



The Digital Economy and Society Index (DESI)

*UNCTAD Working Group on
Measuring Electronic Commerce and the Digital Economy
3 December 2019*

Emőke Maembe
European Commission – DG CONNECT

Priority n° 3: "A Europe fit for the digital age"



Digital Single Market

Access

Better access
for consumers
and
businesses
to
digital goods
and services
across Europe

Environment

Innovative
services and
advanced
digital
networks

Economy & Society

Enhance the
growth
potential
of the digital
economy

What is DESI?

Aggregates digital indicators in a composite index

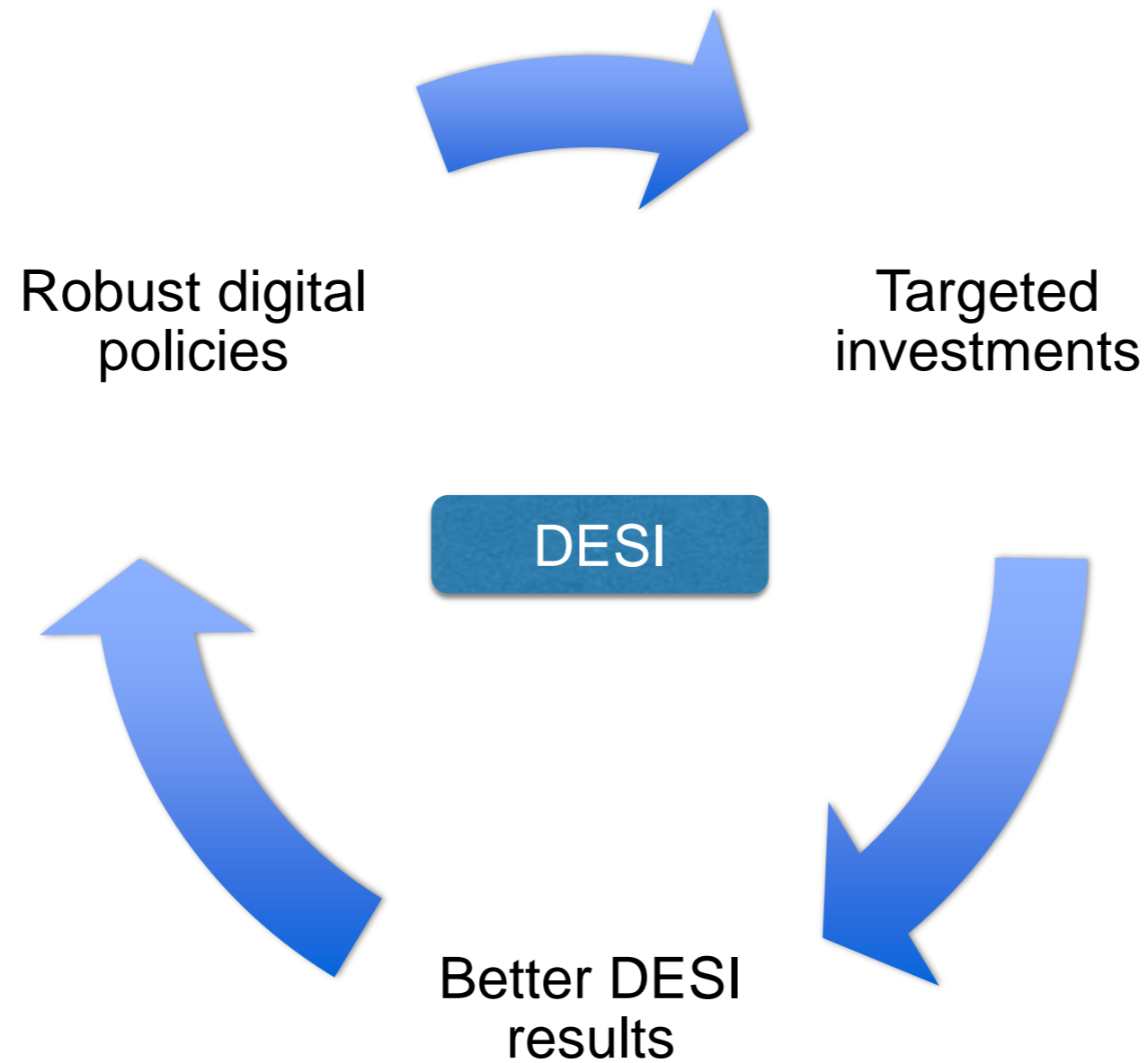
Measures Europe's digital performance & identifies areas for improvement

