

欧州における デジタルガバメント推進方法

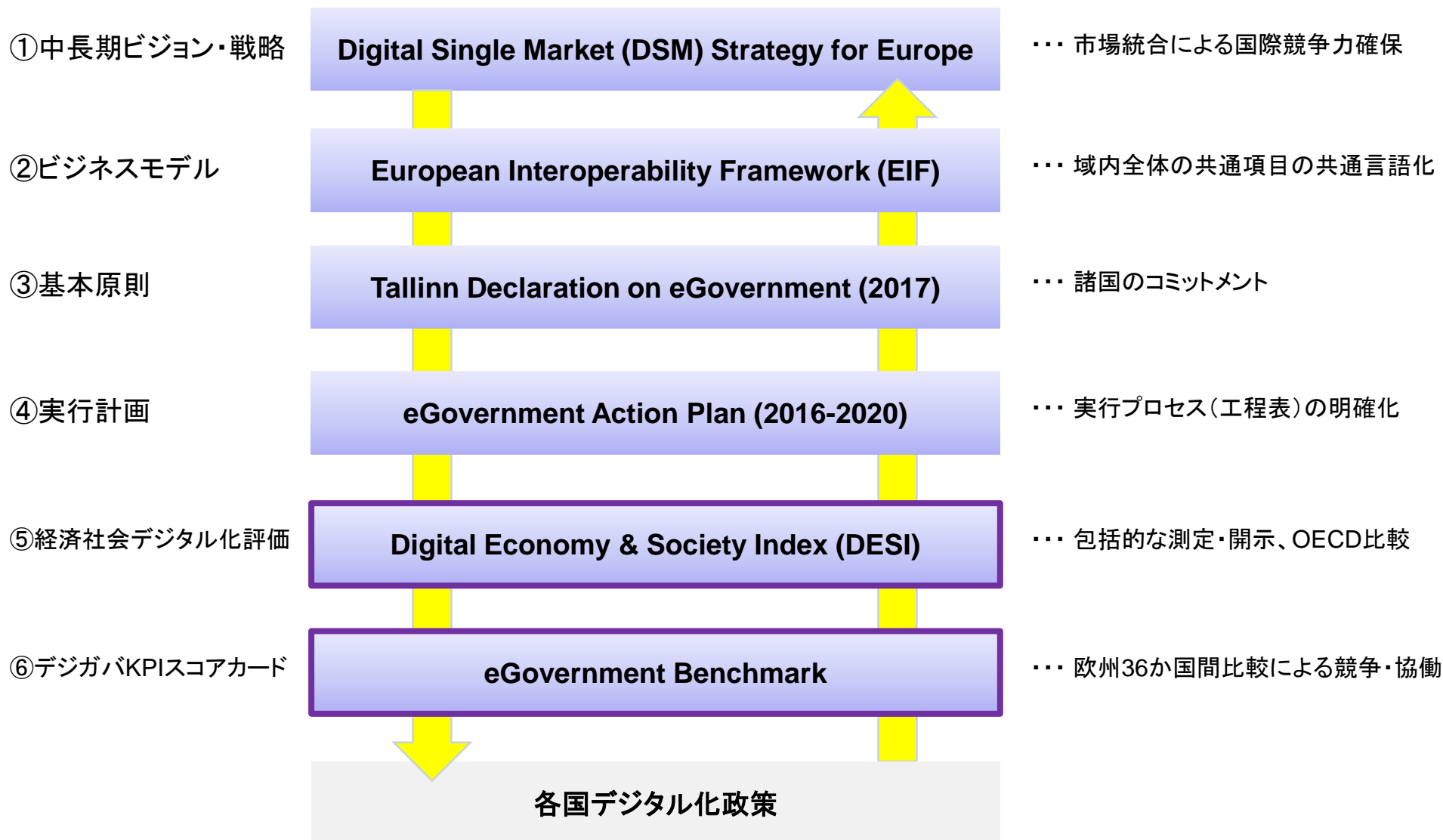
2020年3月17日

専務執行役員 南雲岳彦

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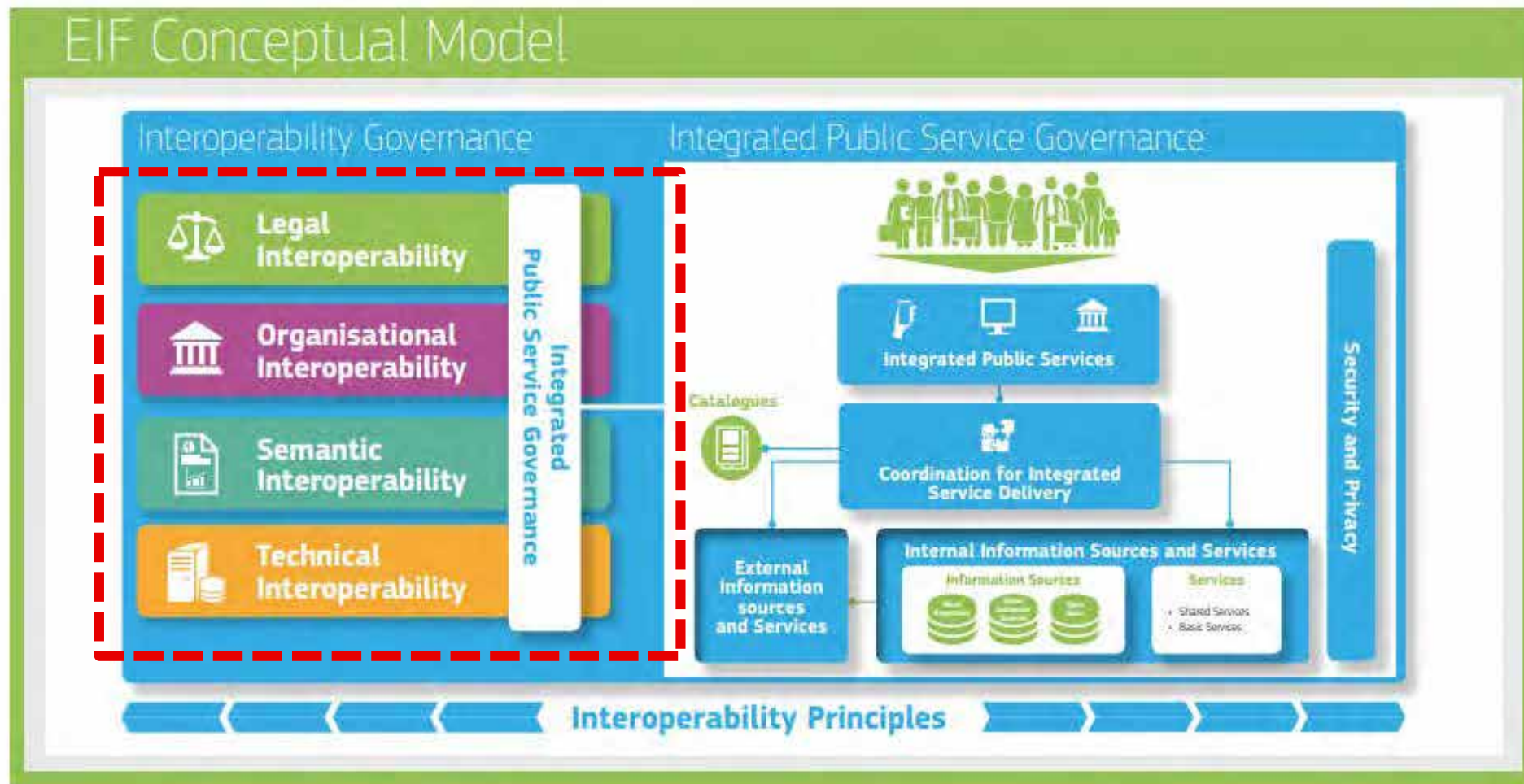
1. 欧州デジタルガバメント政策の全体像
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欧州デジタルガバメント政策の全体像： 政策全体が統合化されている



EIFは、DSM確立に不可欠な4つの相互運用化領域を明示、共通言語化している

- 相互運用性は ①法規制、②組織、③セマンティック、④テクノロジーの4領域から構成されている。



成熟度モデル： 欧州は、単なるICT化ではなく、データ利活用化を主眼におく

EU諸国のうち、フィンランド、エストニア、UK等の先進国家は、現在、略レベル3の水準。今後はレベル5が目標。

	1. eGovernment	2. Open Government	3. Data-Centric Government	4. Fully Transformed Government	5. Smart Government
Drivers	Compliance, efficiency	Transparency and openness	Citizen value	Insight-driven transformation	Self-defining
Service model	Reactive	Intermediated	Proactive	Embedded	Predictive
Digital System	IT-centric	Citizen-centric	Data-centric	Thing-Centric	Ecosystem-centric
Ecosystem and users	Government-centric	Service co-creation	Aware	Engaged	Evolving
Technology focus	Service Oriented Architecture	API enabled architecture	Open any data	Things as data	Intelligence
Leadership	Technology	Data	Business	Information	Innovation
Key metrics	% Services online	Number of open datasets	Number of data-driven services	% of new and retired services	Number of new delivery models

欧州は、「デジタル単一市場戦略」に加え、データ戦略およびAI戦略も発表。次世代への進化を続けている。

- “A European Strategy for Data” 2020年2月19日付Communication
- “On Artificial Intelligence – A European Approach to Excellence and Trust” (2020年2月19日付 White Paper)

アクションプランは、DSM戦略実現にむけた優先領域と基本原則を反映している

Europe's vision on eGovernment: “the overall vision remains to strive to be open, efficient and inclusive, providing borderless, interoperable, personalized, user-friendly, end-to-end digital public services to all citizens and businesses – at all levels of public administration.

