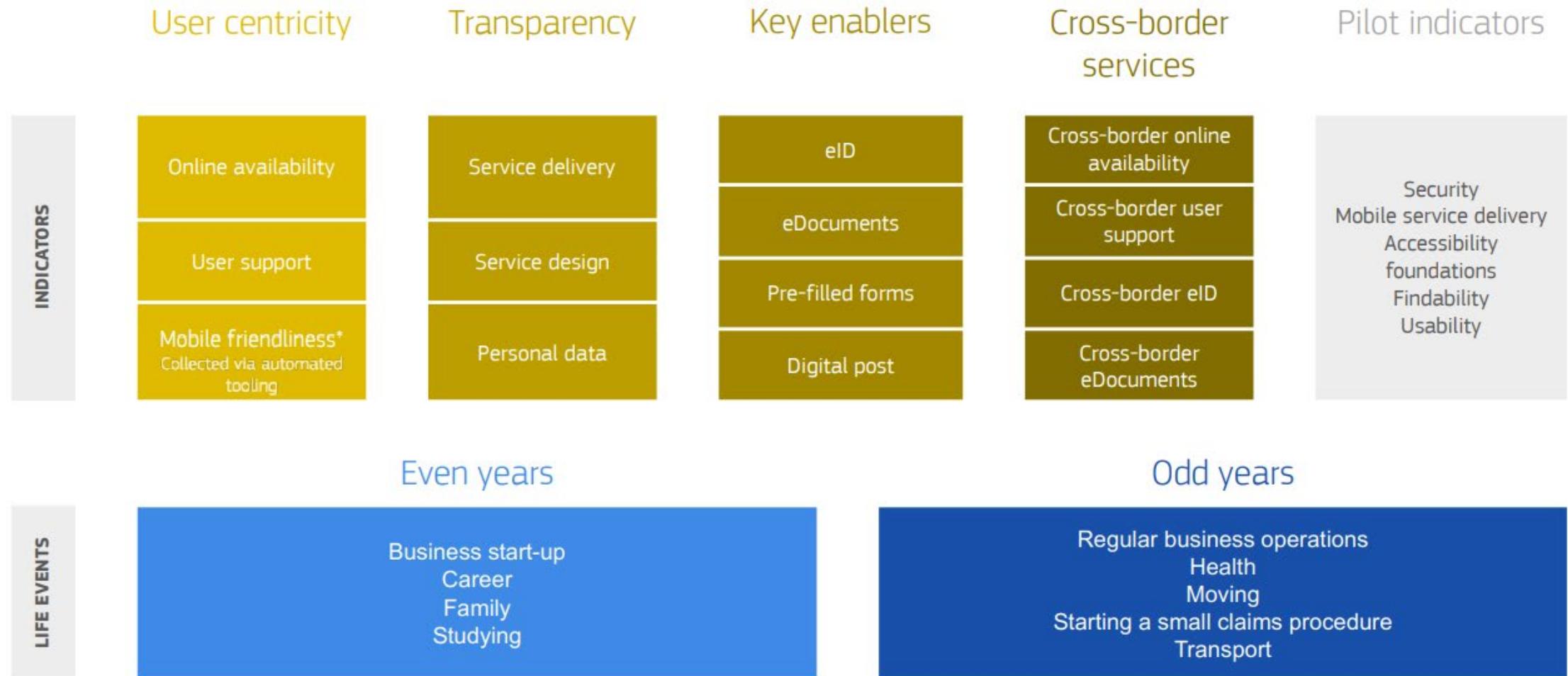
<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-20223>

➤ EU-Benchmarkings of e-government 2023



eGovernment Benchmark method framework

<https://digital-strategy.ec.europa.eu/de/node/12898> (Background report)



Main areas of measure: User Centricity (1)

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

- ❖ More than 8 out of 10 measured government services (84%) available online (in 2022 81 %) within Europe
- ❖ Percentage of services available online differs greatly: DK + MT 100 %; 3 Countries have < 60 % of measured government services online
- ❖ Only 7 % of these services within EU27+ delivered proactively

Fig. 2.7 Online Availability of services per government level (p. 14)

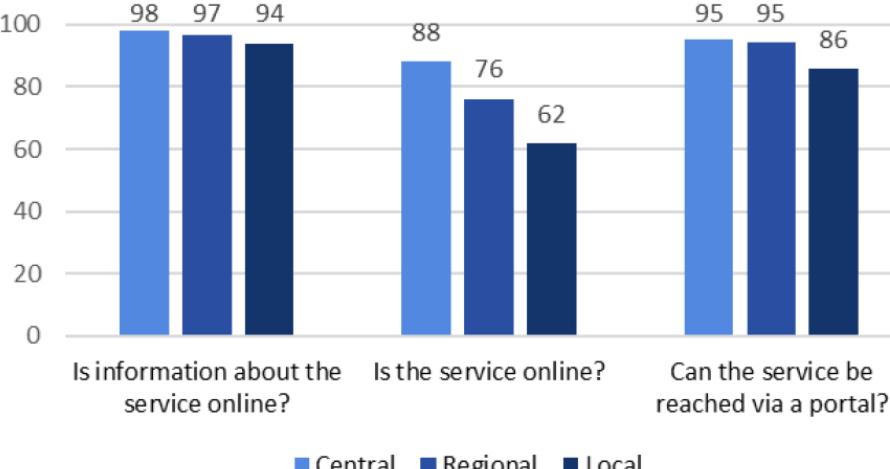
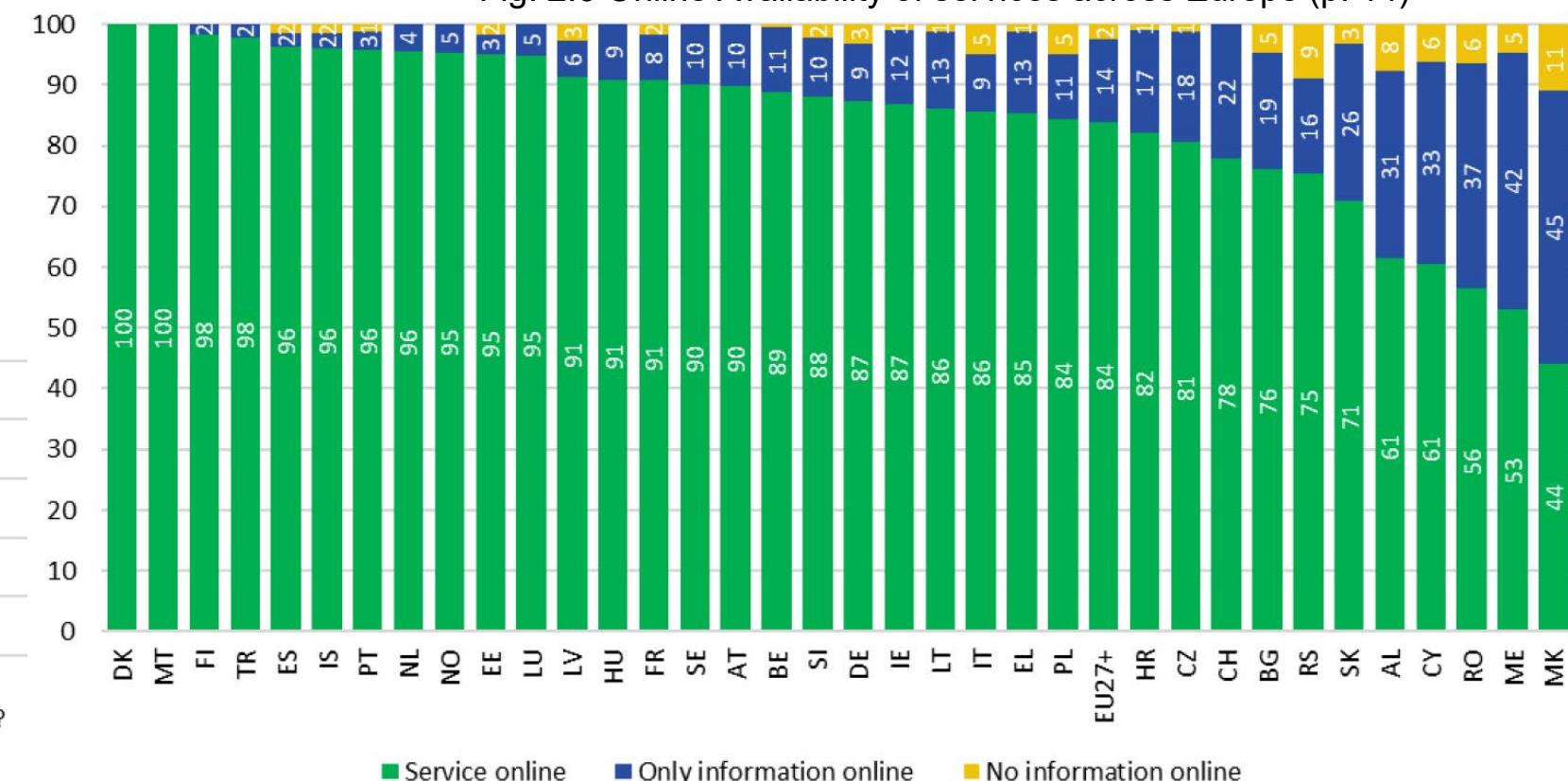


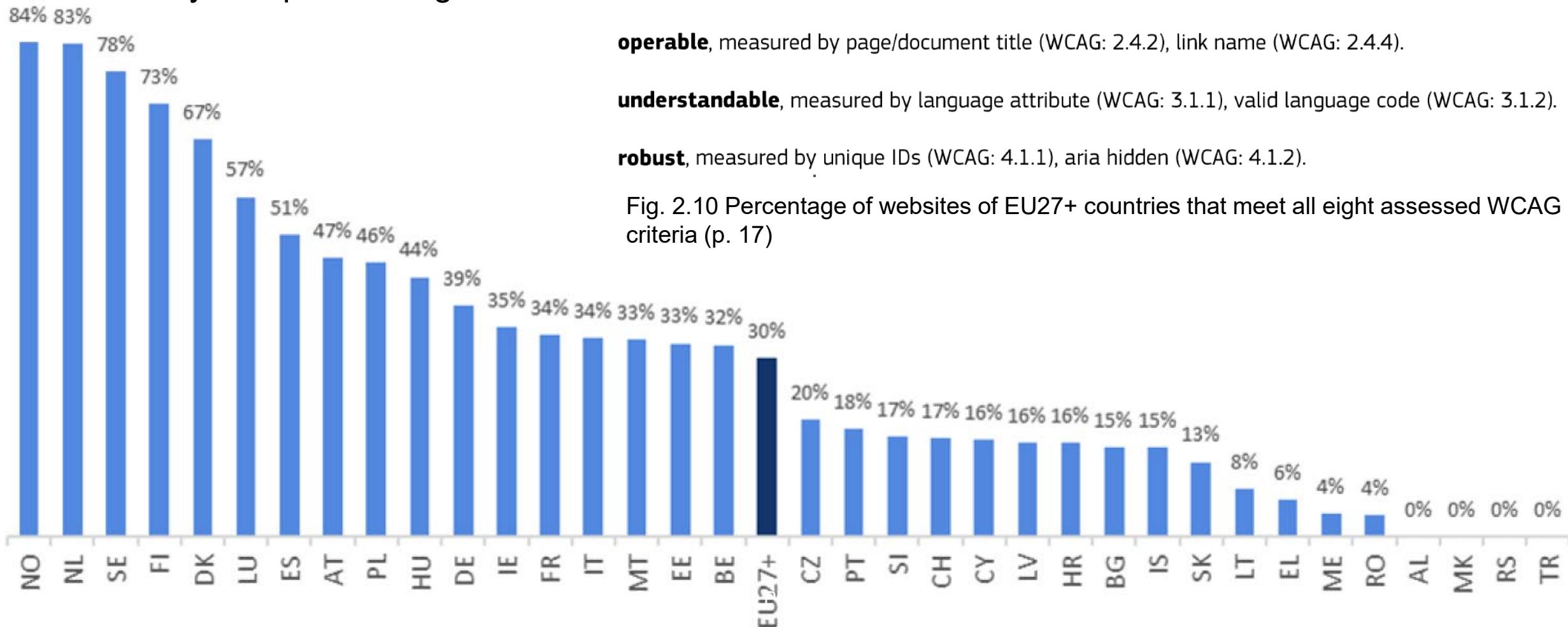
Fig. 2.6 Online Availability of services across Europe (p. 14)