EC's Main Digital Analytical Tool

Tracks progress of EU Member States

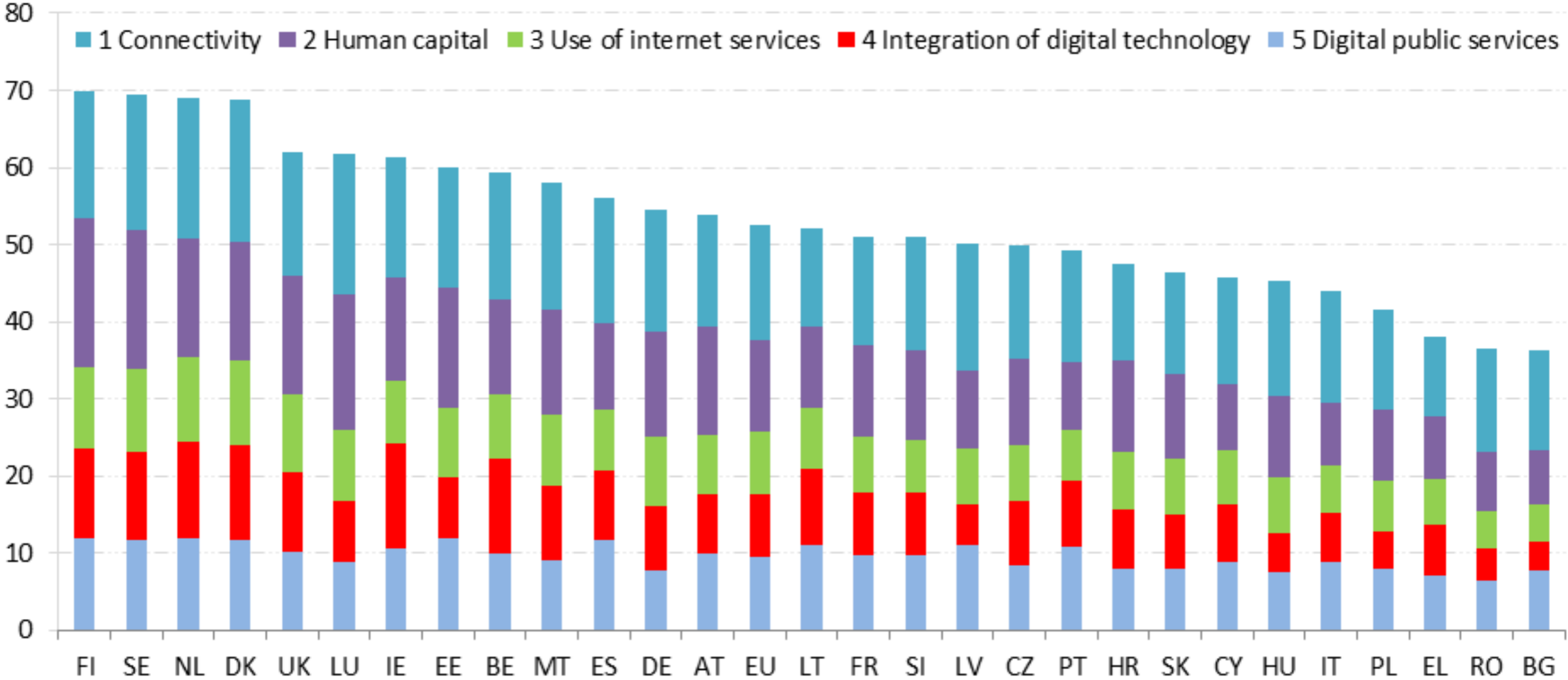
Supports international benchmarking

DESI Drives Strategic Digital Development



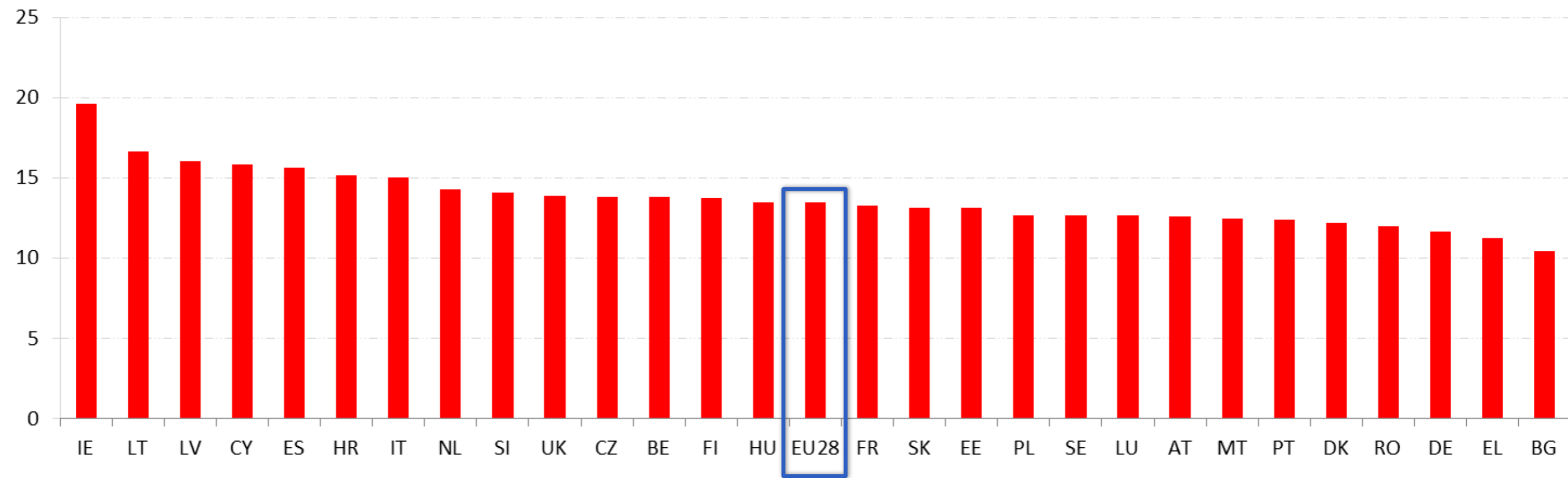
DESI 2019 ranking

Digital Economy and Society Index (DESI) 2019 ranking



5 Years Digital Progress in the EU

Digital Economy and Society Index (DESI) - growth 2014-2019



Structure

- The DESI comprises **5 dimensions** representing main policy areas
- Relevant **sub-dimensions** under each dimension
- Overall including over **40** indicators
- Calculated for **six years**, from 2014 to 2019.



1. Connectivity

- Connectivity is a necessary infrastructure for a digital economy and society.
- A digital society can only develop if its members are connected to the Internet.
- A high-speed Internet connection is essential to fully benefit from the developments of today's digital world.

1 Connectivity

1a Fixed
broadband

1b Mobile
broadband

1c Fast
broadband

1d Ultrafast
broadband

1e
Affordability

1a1
Fixed BB
coverage

1a2
Fixed BB
take-up

1b1
Mobile BB
take-up

1b2
Spectrum

1b3
5G
readiness

1c1
Fast BB
coverage

1c2
Fast BB
take-up

1d1
Ultrafast
BB
coverage

1d2
Ultrafast
BB
take-up

1e1
Fixed BB
Price

2. Human Capital

- Digital skills are a necessary prerequisite for a digital economy and society.
- Citizens must have the appropriate skills to take advantage of the Internet.
- Basic skills enable individuals to take part in the digital society.
- Advanced skills empower the workforce to develop digital goods and services for enhanced productivity and economic growth.

2 Human Capital

2a Basic Skills

2b Advanced skills

2a1
At least basic
digital skills

2a2
Above basic
digital skills

2a3
At least basic
software skills

2b1
ICT Specialists

1b2