【アクションプランにおける優先領域3本柱】

【基本的な考え方(タリン宣言でも再確認)】

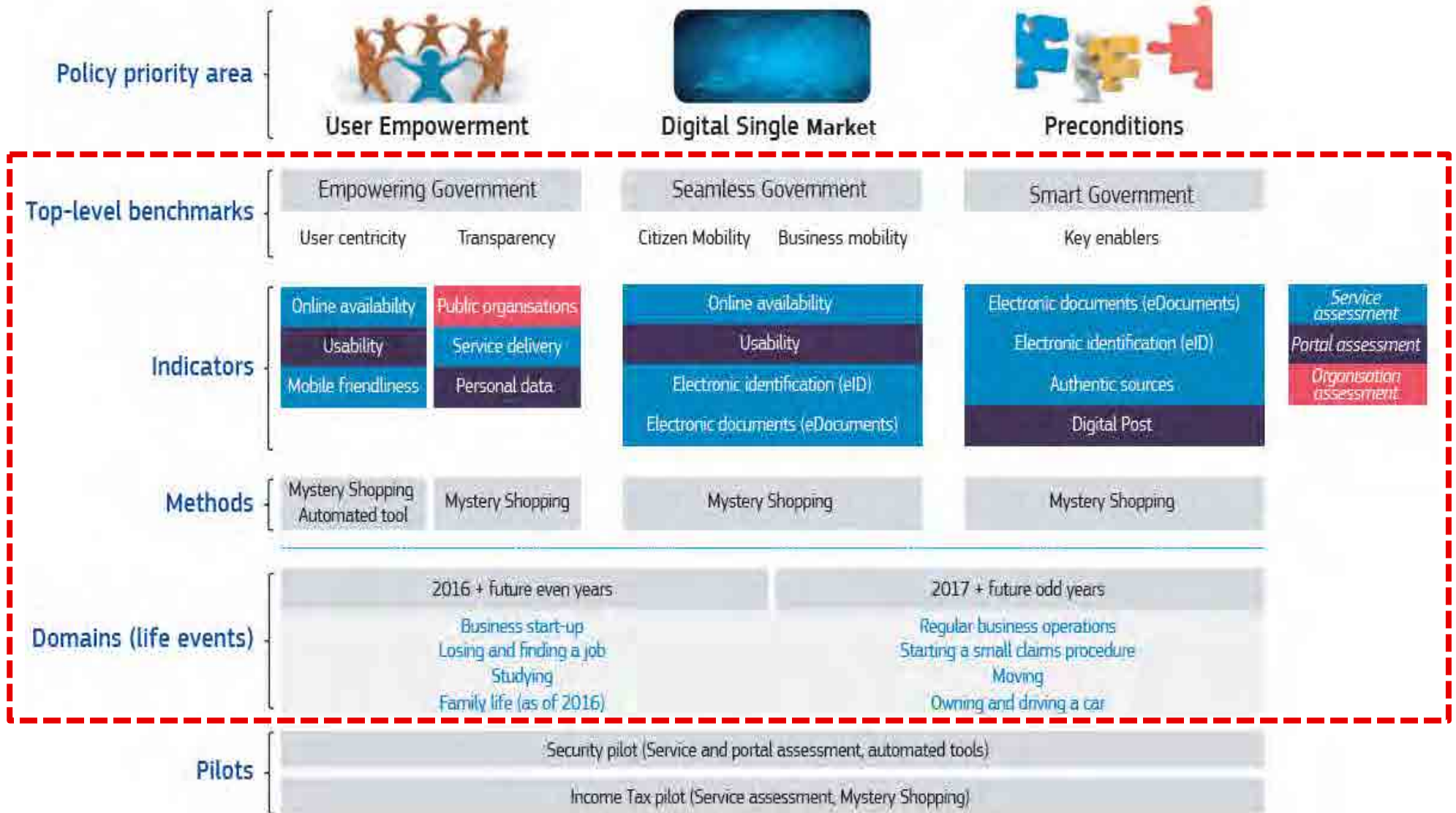


(出典) 欧州委員会 <https://ec.europa.eu/digital-single-market/en/node/81744>

- ① Digital by default
- ② Once Only
- ③ Inclusiveness and Accessibility
- ④ Openness and Transparency
- ⑤ Cross-border by default
- ⑥ Interoperability by default
- ⑦ Trustworthiness and Security



eGovernment Benchmarkは、政策アーキテクチャーに整合的に構築されている



eGovernment Benchmarkの基本的な仕組み

- ① 「DSM戦略の4つの優先ベンチマーク項目」 × 「市民・ビジネスの8つボリュームゾーン」 で絞り込み。
- ② ユーザー視点 (User Journey) で、デジタル化に関する評価をEnd-to-Endで行う。
- ③ デジタル化の推進要因 (Enabler) も含めた評価を実施し、短期的な視点のみならず、中長期的な基盤整備も評価。
- ④ ミステリーショッパーの活用で、評価の客観性を担保。
- ⑤ 「デジタル化率」(Digitalization) × 「デジタル活用率」 (Penetration) の2軸の組合せで形式評価を排除。
- ⑥ 一覧性の高い統一フォーマットのスコアカードで各国評価。国別レポートを開示・比較を通じて競争と協働を促進。
- ⑦ 「絶対評価指標」 (Absolute Indicators) に加え、「相対評価指標」(Relative Indicators) にて各国事情も勘案。
- ⑧ DESIとも整合的に関連付け。
- ⑨ DESIインターナショナル版で、EU域外 (OECD諸国) との比較を行い、よりグローバルな競争状況を把握。

eGovernment Benchmarkのフォーカス領域の選定方法

【DSM戦略の4つの優先ベンチマーク項目】

優先ベンチマーク項目	KPI設定事項
User-Centricity	Online Availability
	Usability
	Mobile Friendliness
Transparency	Service Delivery
	Public Organizations
	Personal Data
Citizen Cross Border Mobility	Online Availability
	Usability
	eDocuments
Business Cross Border Mobility	Online Availability
	Usability
	eDocuments
Key Enablers	eID
	eDocuments
	Authentic Sources
	Digital Post