Main areas of measure: User Centricity (2)

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

- ❖ Web Content Accessibility Guidelines (WCAG) measure of eight criteria:
only 8 % pass all eight criteria



Main areas of measure: User Centricity (3)

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

- ❖ Mobile Friendliness:
 - > 50 % of countries scoring > 95 %
 - Only 3 countries scoring < 85 %
 - All SE, FI and BE gov. website measured are mobile-friendly
- ❖ Good practice example from BE (p. 19)

Belgium | Mijn Burgerprofiel (My Citizen Profile) mobile app platform

Relevant Key Dimension(s)

User Centricity, Transparency, Key enablers

Life event

Starting a Small Claims Procedure, Studying, Family, Career

1. Good practice description

Mijn Burgerprofiel mobile app platform is the answer to the expectation of the citizen to have a single mobile application to organize all of their government-affairs. The Mijn Burgerprofiel mobile app platform allows local governments to create a custom branded mobile application that combines both local and Flemish government products and services such as documents, attestations, messages and so on. Flemish and local governments can extend the Mijn Burgerprofiel app with custom services and functionalities. By applying the look and feel of the local government the positive close relationship between the local government and its citizens is maintained and strengthened. The app keeps citizens actively informed about their affairs with the government, such as new messages, important events and actions they need to take in ongoing cases. In addition, the app also acts as a digital vault or personal wallet to safely store personal documents, such as certificates, attestations, or identity documents such as a driver license or insurance card.

2. Benefits

- 13 cities have published a localized app based on the Mijn Burgerprofiel mobile app platform. 14 cities are currently in progress of publishing an app
- The app was installed 200.000 times during the first 6 months after its initial release
- The citizens' engagement with the app was increased with the help of push notifications

3. Key success factors

- We delivered the project in less than 6 months by leveraging on existing building blocks, which enabled us to optimize our resources and accelerate the development process
- We have established a strong partnership with local governments and their service providers to facilitate collaboration and drive efficient delivery of services and features

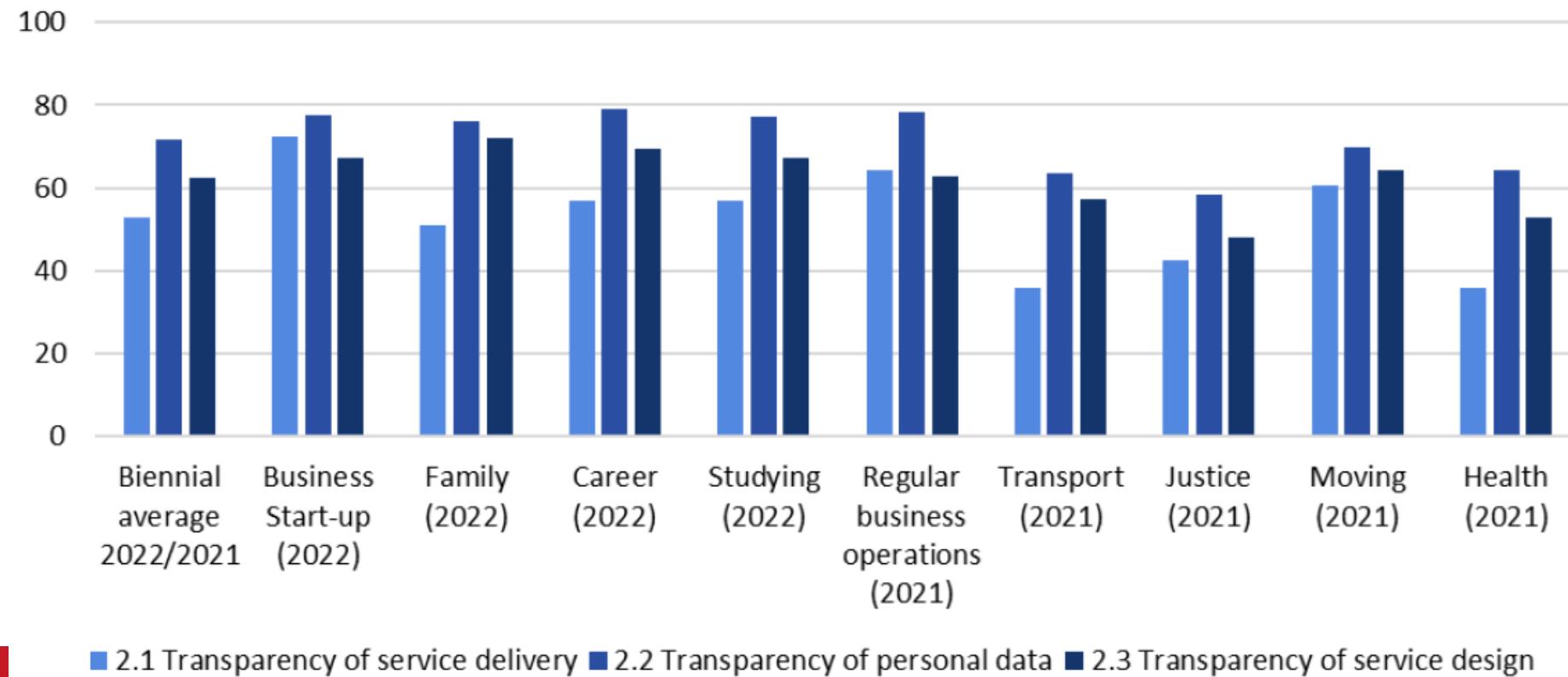
4. More information

More information can be found in Dutch at: <https://www.vlaanderen.be/digitaal-vlaanderen/onze-oplossingen/mijn-burgerprofiel/de-mobiele-app-mijn-burgerprofiel-en-uw-gemeente-app>

Main areas of measure: Transparency (1)

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

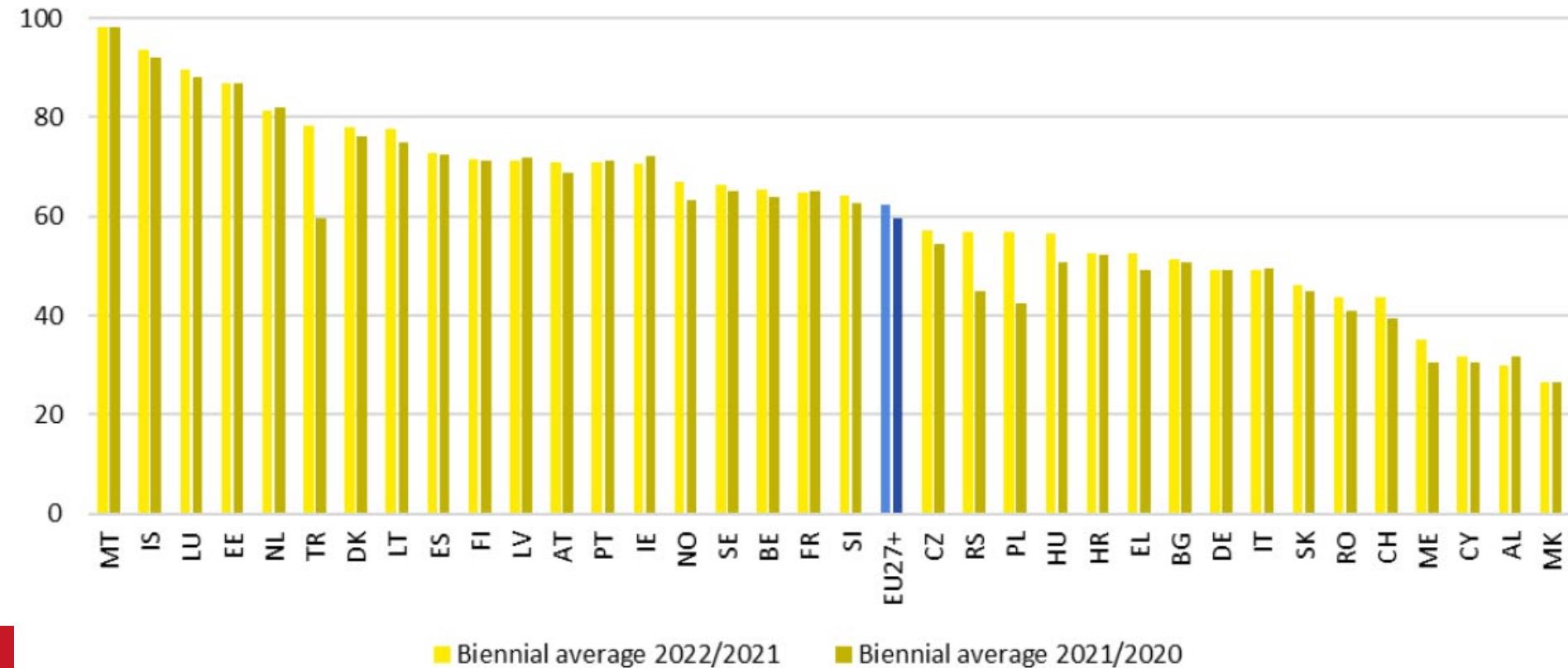
- ❖ Transparency (promoting efficiency, accountability, trust in public sector organizations) – per life event (p. 20)



Main areas of measure: Transparency (2)

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

- ❖ Transparency overall (p. 21)



Main areas of measure: Transparency of Service (3)

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

Transparency of Service Design – Good Practice example from Ireland (p. 24)

Ireland | Designing Our Public Services – Design Principles for Government in Ireland

Relevant Key Dimension(s)

User Centricity

Life event

Regular Business Operations, Moving, Transport, Health, Starting a Small Claims Procedure, Business Start-Up, Studying, Family, Career

1. Good practice description

Ireland's design principles "Designing Our Public Services", reinforces our existing design mind-set and approach and should enhance the design of our future public services in Ireland.