【市民・ビジネスの8つボリュームゾーン】

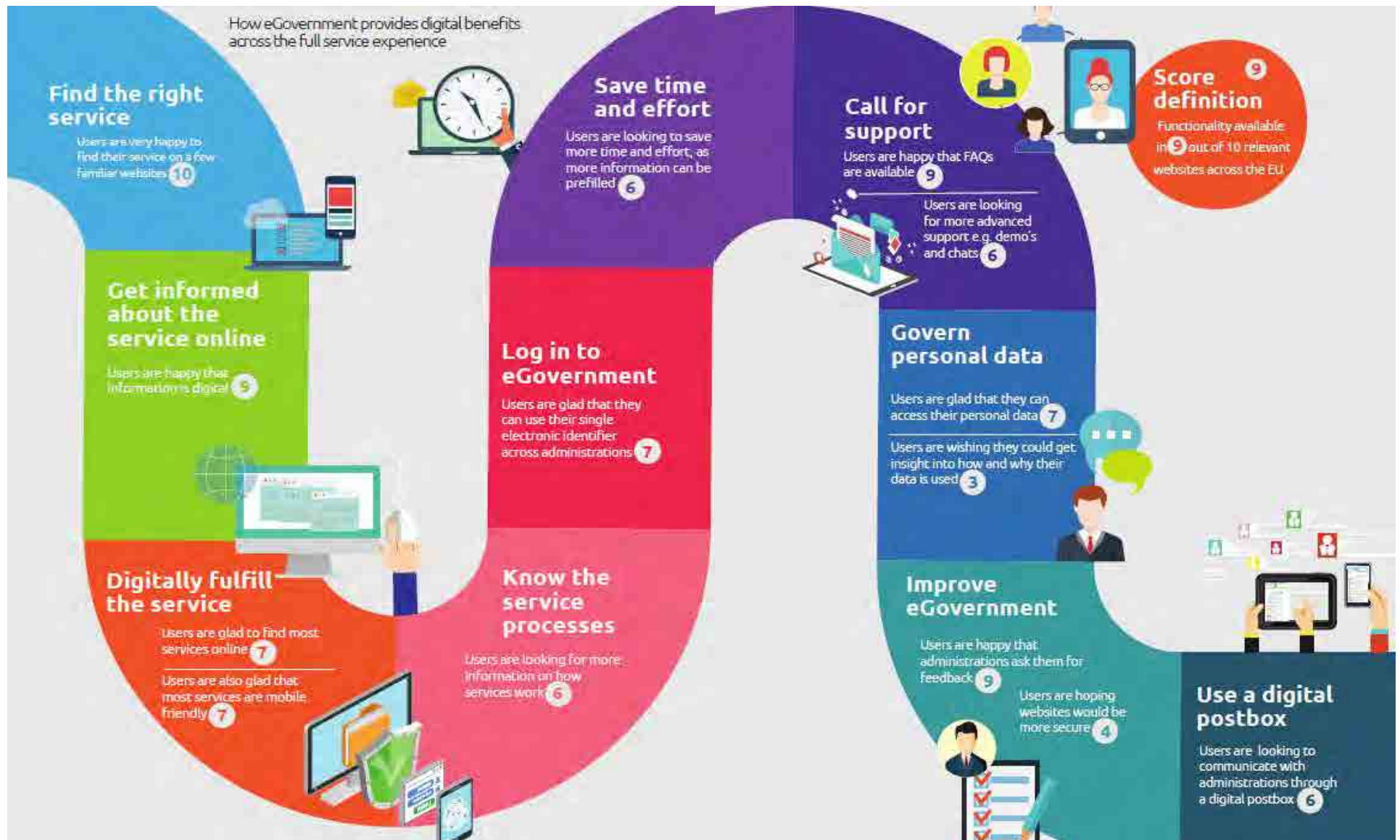
【2016年から隔年評価するライフイベント】

- ① Business Start-up
- ② Family Life
- ③ Losing and Finding a Job
- ④ Studying

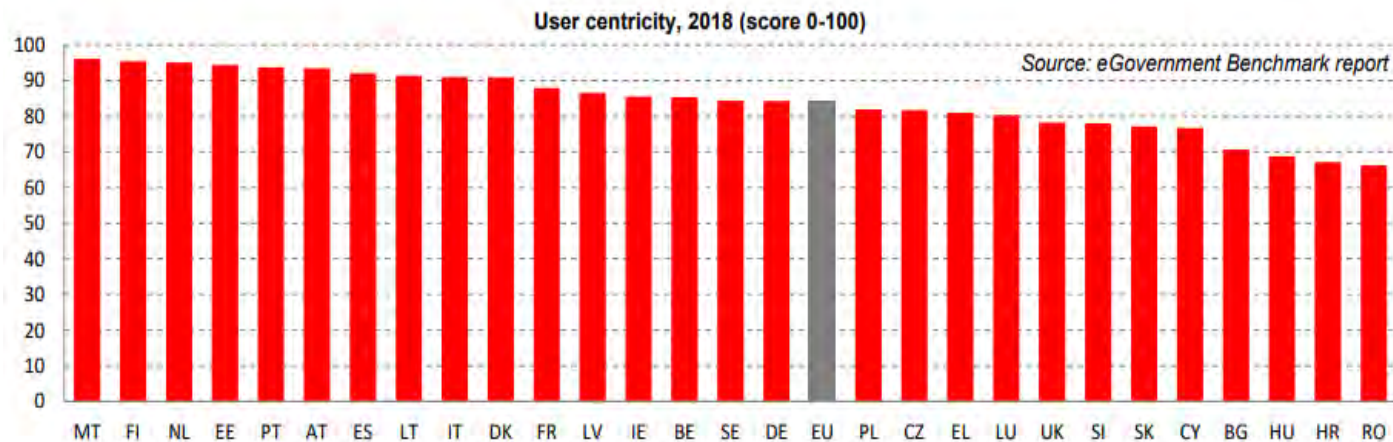
【2017年から隔年評価するライフイベント】

- ⑦ Regular Business Operations
- ⑧ Moving
- ⑨ Owning and Driving a Car
- ⑩ Starting a Small Claims Procedure

User Journey手法で、ライフイベントをEnd-to-Endの評価

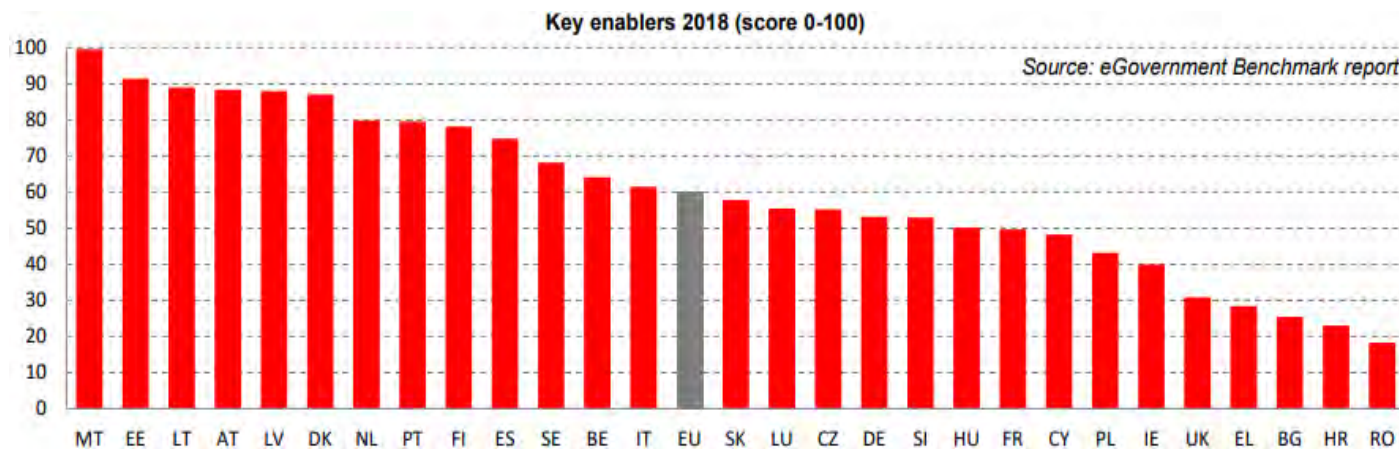


“User Centricity”及び“Key Enablers”のベンチマーク事例



“User Centricity” indicator includes:

- Online availability
- Usability
- Mobile friendliness



“Key Enablers” indicator includes:

- Electronic Identification (eID)
- eDocuments
- Authentic sources
- Digital post

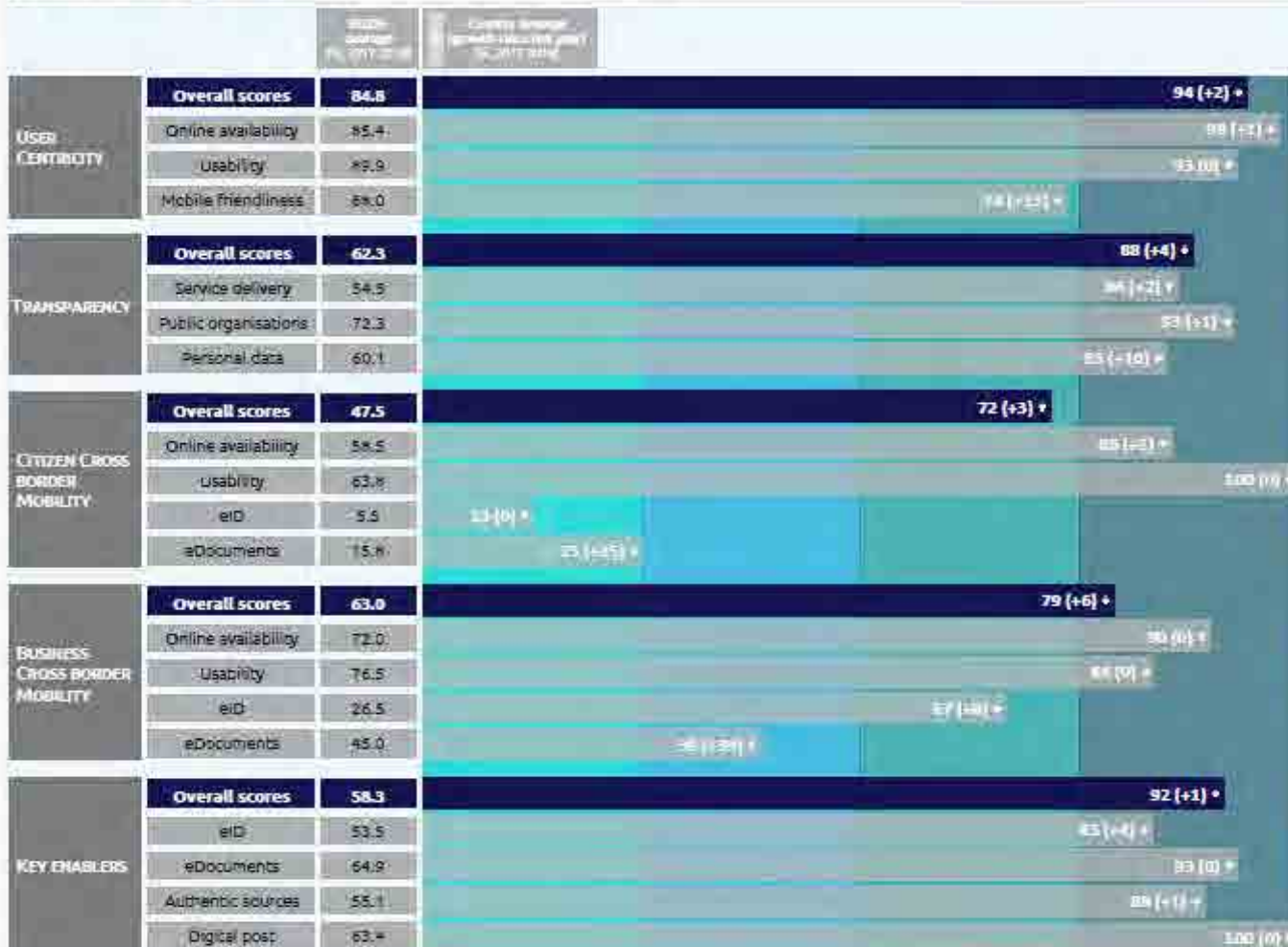


ESTONIA

eGOVERNMENT STATE OF PLAY 2019



eGovernment performance across policy priorities



How are services delivered?

The top-level benchmark **User centricity** indicates to what extent (information about) a service is provided online, how the online journey is supported and if public websites are mobile friendly.

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

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

Mobile friendliness: indicates if the website provides a service through a mobile-friendly interface: an interface that is 'adapted' to the mobile device.

The top-level benchmark **Transparency** indicates to what extent governments are transparent regarding:

Transparency of public organisations: indicates how transparent governments are about their own responsibilities and performance.

Transparency of service delivery: indicates to what extent governments are transparent as regards the process of service delivery.

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

The top-level benchmarks for **Citizen and Business Cross-border mobility** indicates to what extent EU citizens can use online services another country.

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

Online usability: indicates if support, help and (interactive) feedback functionalities are online.

eID: indicates if a national eID from country A can be used in country B.

eDocuments: indicates if eDocuments can be transmitted from country A to country B.

The top-level benchmark **Key enablers** indicate the extent to which 4 technical pre-conditions are available online.

These are: electronic identification (**eID**), electronic documents (**eDocuments**), **Authentic sources**, and **Digital post**. Digital post refers to the possibility that governments communicate electronically-only with citizens or entrepreneurs through personal mailboxes or other digital mail solutions.

NOTE: the method for the eGovernment Benchmark has been updated in 2016 and have comparisons with previous years are excluded to avoid misunderstandings. Please see the Insight report and Background report for deeper insights and historical trends.

eGovernment performance of life events (domains)



Life event descriptions

Business start-up and early trading operations (2018)

This life event covers 33 services, both mandatory services, as well as information needs, that allows an entrepreneur to start his business. It includes orientation, administrative and register requirements, and tax and insurance related matters. Early trading operations refer to activities concerning hiring employees and requesting an environmental permit.

Losing and finding a job (2018)

From immediate actions for unemployed applications for additional benefits and allowances, this life event captures vital elements when becoming unemployed. It also include various services concerning job search and participation in training programs, supporting people to find a job. A complete set of 22 services has been assessed.

Family life (2018)

Including services that are typical for young families, such as marriage (or other partnerships), birth and related (financial) rights, renovating a house, and also looking forward to your financial situation etc a later age.

Studying (2018)

In this life event, comprising of 14 services, it is evaluated to what extent enrolment higher education can be done online. It also includes the orientation, such as gaining a clear understanding of admission requirements. Furthermore, support services during study are part of the assessment. For instance career advice and portability of student grant when studying abroad.

Regular business operations (2017)

A business life event that covers 11 services related to regular business operations, such as administrative and tax requirements, human resources and refund of VAT.

Moving (2017)

This concise life event illustrates the journey in case of moving places; from deregistering to register address in the new town. It also includes notifications to other public organizations and utilities.

Owning and driving a car (2017)

A total of 12 services concerning buying and selling a car and driving fines, and related to car taxes, parking permits and other administrative requirements.

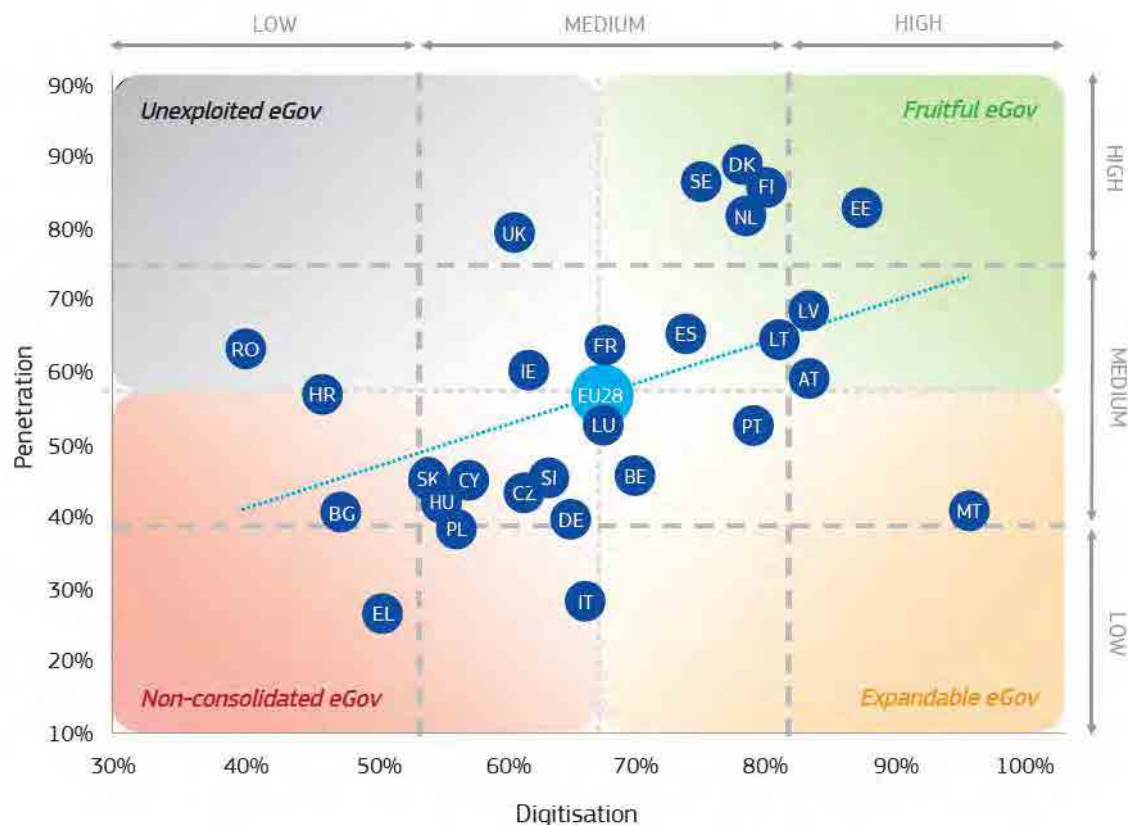
Starting a small claims procedure (2017)

This life event is part of the Justice domain, and captures the journey of someone willing to start a small claims procedure: from orientation and initiation to reviewing verdict and appeal.

各国のパフォーマンスを「デジタル化率」×「デジタル活用率」の2軸で評価・比較

Penetration reflects the degree to which the online channel is used for government services and is determined using Eurostat data,

⇒ デジタル化された行政サービスが、実際にどのくらい活用されているかをEurostatのデータを活用して評価したもの



Digitisation captures the degree of digitalization for the back- and front-office of Public Administration. It is determined using the data from the eGovernment benchmark indicators.