This is not design that is limited to aesthetic considerations – but the holistic design of service experiences & delivery, focused on the needs of people.

Designing our Public Services is an aid for public servants in continuing to put people at the forefront of service provision. These principles should serve to empower our Public Service to use powerful design tools and techniques to deliver human-centric and inclusive solutions to complex social issues.

The 10 design principles complement our existing service design approach including, the UX checklist, site guide, style guide and content guide used, for example, by gov.ie.

2. Benefits

- Increased satisfaction and engagement
- Increased accessibility
- Commonality across government
- Increased efficiencies and cost savings

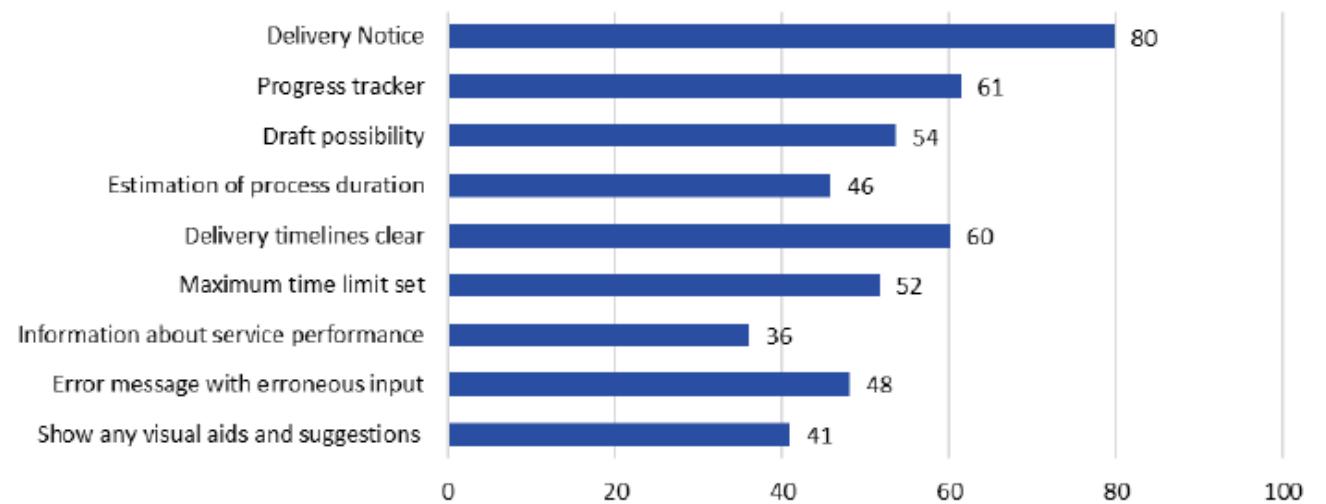
Key success factors

- Successful adaption across government departments
- Increased accessibility and satisfaction
- Increased analytics, planning and quality assurance

3. More information

- Designing Our Public Services: <https://www.ops.gov.ie/designprinciples/>
- UX checklist: <https://www.gov.ie/en/publication/efad0-digital-ux-checklist/>
- A very popular example of a content guide can be seen here: <https://www.gov.ie/en/publication/cfb5e4-how-to-create-content-in-a-crisis/>

Fig. 2.16 Score per question for Transparency of Service Delivery Indic. (p. 21)



Main areas of measure: Key enablers

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

Fig. 2.21 Key enablers per country (p. 26)

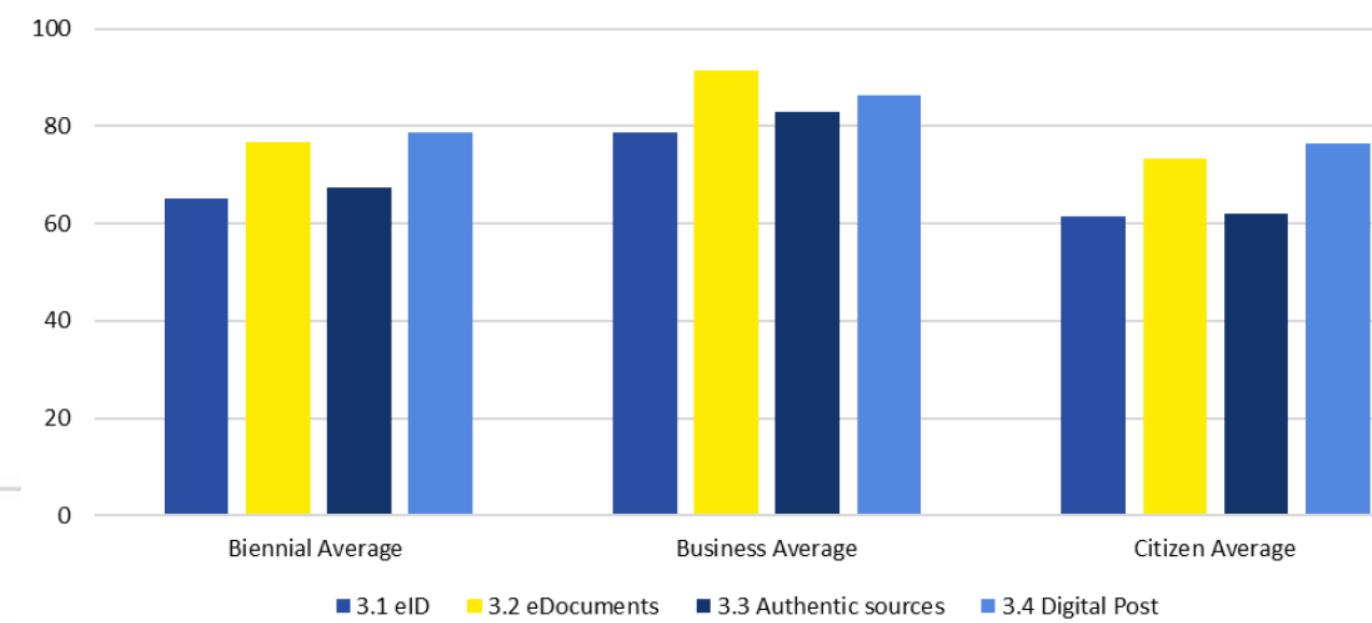
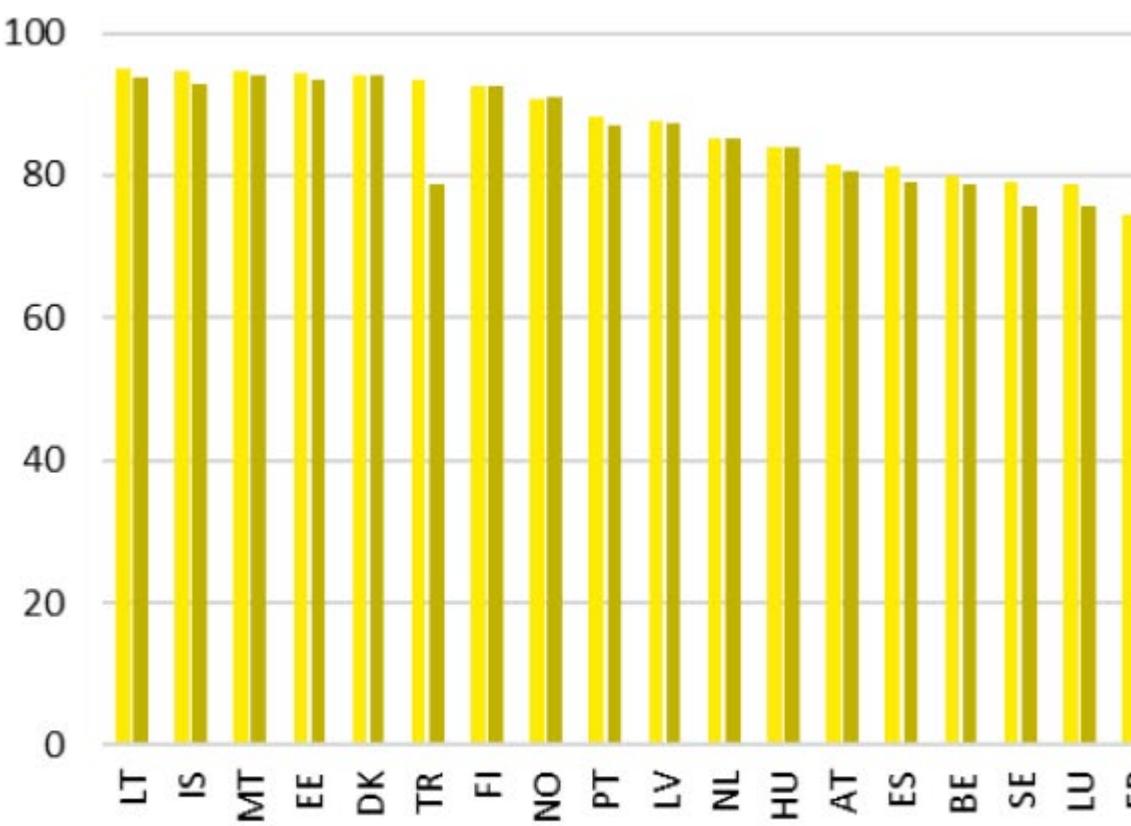


Fig. 2.20 Average for key enablers (p. 25)

Main areas of measure: Key enablers best practice example

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)

Best practice example from Greece for Digital Identity Wallet (p. 28)

Greece | Gov.gr Wallet (Digital Wallet with Digital ID, Driving License, and more documents)

Relevant Key Dimension(s)

User Centricity, Transparency, Key enablers

Life event

Regular Business Operations, Moving, Transport, Health, Starting a Small Claims Procedure, Business Start-Up, Studying, Family, Career

1. Good practice description

Gov.gr Wallet is a digital wallet app which allows citizens to issue, store, and use their digital ID and digital driving license. It also allows them to issue, store, and use the official disability card, the unemployment card, and a vehicle information card (insurance, etc) in tandem with the Athens Ring allowance card (only specific vehicles can enter downtown Athens as per environmental regulations.)

Further, Gov.gr Wallet allows the utilization of the issued cards through a consent mechanism. For instance, before a bank clerk, the citizen to verify themselves, would simply have to tell the clerk their ID number, then receive a push notification, approve the transaction, and only then, would the clerk/bank receive an official digital copy of the citizen's ID data. Another similar example is the integration with the Aegean Airlines check-in process.

2. Benefits

- Ease of use (no need to carry paper/print copies anymore)
- Streamlined issuance and use
- Domestic applicability for all possible uses of ID (travel, courts, loans, police identification, etc.)
- Almost 2 million documents issued (period: July 2022 till December 2022)
- Data ownership and control (share only when you want)

3. Key success factors

- User-centered design and experience
- Heavy use of interoperability
- Creating a "Wallet as a Platform" via the consent mechanism/integrations
- Security of transactions (everything is E2EE, OTP use, etc.)