⇒ デジタルガバメントのフロント及びバックオフィスにおけるデジタル化の完了度合い(どれだけの行政サービスがデジタル化されたか)をeGovernment Benchmark indicatorsを活用して評価したもの

eGovernment Benchlearning analysis

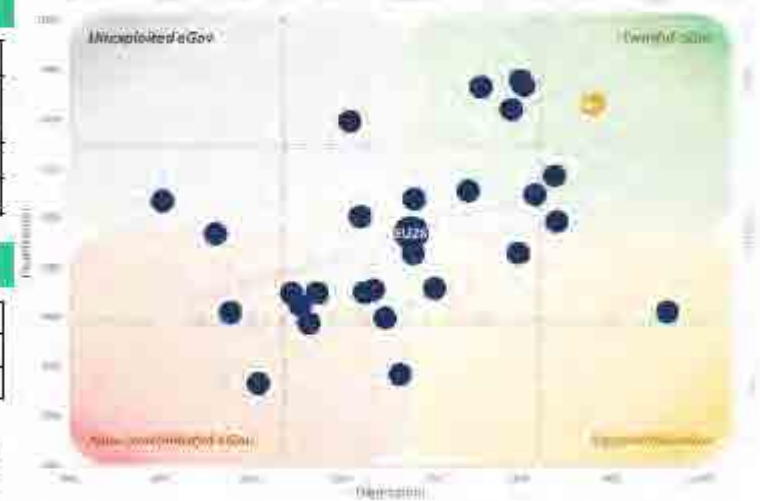
Relative indicators

	USER CHARACTERISTICS		GOVERNMENT CHARACTERISTICS		DIGITAL CONTEXT CHARACTERISTICS	
	Digital Skills	ICT usage	Quality	Openness	Connectivity	Digital in the private sector
EU28	49%	53%	70%	68%	60%	42%
EE	62%	61%	76%	59%	62%	39%

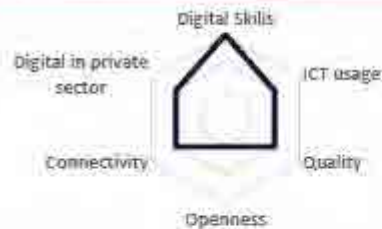
Performance

	PENETRATION	DIGITISATION
EU 28	57%	68%
EE	83%	88%

A high level of both Digitisation and Penetration characterises Estonia. Estonia is part of the Fruitful eGov scenario, a scenario that includes the best-in-class countries, which perform at a Digitisation and Penetration level above average. Estonia is the country with the best overall performance in terms of eGovernment maturity. The Penetration level is 83% and Digitisation level is 88%.



Environment



Estonia's relative indicators show a country with almost all the characteristics (User characteristics, Government characteristics and Digital context characteristics) in line with the European average. Openness indicator is below the European average, while Digital skills is above European average.

Considerations

Penetration -
Outperforming

Estonia is a country with all the environmental characteristics in line with the European average. Furthermore, it is one of the best European countries in terms of eGovernment maturity. Looking at the results of the analysis, Estonia is the only country that is Outperforming in all analysis of combination of

Digitisation -
Outperforming

relative and absolute indicators, the Estonian government seems to have implemented good policies and strategies that enabled the country to have both high Digitisation of the front- and the back-offices and widespread digital services (Penetration).

eGovernment Benchmark結果の開示方法

ベンチマーキングの結果は、全体総括、国別分析、インフォグラフィックス、国別スコアカードの4種類がインターネット上で公開される。



(出典) 欧州委員会 “eGovernment Benchmark 2019”

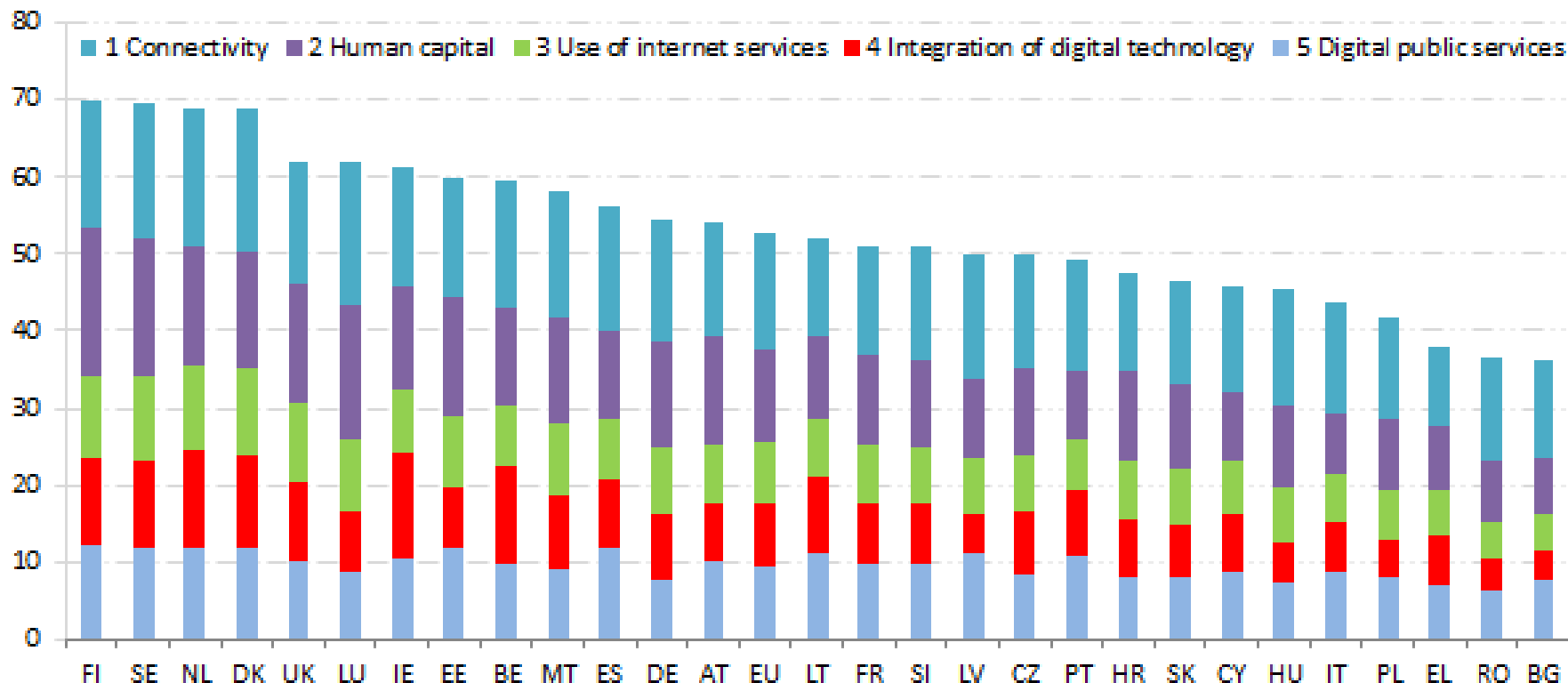
<https://ec.europa.eu/digital-single-market/en/news/egovernment-benchmark-2019-trust-government-increasingly-important-people>

(出典) 欧州委員会 “NIFO National Interoperability Framework Observatory” Digital Government Factsheets 2019”

<https://joinup.ec.europa.eu/collection/nifo-national-interoperability-framework-observatory/digital-government-factsheets-2019>

DESIは、欧州各国の経済社会のデジタル化度合いを5つのKPIで評価・比較

Digital Economy and Society Index (DESI) 2019 ranking



1. Connectivity
The Connectivity dimension measures the deployment of broadband infrastructure and its quality. Access to fast and ultrafast broadband-enabled services is a necessary condition for competitiveness.

2. Human Capital/Digital skills
The Human Capital dimension measures the skills needed to take advantage of the possibilities offered by digital.

3. Use of Internet Services by citizens
The Use of Internet Services dimension accounts for a variety of online activities, such as the consumption of online content (videos, music, games, etc.) video calls as well as online shopping and banking.

4. Integration of Digital Technology by businesses
The Integration of Digital Technology dimension measures the digitisation of businesses and e-commerce. By adopting digital technologies, businesses can enhance efficiency, reduce costs and better engage customers and business partners. Furthermore, the Internet as a sales outlet offers access to wider markets and potential for growth.