4. More information

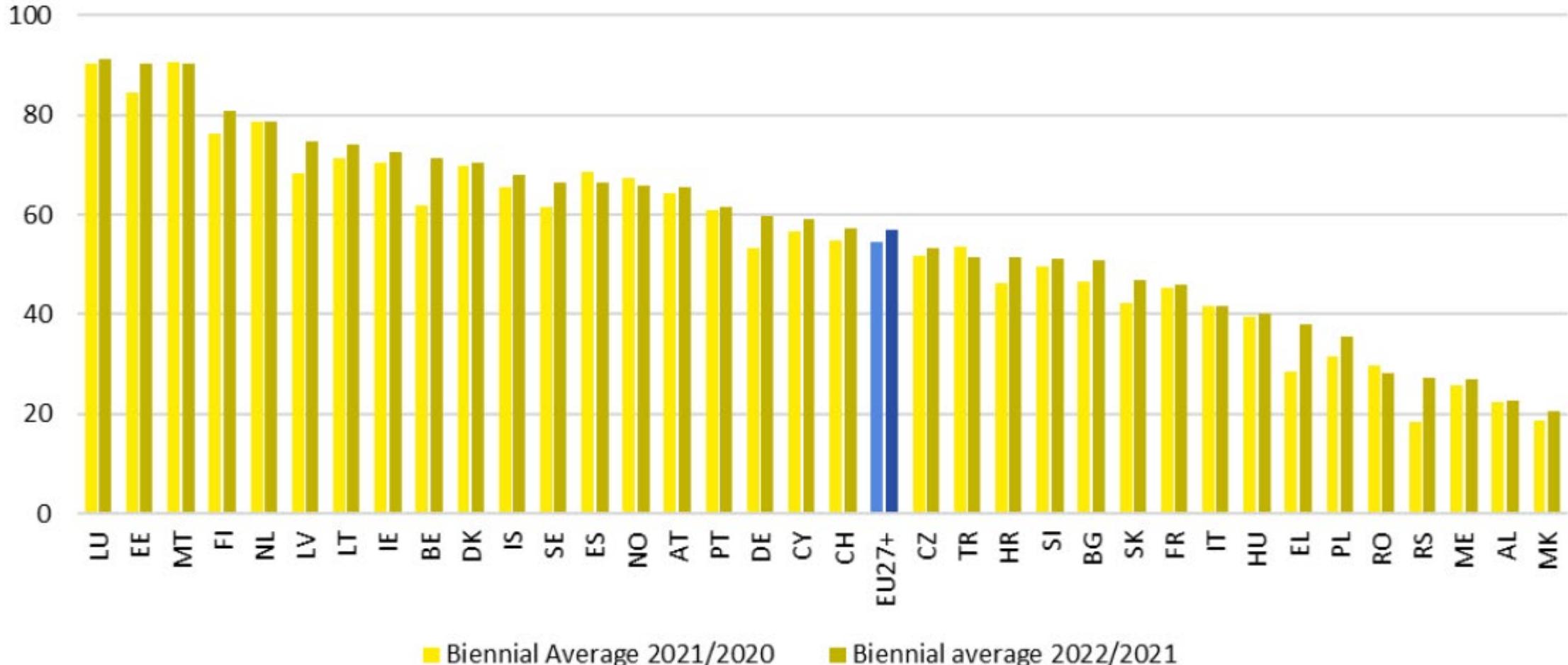
More information can be found at:

<https://wallet.gov.gr> &

https://en.about.aegeanair.com/media-center/press-releases/2023/aegean_digital_service/

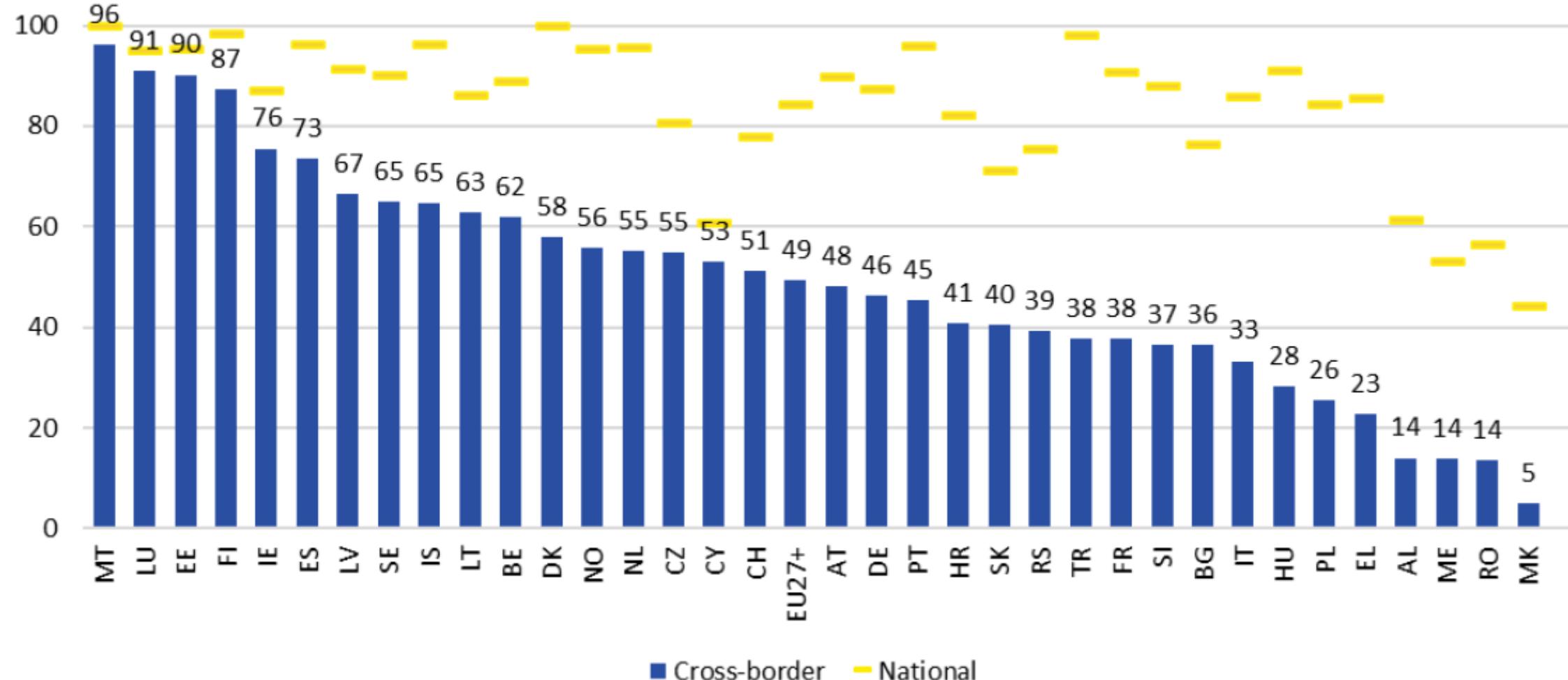
Main areas of measure: Cross-Border Services average

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)



Main areas of measure: Cross-Border Services vs. National

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report)



Main areas of measure: Cross-Border Services Best Practice

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Background report, p. 32)

Austria & Germany | Wirtschaftsserviceportal NRW

Relevant Key Dimension(s)

User Centricity, Key enablers, Cross-Border Services

Life event

Regular Business Operations, Business Start-Up

1. Good practice description

After adopting the Single Digital Gateway Regulation in 2018, the European Commission and Member States have been building the YourEurope portal. by the end of 2023 YourEurope will offer access to 21 online procedures in all EU countries, supported by the Once Only Technical System (OOTS), which ensures that authentication with eID and submitting of eDocuments is seamless cross-border.

The Business Service Portal North Rhine-Westphalia (NRW) is the central digital gateway for businesses in North Rhine-Westphalia. With the concentrated approach for "open source", standardization and development of online services in a modular system, a future-proof platform solution was created with the WSP. This system can deliver client-related application data nationwide fully digitalised. All online procedures in NRW are made available to other authorities across states and levels in a micro-service architecture according to the OOTS principle.

Since 2022, North Rhine-Westphalia has been also one of the responsible authorities for the German Register Modernization Program, which deals i.e., with the implementation of the once-only principle. In 2023 NRW became responsible for the program area dealing with the connection of German online procedures and registers to the European Once-Only-Technical System (OOTS) to fulfil the requirements of the Single-Digital-Gateway Regulation. In cross-border piloting projects with other member states, such as Austria and the Netherlands, central infrastructure components like an intermediary platform and an SDG connector are being developed and tested. It is also planned to involve other member states in this cooperation.

2. Benefits

- More than 400 business-related administrative services plus basic services, e.g., start-up assistant, for joint use and subsequent use for other authorities.
- Piloting the once-only principle for retrieving evidence using newly developed SaaS components that can be made available for subsequent use nationwide and for all administrative areas on different administrative levels
- Implementation of the requirements from the Single Digital Gateway Regulation in the business area

3. Key success factors

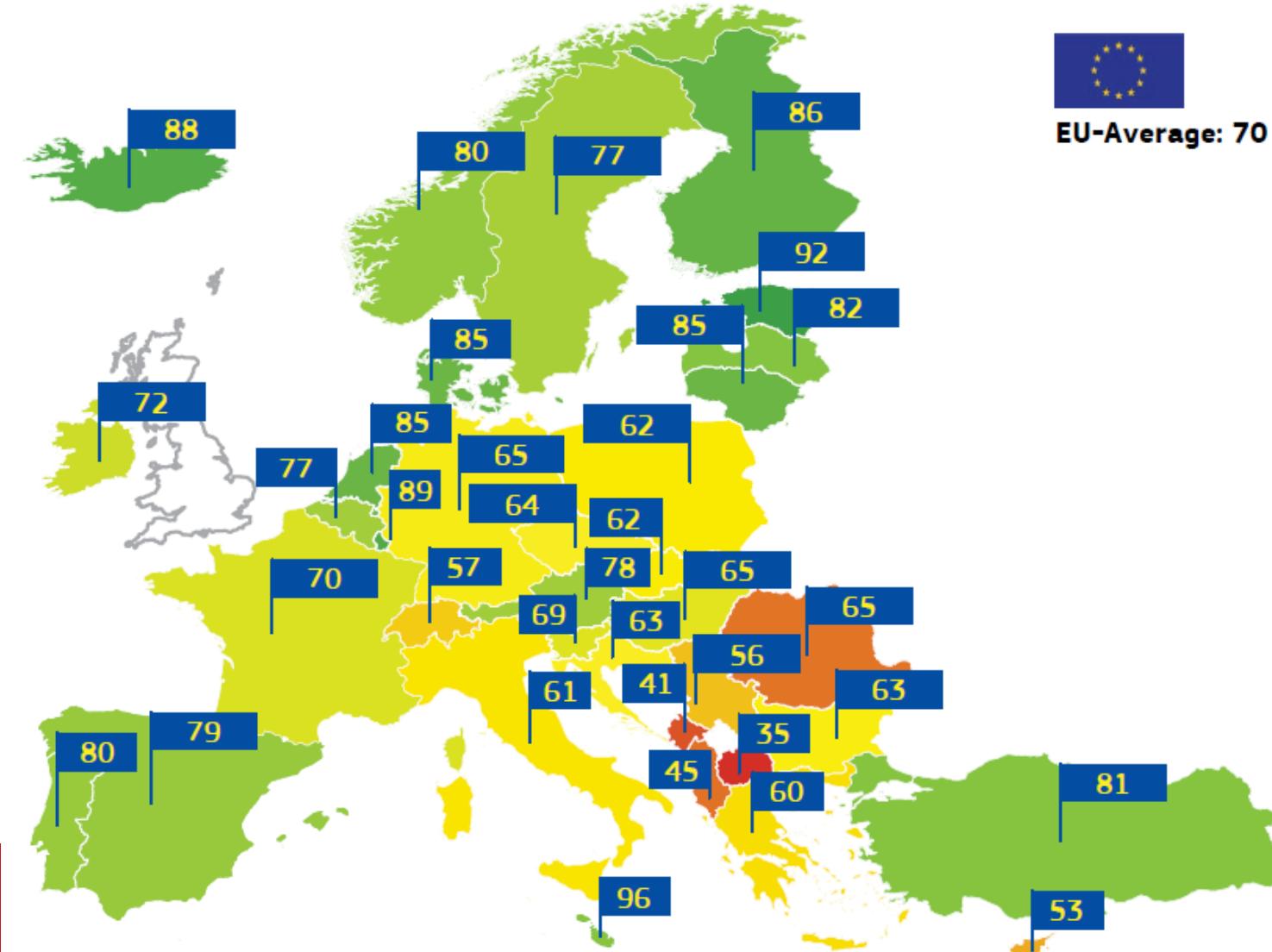
- Concretisation and parameterisation of the technical solutions through an agile approach
- Implementation of full digitalised processes both in the frontend and via standardized interfaces specialised processes; Application data are standardized as XÖV modules
- Technical parameterisation/client capability through its microservice architecture
- Factory based process approach
- Sustainable legal framework through WiPG NRW
- Development of online services as MVP in so-called digitisation lines in an modular system

4. More information

More information can be found at: <https://service.wirtschaft.nrw/>

Overall picture of performance per country 2023

<https://digital-strategy.ec.europa.eu/en/library/egovernment-benchmark-2023> (Insight report, p. 6)



<https://www.egovernment-monitor.de/>

➤ E-Government Monitor of Initiative D21



E-Government Monitor of Initiative D21

- ❖ Since 2010 annual survey of citizens
 - Germany
 - Austria
 - Switzerland
- ❖ Measuring the perception of citizens on digital public services along a set of criteria
 - In 2022: (1) Knowing about and usage of public services; (2) User satisfaction; (3) Trust and capability in performance; (4) Barriers
 - In 2023: (1) Perception of Digitalization; (2) Trust in digital technologies; (3) Perception in Government; (4) Perception with regard to Digitalization of Government
 - In 2024: (1) Performance and Trust; (2) Drivers of E-Government Usage; (3) Acceptance of AI; (4) Barriers Using E-Government

<https://www.egovernment-monitor.de/>

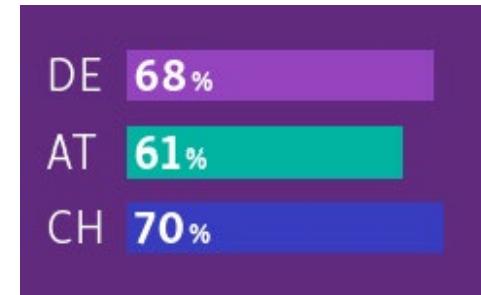
Methodical setup of the eGovernment MONITOR 2023 and 2024

<https://www.e-government-monitor.de/>

- ❖ Overall: Persons in private households in Austria, Germany and Switzerland above the age of 18, who use the Internet for private purposes
- ❖ Sampling: Online panel; data weighted along central demographic aspects (age, sex, formal education)
- ❖ Method for data collection: Online survey [computer supported web interview (CAWI)]
- ❖ Selected interviews
 - In 2023: Executing 8.034 interviews in Germany (DE), 1.003 interviews in Austria (AT) and 1.001 in Switzerland (CH)
 - In 2024: Executing 8108 interviews in Germany (DE); 1005 interviews in Austria (AT) and 1007 in Switzerland (CH)
- ❖ Representative survey: results are representative for the overall population

Some results 2024

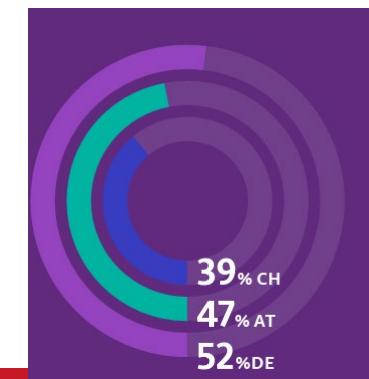
Performance and Trust: I expect the government to use new tech in a smart way to make the administration more efficient.



Drivers of E-Government Usage



Acceptance of AI



I'd be cool with using AI in any case.

The use of AI would be acceptable to me under certain conditions.

I would not accept the use of AI under any circumstances.

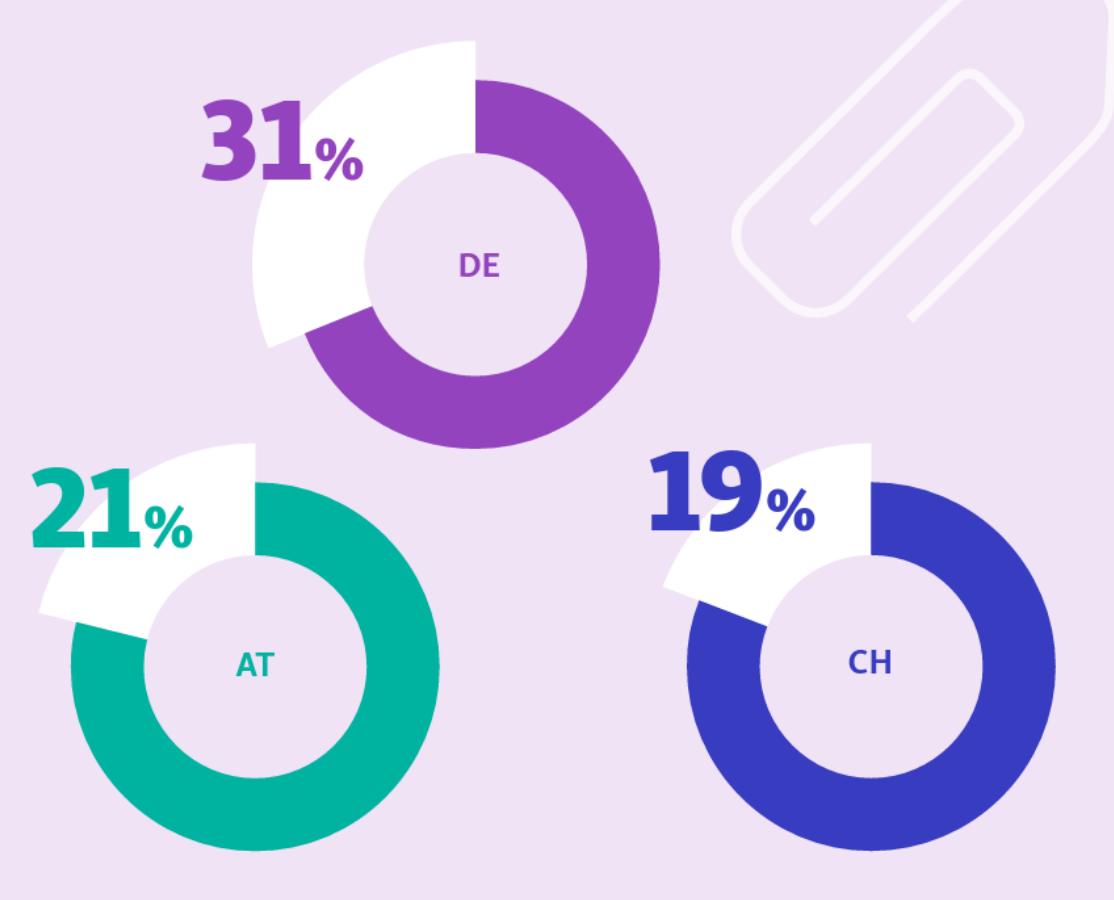
Some results 2024: Usage of public services

<https://www.e-government-monitor.de/>

Digital divide

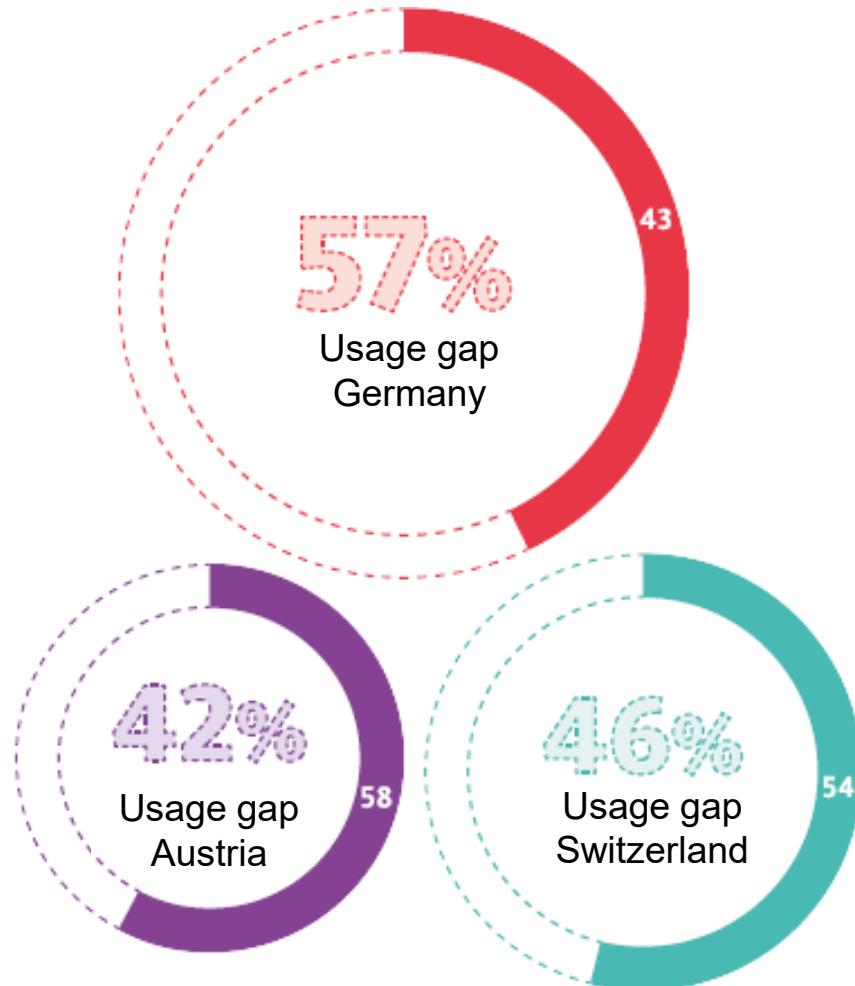
► Abb. 06: Die Digitale Nutzungslücke (12 Monate)