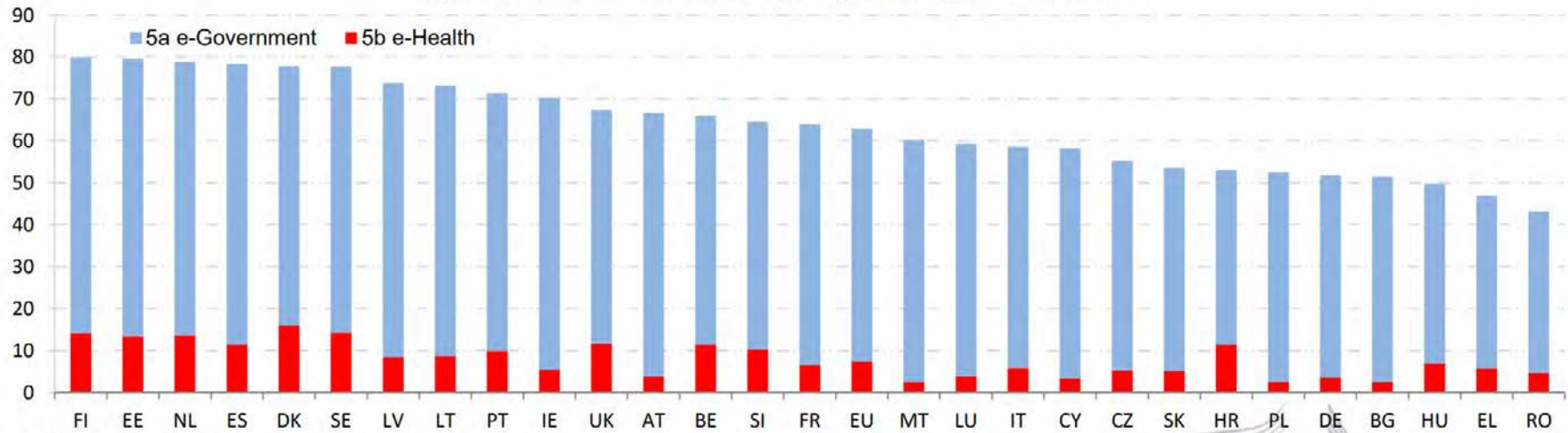
5. Digital Public Services
The Digital Public Services dimension measures the digitisation of public services, focusing on eGovernment and eHealth. Modernisation and digitisation of public services can lead to efficiency gains for the public administration, citizens and businesses alike.

DESIの1領域がDigital Public Services。5a1～5b3の8KPIで構成

The digital public services dimension consists of eight indicators: the eGovernment users measured as a percentage of those internet users who need to submit forms to the public administration (the **e-government users** indicator); the extent to which data that is already known to the public administration is pre-filled in forms presented to the user (the **pre-filled forms** indicator); the extent to which the various steps in dealing with the public administration can be carried out completely online (the **online service completion** indicator); the degree to which public services for businesses are interoperable and cross-border (the **digital public services for businesses** indicator); the government's commitment to open data (the **open data** indicator); the percentage of people who used online health and care services without having to go to a hospital or doctors surgery (the **e-health services** indicator); the extent to which general practitioners are using electronic networks to exchange medical data with other healthcare providers and professionals (the **medical data exchange** indicator); and the extent to which general practitioners are using electronic networks to transfer prescriptions to pharmacists (the **e-prescription** indicator).

Digital Public Services indicators in DESI 2019		EU
5a1 e-Government users		64%
% internet users needing to submit forms		2018
5a2 Pre-filled forms		58
Score (0 to 100)		2018
5a3 Online service completion		87
Score (0 to 100)		2018
5a4 Digital public services for businesses		85
Score (0 to 100) - including domestic and cross-border		2018
5a5 Open data		64%
% of maximum score		2018
5b1 e-Health services		18%
% individuals		2017
5b2 Medical data exchange		43%
% of general practitioners		2018
5b3 e-Prescription		50%
% of general practitioners		2018

Digital Economy and Society Index (DESI) 2019, Digital Public Services



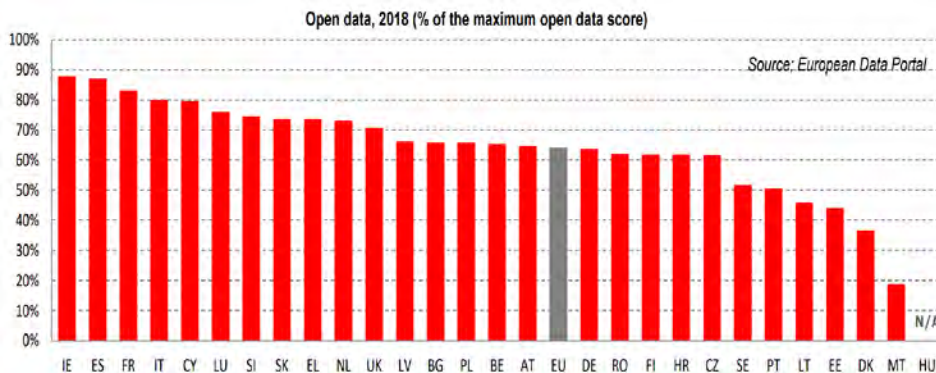
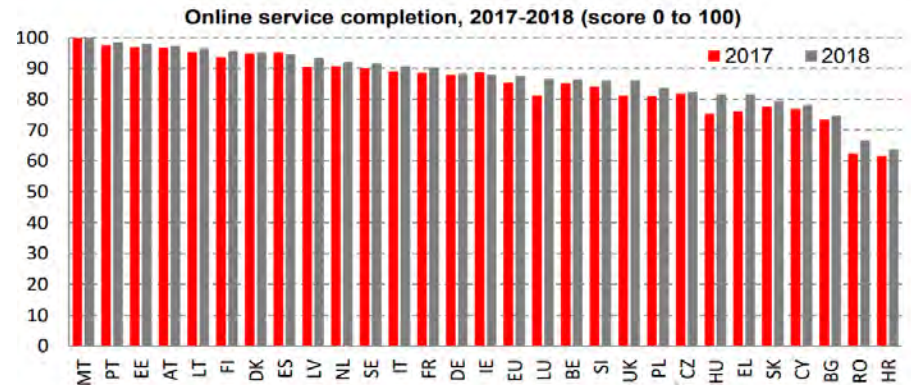
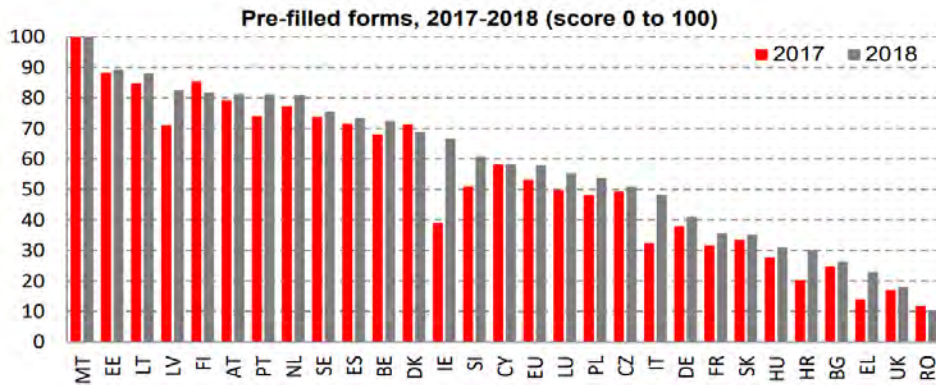
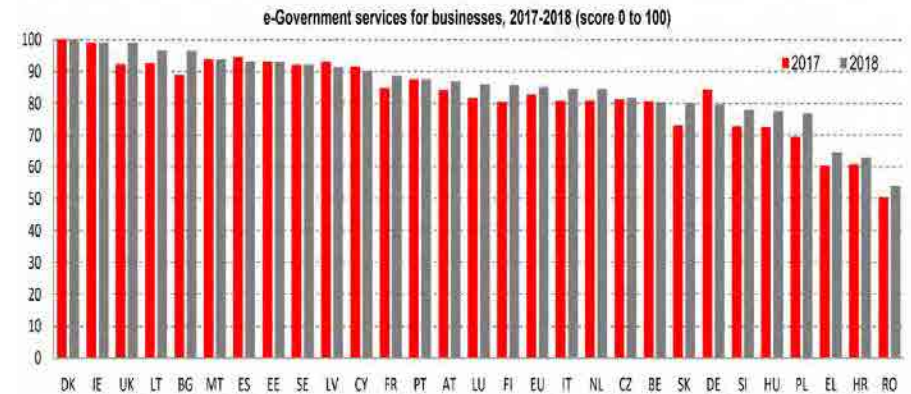
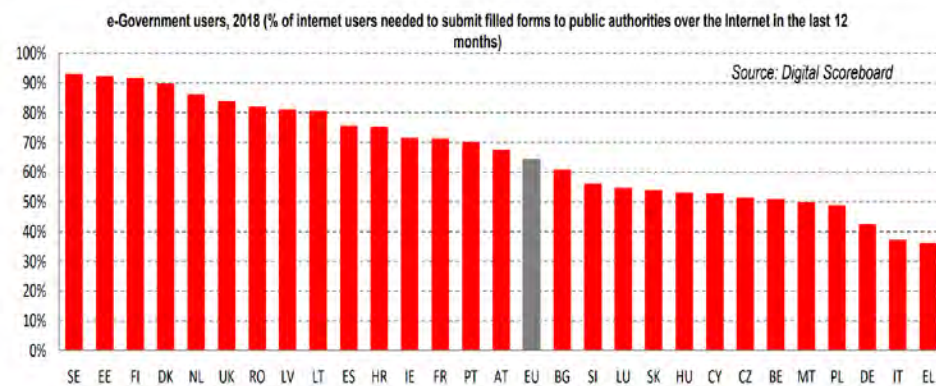
Source: DESI 2019, European Commission

DESI Report 2019 – Digital Public Services

3



DESI Digital Public Servicesの下部KPI(5a1, 5a2, 5a3, 5a4, 5a5)

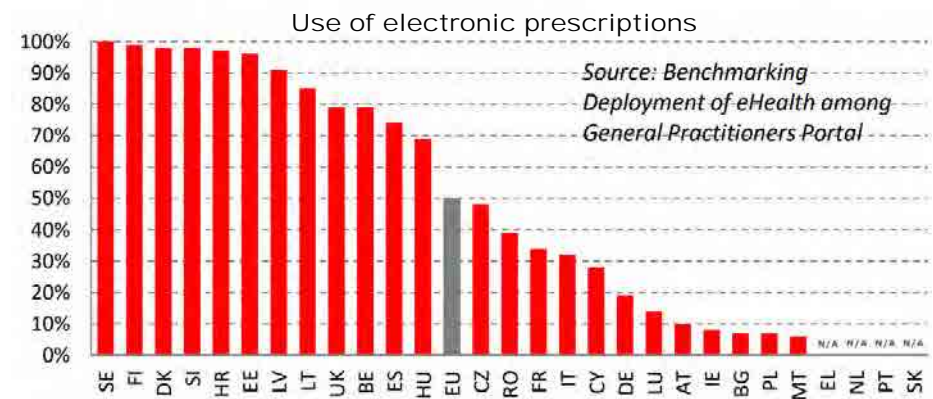
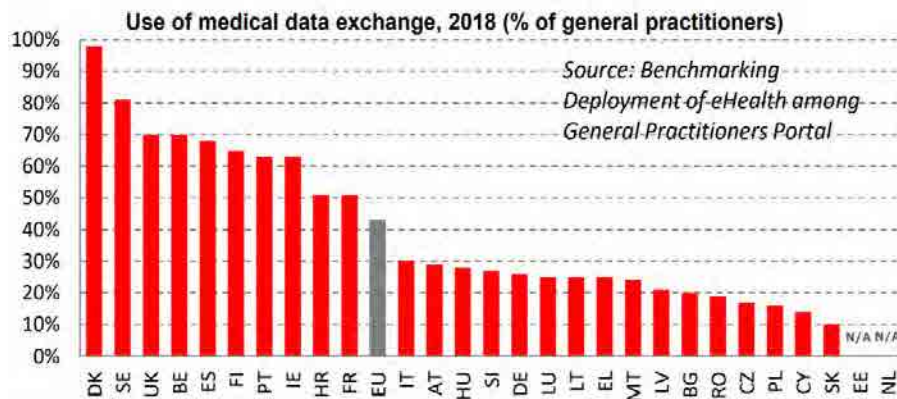
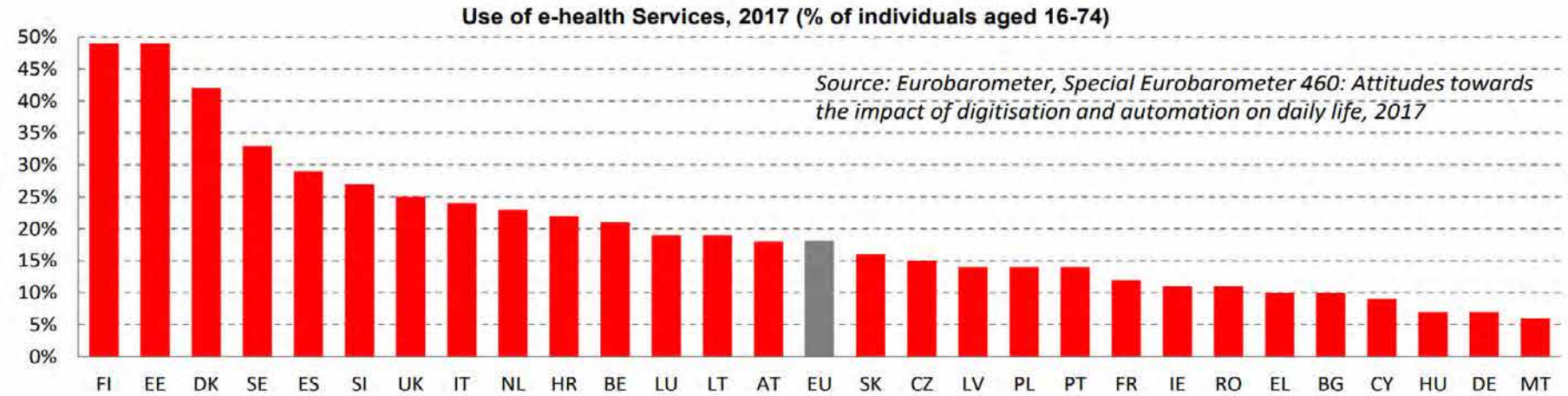


(出典) 欧州委員会 “Digital Economy and Social Index Digital Public Services”

https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=59975



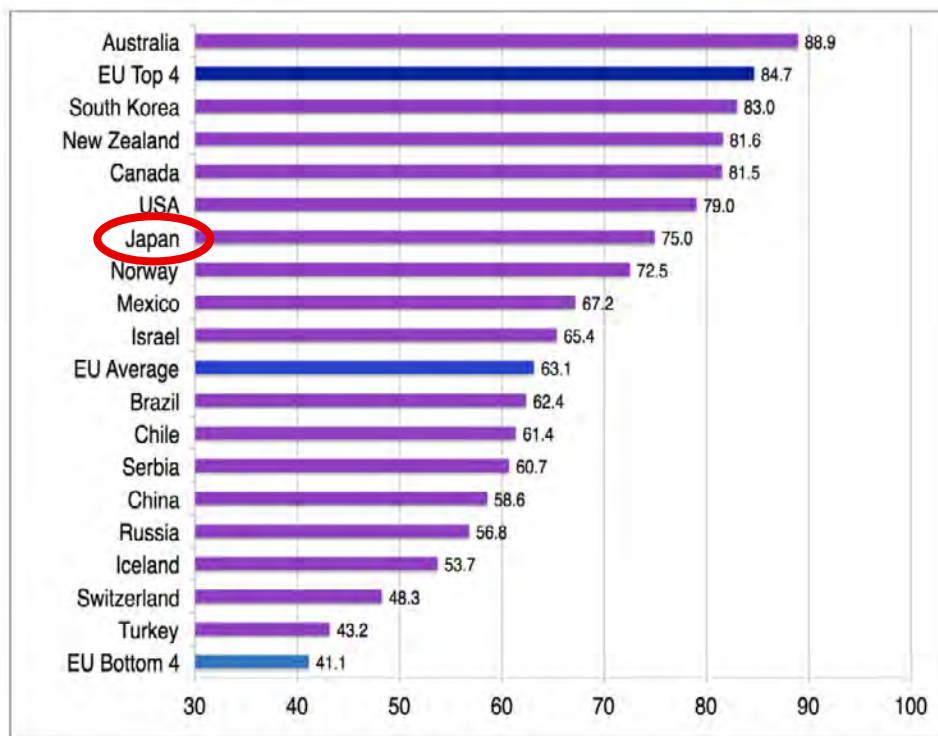
DESI Digital Public Servicesの下部KPI(5b1, 5b2, 5b3)