FRAGE: Hatten Sie in den letzten 12 Monaten ein Anliegen, für das Sie ein Amt oder eine Behörde brauchten? Haben Sie dies teilweise oder vollständig online erledigt? | BASIS: Alle Befragten mit allgemeinem Bedarf an Behördendiensten in den letzten 12 Monaten – DE (n=5.922); AT (n=724); CH (n=705); Kein Zeitvergleich wegen neuer Fragestellung (siehe Info-Kasten S. 25)



Some results 2022: Major online services used in Germany & Usage gap in AT, DE, CH

<https://www.e-government-monitor.de/>



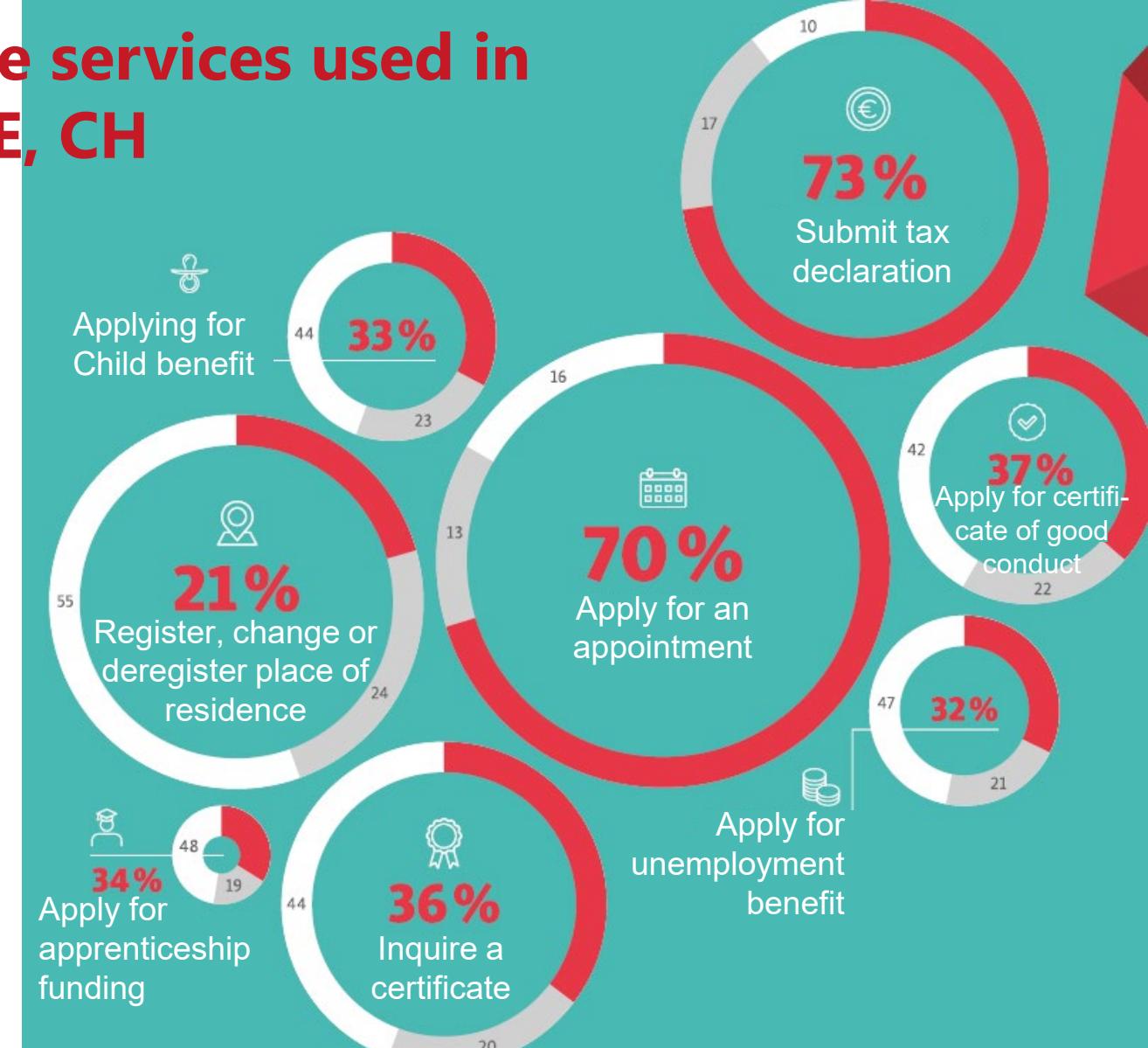
Su

Online access is being used
Offline access is being used (digital usage gap)

Prof.

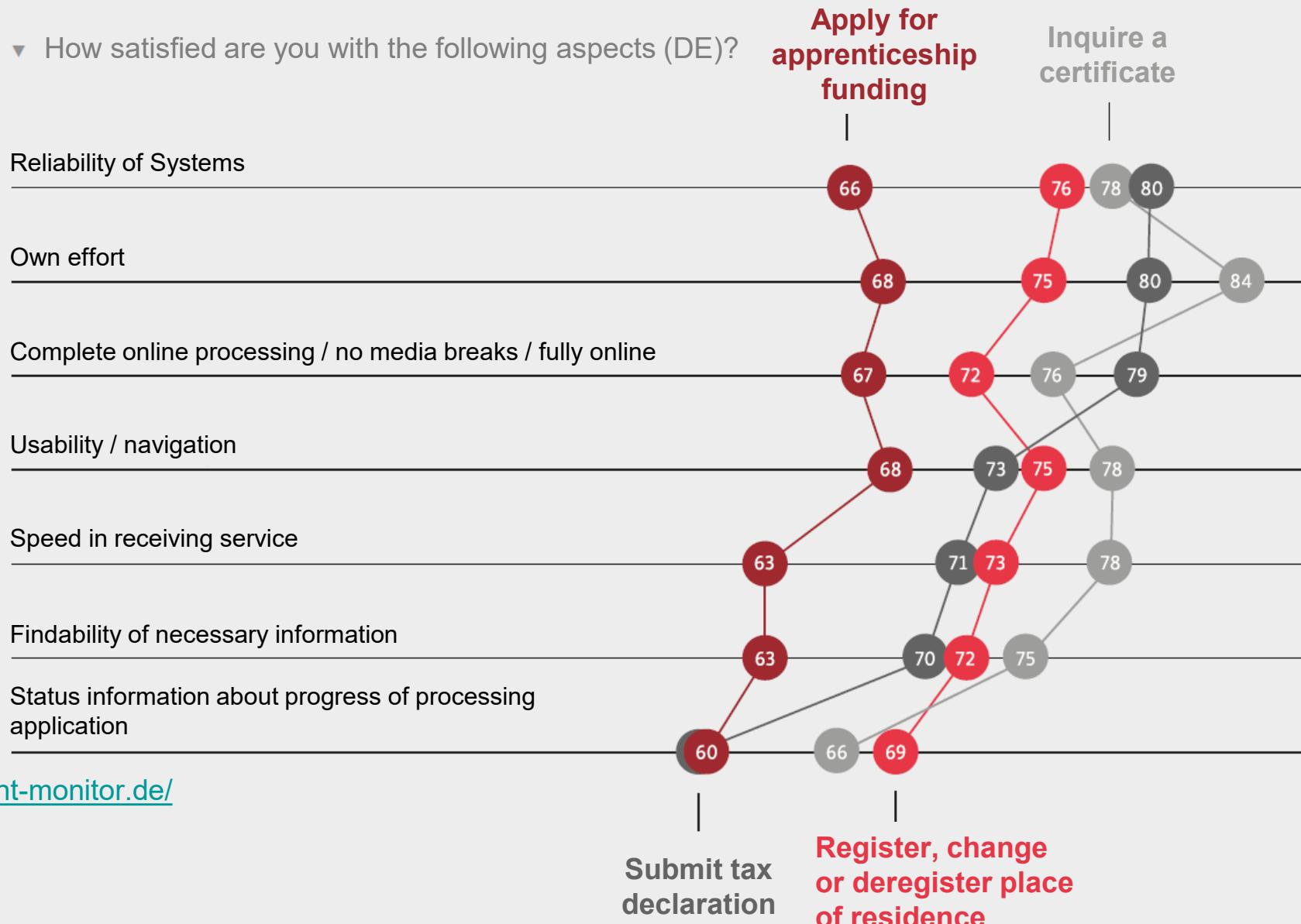
10

- Used online
- Not used online, but aware of online access
- Not used online and not aware about online access



User satisfaction along particular services and aspects in 2022

- ▼ How satisfied are you with the following aspects (DE)?



User satisfaction along particular service and aspects in 2024

Question: How satisfied are you with the following aspects (DE)?

<https://www.e-government-monitor.de/>



Main barriers in 2022

<https://www.e-government-monitor.de/>

USAGE

Complicated procedure / forms



The service I need is not offered online



Lacking full online processing



OFFER

Intransparent structure / you can't find what you are looking for



The user support of authorities is not satisfactory



I am concerned with data privacy



PERSONAL REASONS

I prefer personal contact



I fear negative consequences, if I do not enter the data correctly



Citizens' perception of government capabilities in 2022



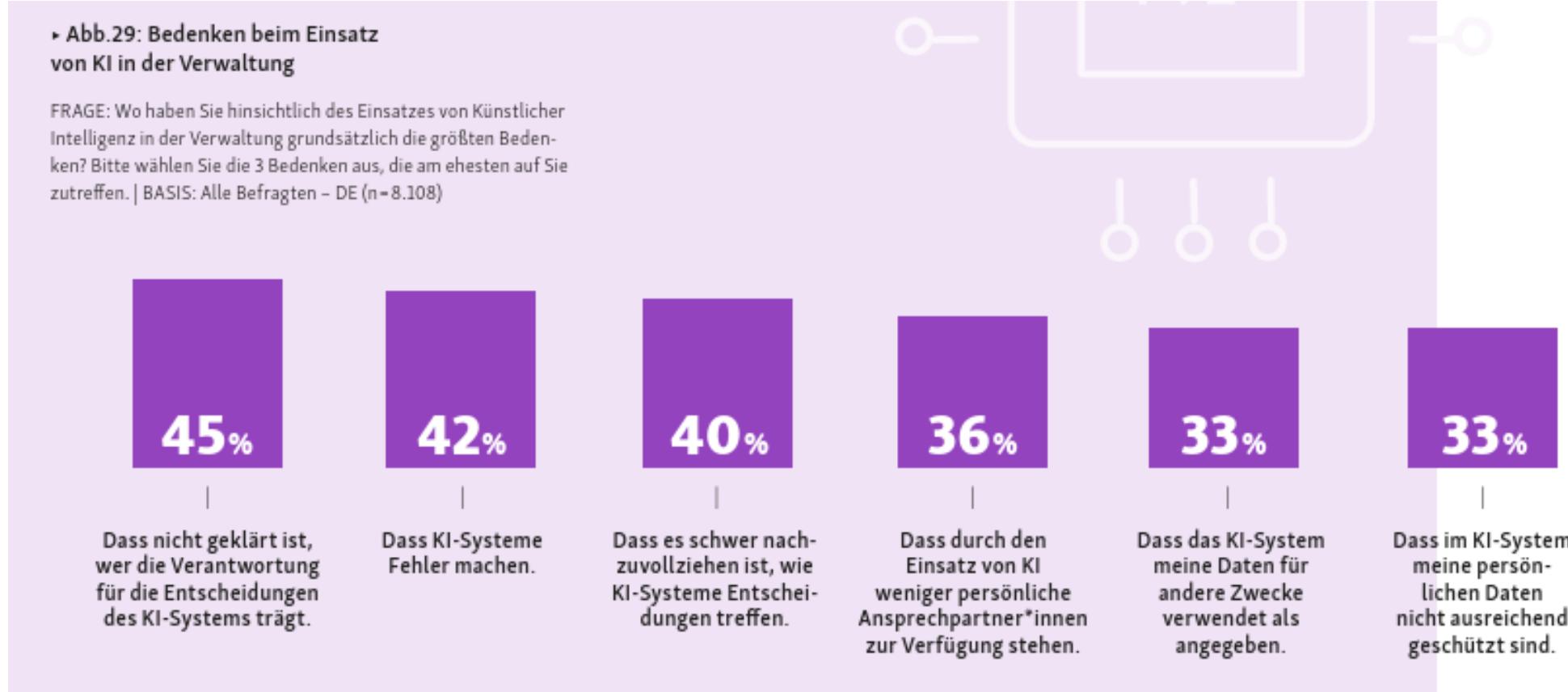
30%

agreement that „The State simplifies my life.“ with persons that are highly satisfied with E-Government (Germany)

Citizens' concerns of AI use in public service provisioning in 2024

► Abb.29: Bedenken beim Einsatz von KI in der Verwaltung

FRAGE: Wo haben Sie hinsichtlich des Einsatzes von Künstlicher Intelligenz in der Verwaltung grundsätzlich die größten Bedenken? Bitte wählen Sie die 3 Bedenken aus, die am ehesten auf Sie zutreffen. | BASIS: Alle Befragten – DE (n = 8.108)





eGOVERNMENT COMPETITION

Competition for the digitalisation of public administration

Under the patrony of the
Federal Minister of the Interior and Community, Alexander Dobrindt (since
06.05.2025, before Nancy Faeser)

Overview

<http://www.e-government-wettbewerb.de/>

- ❖ Carried out by BearingPoint GmbH and Cisco Deutschland
- ❖ Under patrony of the federal Ministry of the Interior and Community
- ❖ In 2025 for the 24th time
- ❖ Categories in 2024
 - (1) Boosting digitalization through AI and modern infrastructure
 - (2) End-to-end digital services – newly designed
 - (3) Transformation of public administration by organisational and change management
 - (4) Sustainability through digitalization and in IT
- ❖ Categories in 2025
 - (1) Boosting digitalization through AI and modern infrastructure
 - (2) End-to-end digital services – newly designed
 - (3) Transformation of public administration by organisational and change management
 - (4) Sustainability through digitalization and in IT

Winners of the 23rd competition (1)

<https://www.e-government-wettbewerb.de/gewinner/gewinner-2023.html>



(1) Boosting digitalization through AI and modern infrastructure

Position	Contribution	Presentation	Video
1. Platz	Deutsche Rentenversicherung Bund: Stabsstelle Digitalstrategie und Digitale Transformation „KIRA“		
2. Platz	Bundesdruckerei GmbH „PLAIN - Plattform Analysis and Information System“		
2. Platz	Informationstechnikzentrum Bund „KIPITZ“		
3. Platz	Landeshauptstadt München „MUCGPT“		

(2) End-to-end digital services – newly designed

1. Platz	Parlamentsdienste des eidgenössischen Parlaments „CURIplus (Digitalisierung des Schweizer Ratsbetriebs)“		
2. Platz	Amt für IT und Digitalisierung Freie und Hansestadt Hamburg – Senatskanzlei „eWA OzG-Umsetzungsprojekt für die elektronische Wohnsitzanmeldung“		
3. Platz	Bundesministerium für Digitales und Verkehr „Die Beschäftigten App „PRIMA“ (Plattform für Ressourcen, Informationen, Management und Austausch)“		
3. Platz	Die Autobahn GmbH des Bundes „GST.Autobahn - Digitalisierung des Prüfprozesses für Großraum-/Schwertransporte (GST)“		

Winners of the 22nd competition (2)

<https://www.e-government-wettbewerb.de/gewinner/gewinner-2023.html>

(3) Transformation of public administration by organisational and change management

1. Platz Bundesministerium für Finanzen, Wien
„Digitale Kompetenzoffensive (DKO)“
1. Platz Bundesanstalt für Immobilienaufgaben
„Transformation der BlmA durch eine umfassende Prozessdigitalisierung am Beispiel der elektronischen Aktenverarbeitung und der Schaffung einer modernen Arbeitsumgebung“
2. Platz Bundesministerium des Innern und für Heimat
„UPO – Unterstützung bei der OZG-Projektorganisation in den Bundesbehörden“
3. Platz IT-Systemhaus der Bundesagentur für Arbeit
„UPGRADE wir.gestalten.gemeinsam“

(5) Social Relevance

1. Platz Bundesministerium des Innern und für Heimat
„Digitalisierungsplattform für ausländische Fachkräfte“
2. Platz Bundesagentur für Arbeit
„Elektronische Arbeitsmarktzulassung – EAMZ“
3. Platz Johanniter-Unfall-Hilfe e.V.
„Mobile Helper – Die sinnvolle Ergänzung im Bevölkerungsschutz“
3. Platz Bundesamt für Migration und Flüchtlinge
„Assistenzsystem für Sicherheitsmeldungen (ASS)“

(4) Sustainability through digitalization and in IT

1. Platz LEA LandesEnergieAgentur GmbH & Hessisches Ministerium für Wirtschaft, Energie, Verkehr, Wohnen und ländlichen Raum
„Wärmeatlas Hessen“
1. Platz Stadt Hagen & ENERVIE Service GmbH
„klimakommune.digital“
2. Platz Bundesanstalt für den Digitalfunk der Behörden und Organisationen mit Sicherheitsaufgaben
„IPv6-Programm des Bundes“

Winner voted by public online voting in 2024

1. Platz Deutsche Rentenversicherung Bund - Stabsstelle Digitalstrategie und Digitale Transformation
„KIRA (Künstliche Intelligenz für Risikoorientierte Arbeitgeberprüfungen)“

Jury members of the competition 2025

<https://www.e-government-wettbewerb.de/jury/die-jury.html>



Stephan Augsten,
Redakteur eGovernment und
Healthcare Digital, eGovernment
Computing



Franz-Reinhard Habbel,
Publizist und Autor,
ehemals Sprecher des DSGB
und Gründer Innovators Club



Marcel Kessler,
Leiter Unterstützung &
Programmkoordination,
Digitale Verwaltung Schweiz



Prof. Dr. Dagmar Lück-Schneider,
Fachgebiet Verwaltungsinformatik,
HWR Berlin
©Katharina Rodeke



Prof. Dr. Peter Parycek,
Mitglied im Digitalrat der Deutschen
Bundesregierung, Leitung
Kompetenzzentrum ÖFIT
©DUK, Andrea Reischer



Matthias Punz,
Teamleiter SZ Dossier Digitalwende,
Süddeutsche Zeitung



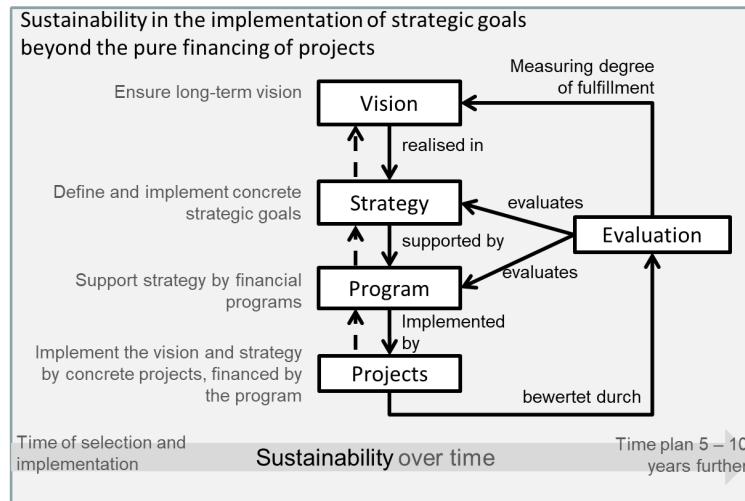
Martin Szegrad,
Chefredakteur „Telekom & IT Report“,
„Energie Report“, Report Verlag
©Milena Krobath



Prof. Dr. Maria Wimmer,
Fachgebiet Wirtschafts- und
Verwaltungsinformatik, Universität
Koblenz-Landau

Competition a motivator for e-government developments

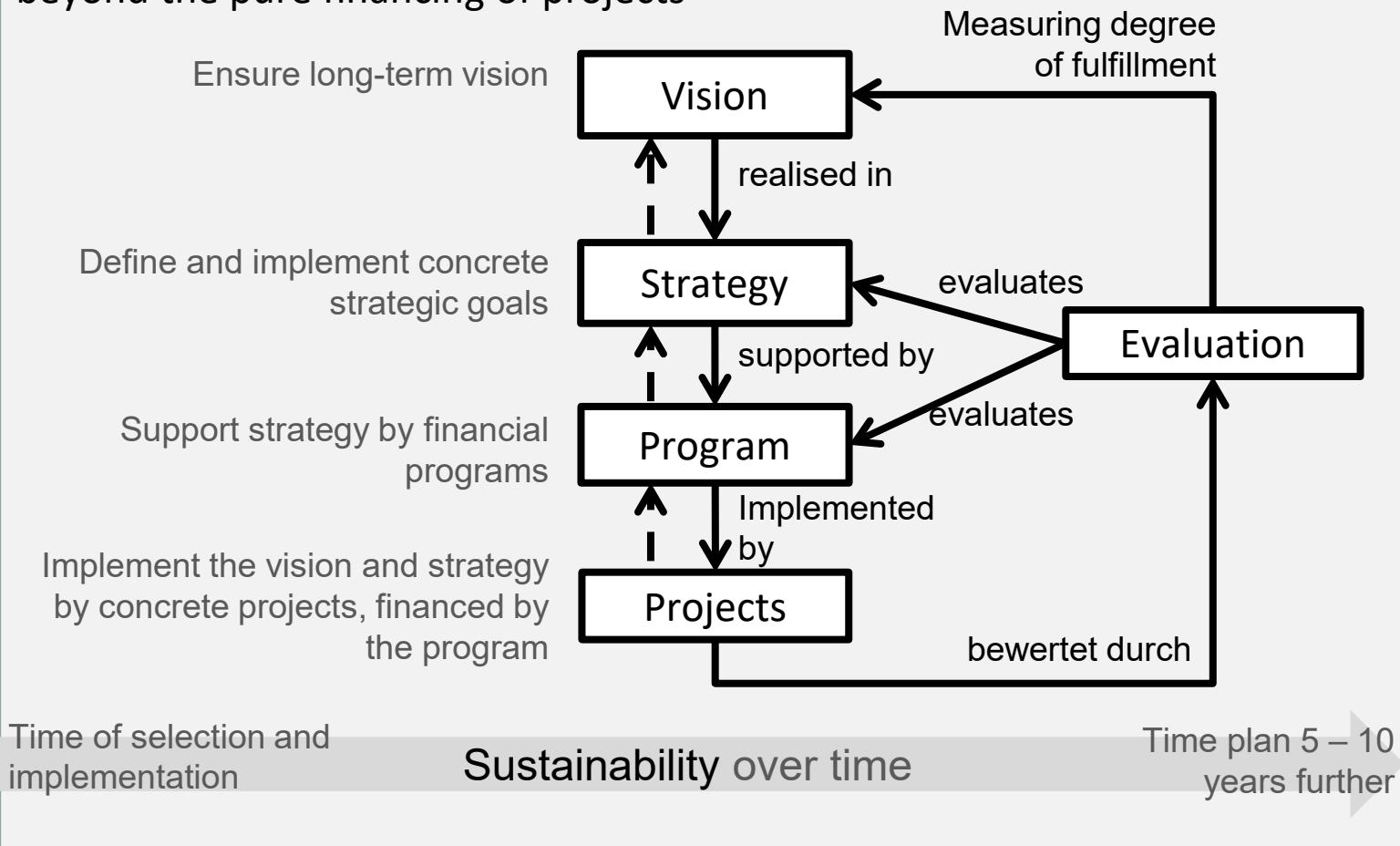
- ❖ Assessment and comparison of best practice solutions – with annually changing foci
- ❖ Learning from others
- ❖ Visibility of excellent solutions