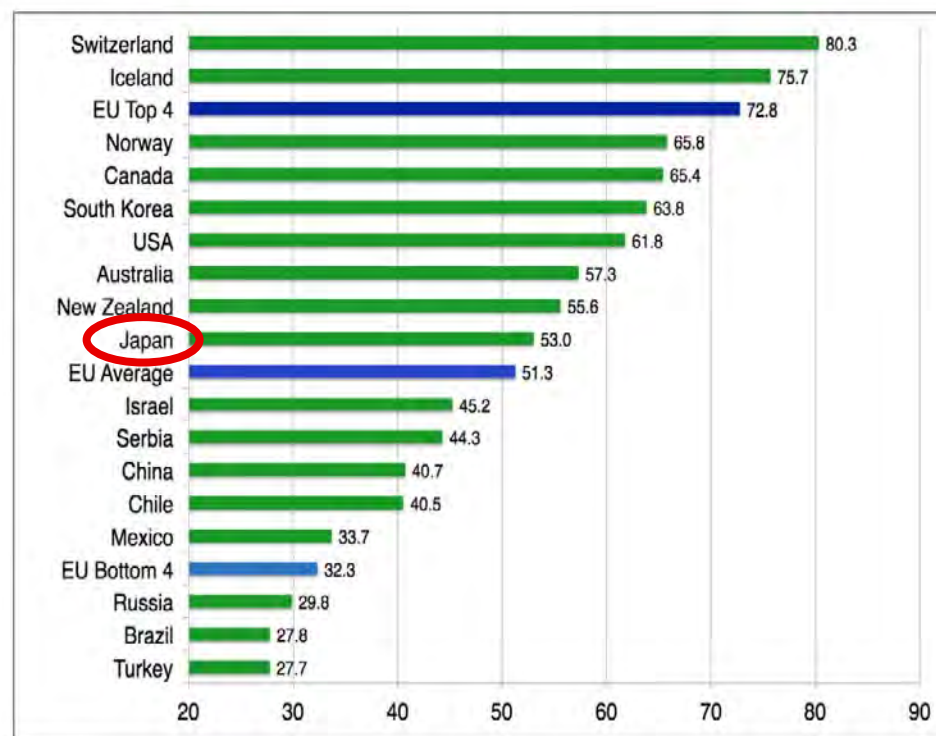
DESI国際版は、EU諸国に加えOECD諸国も含めたベンチマーキングを隔年で実施

- DESI国際版では、日本も評価対象。官民セクターともに、欧州トップ諸国、韓国、カナダ、米国等に続くランキング。

Normalized country scores for the public services dimension 2016 (公共セクター)



Normalized country scores for the business technology integration dimension 2016 (民間ビジネスセクター)



まとめ ～ 日本への示唆

- ① 制度改革の有効性・効率性を高めるためには、ビジョン・戦略(「デジタル・ガバメント実現のためのグランドデザイン」)およびアクションプラン(「デジタル・ガバメント実行計画」)との整合性確保が大切。
- ② 具体的には、「戦略的に優先度が高いベンチマーク項目」と「ユーザーにとってのボリュームゾーン」のふたつの観点から対象の絞り込みを行うアプローチの採用が考えられる。
- ③ 規制の評価を行う上で、「誰がユーザーか」を明確にし、ビジネスモデル全体をEnd-to-Endで評価することが大切。
- ④ 規制改革の進捗度合いを測定・報告する上で、一覧性の高い共通フォーマット(KPIスコアカード)を導入の上、評価結果を可視化し、対象とする組織間の競争と協働(ノウハウの共有等)を促進することが有効。
- ⑤ 評価の客観性担保は重要。例えば、「デジタル化率」に「デジタル活用率」(≒オンライン比率)をセットにする等、現実的な方法で、評価が形式主義に陥らないようにする工夫が必要。
- ⑥ 規制改革を推進する上で、デジタル化の目的は、プロセスのICT化に留まらず、その先にあるデータの利活用であることを関係当事者間で共有することが大切。
- ⑦ データの相互運用性(Interoperability)は、今後、益々グローバル化が進展することが期待される(例: Data Free Flow with Trust)。については、規制改革の推進に際しても、海外諸国との連携を視野に入れることが大切。

Appendix – エストニアの事例

エストニアは、3段階のデジタル化を経て、「ガバナンス全体」のデジタル化を推進中

- 安全保障上の理由 ⇒ ①効率性重視の行政府の立上げ ⇒ ②行政サービスの利便性 ⇒ ③デジタル民主主義による国民参加

Expansion of e-government approach



ega.ee

Digital ID and Signature

Since 2002



06.10.2017

- Digital signatures **417 319 798**
- Active cards: **1 296 888**
- Electronic authentications: **599 635 675**

Source: <http://id.ee/en?id=30468>,

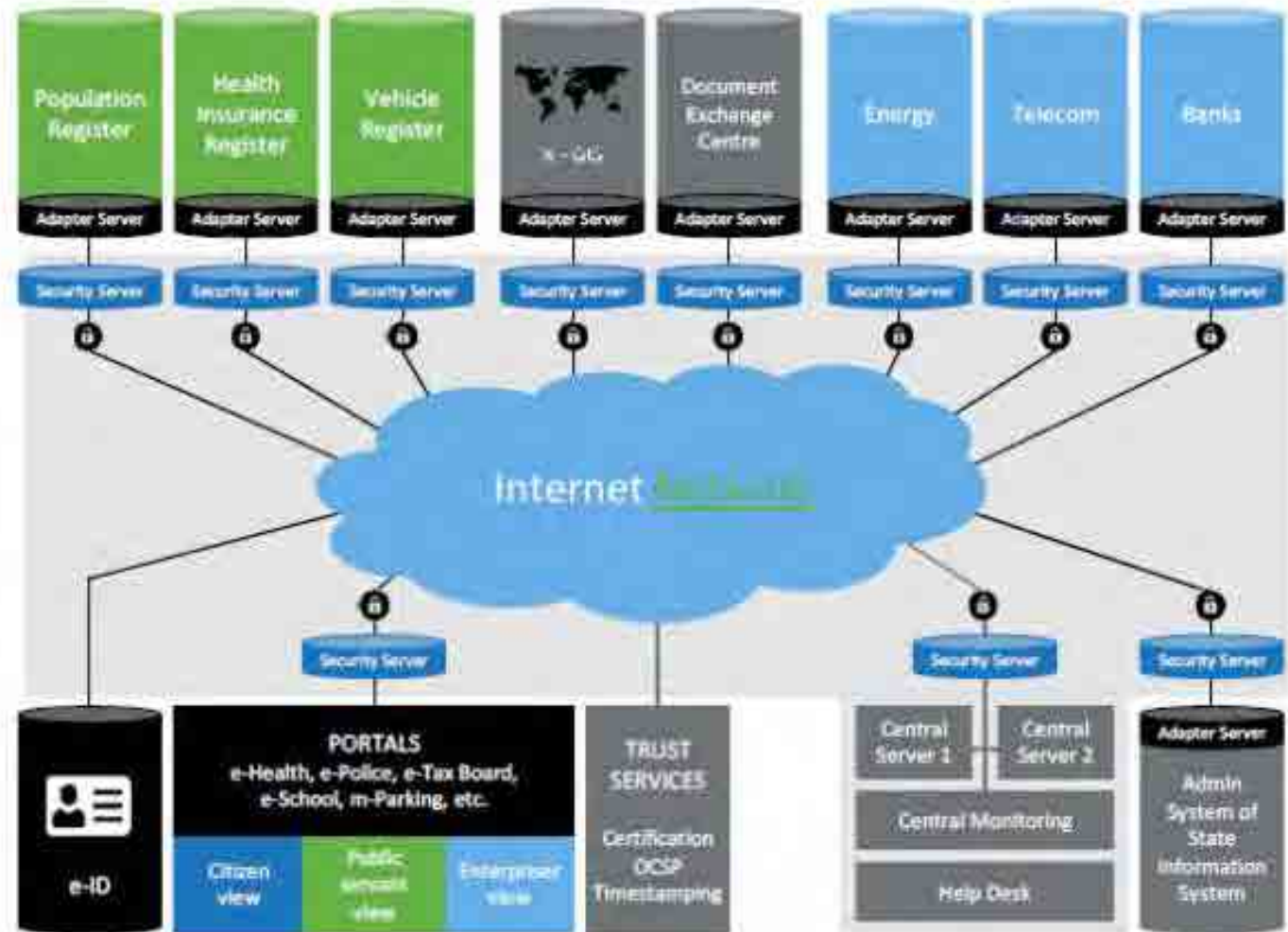
デジタルガバメントの基盤②: X-Road Interoperabilityを実現するデータ交換基盤

X-road

(data exchange layer for information systems)

= technical and organisational environment to enable secure Internet-based data exchange between information systems.

**985 million queries made over the x-road in 2018*



エストニアは行政サービスの99%がデジタル。既にGDPの約2%の節約を実現。

- 98%の処方箋がオンライン発行
- 98%の国民がIDカードを所有
- 95%の税務申告が電子申告
- 44%の投票者がインターネットで投票
- デジタルIDと電子署名の活用によりGDPの2%を節約

e-Cabinet



e-Police



エストニアにおける行政サービスのデジタル化のあゆみ



デジタル化には、法規制や組織のチェンジマネジメントを含めた全体アーキテクチャーが重要



ご利用に際して

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