➤ Scientific concepts to evaluation of the implementation of e-government

Overarching framework for e-government developments

Sustainability in the implementation of strategic goals
beyond the pure financing of projects



Legend:

Activity in the framework

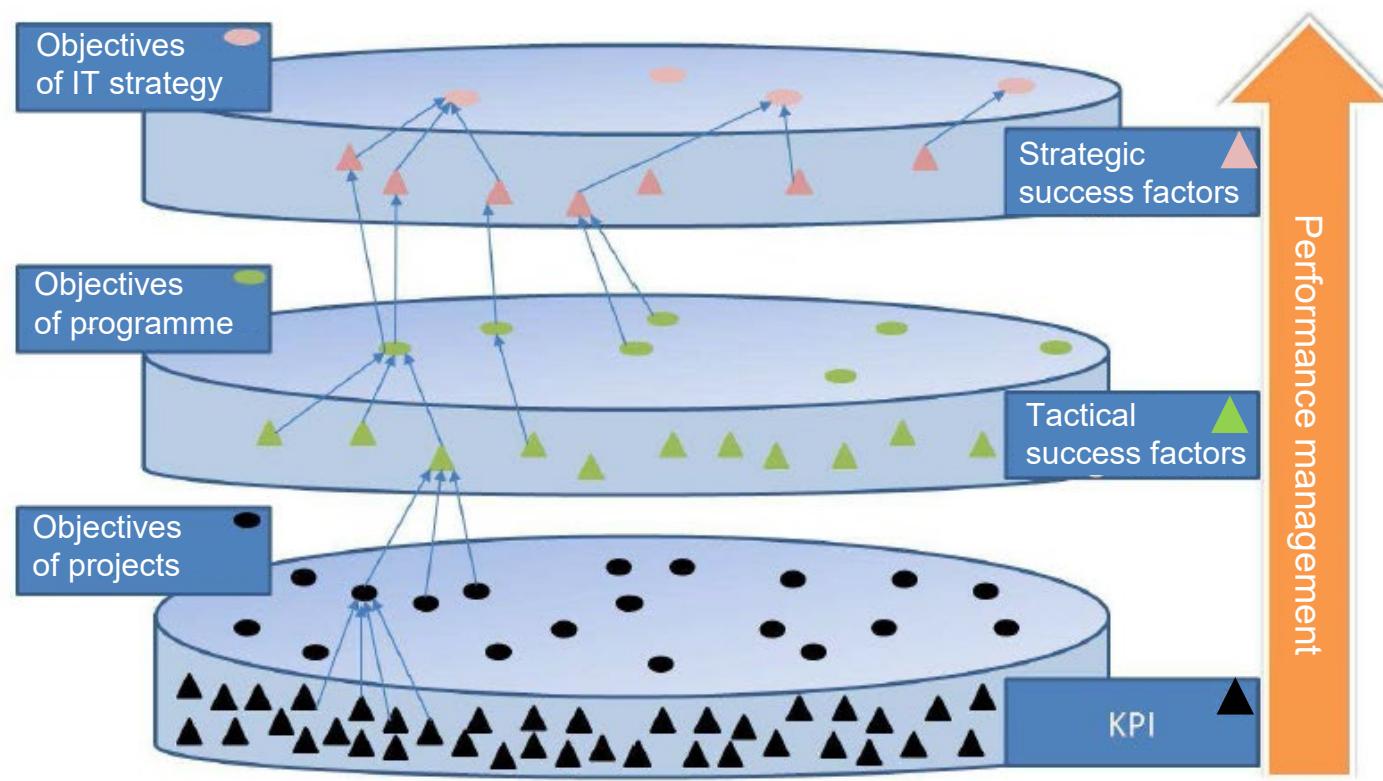
Activity flow in the framework

Feedback and assessment of goals and contribution between neighboring activities

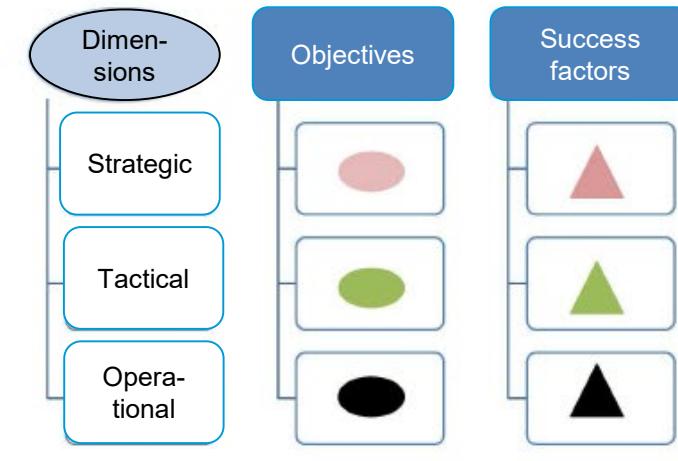
(Wimmer, M.A. (2002). A European Perspective Towards Online One-stop Government: The eGOV Project. *Electronic Commerce Research and Applications* 1(1), 92–103;
 Mkude, C. G., Wimmer, M.A. (2013). Strategic Framework for Designing E-Government in Developing Countries. In Proceedings of EGOV 2013, LNCS 8074, pp. 148–162)

Framework for evaluation by S. Wolf (1)

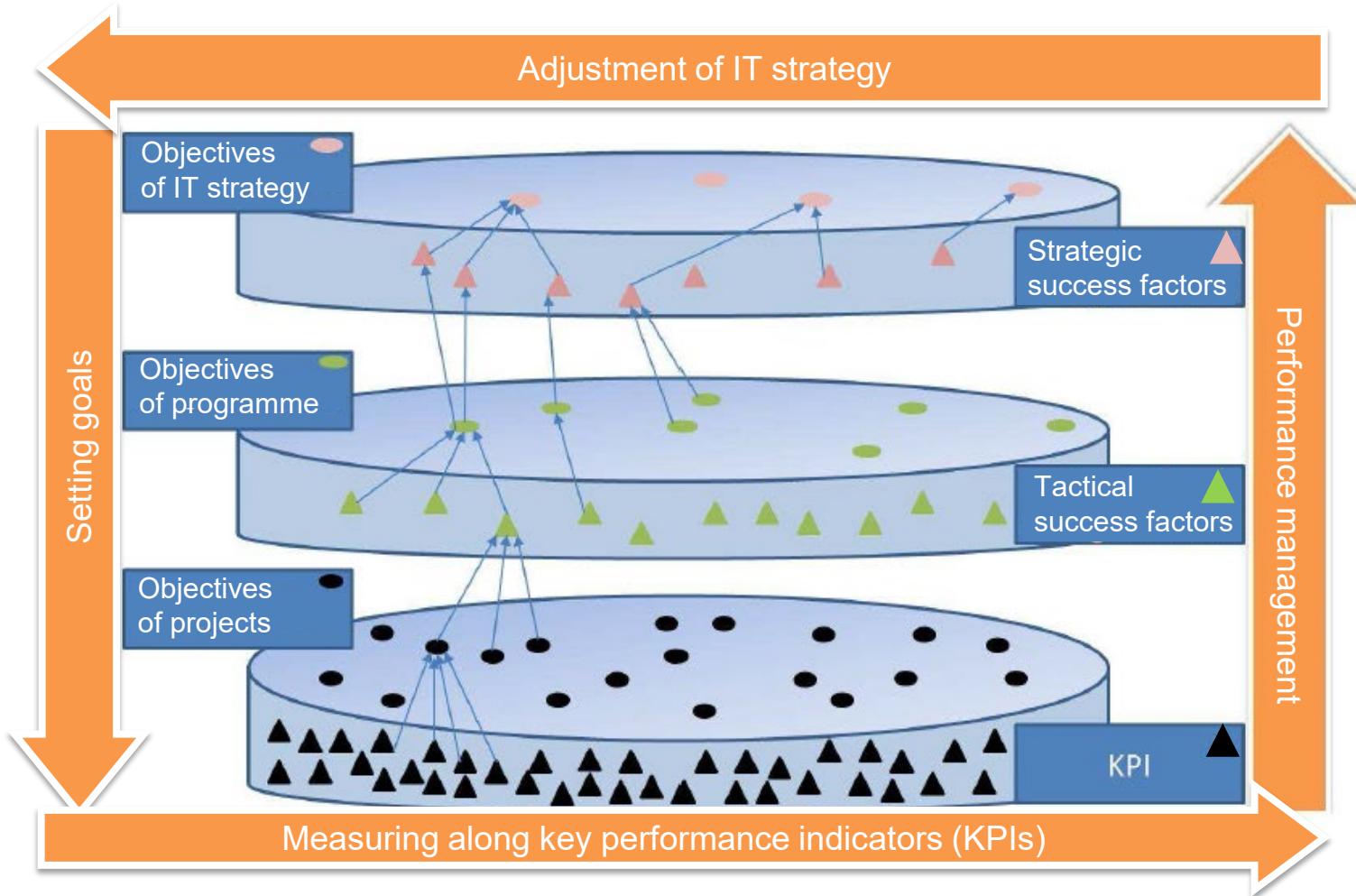
S. Wolf: Erstellung eines Kennzahlensystems zur nachhaltigen Steuerung von Transformationsprogrammen für IT-Organisationen, Masterarbeit, Universität Koblenz-Landau, 2010



Legend



Framework for evaluation by S. Wolf (2)



S. Wolf: Erstellung eines Kennzahlensystems zur nachhaltigen Steuerung von Transformationsprogrammen für IT-Organisationen, Masterarbeit, Universität Koblenz-Landau, 2010

➤ Thank you for your attention and good success
with the module!

... your questions!