Female
ICT specialists

2b3
ICT graduates

3. Use of Internet

- Citizens engage in a wide range of content-rich activities online:
 - They consume content (e.g. news, music, movies, TV or games).
 - They communicate in different ways (e.g. online video-calls or social networks).
 - They engage in transactions (e.g. banking or shopping online).
- Such activities are drivers for the development of broadband networks.

3 Use of Internet

3a
Internet use

3b
Activities online

3c
Transactions

3a1
People
who never
used the
internet

3a2
Internet
users

3b1
News

3b1
Music,
Videos
and
Games

3a3
Video
on
Demand

3b1
Video
calls

3b2
Social
Networks

3b2
Professional
Social
Networks

3b2
Doing
an
online
course

3b2
Online
consultations
and voting

3c1
Banking

3c2
Shopping

3c3
Selling
online

4. Integration of Digital Technology

- Business digitisation is one of the main contributors to enhanced economic growth.
- Adoption of digital technology enhances efficiency, reduces costs and allows for closer engagement with customers, collaborators or business partners.
- The ability to use the Internet as a sales outlet pushes businesses to modernise and allows them to exploit new sources of revenue.

4 Integration of Digital Technology

4a
Business digitization

4b
eCommerce

4a1
Electronic
Information
sharing

4a2
Social
Media

4a3
Big data

4a4
Cloud

4b1
SMEs
selling
online

4b2
eCommerce
Turnover

4b3
Selling online
cross-border

5 Digital Public Services

- Digital technologies can improve business and citizen interaction with the public sector.
- Public administrations can better address business and citizen needs, while reducing costs.
- Better and more streamlined public services make citizens and businesses gain efficiency, both due to better functionality as well as to reductions in time spent.

5 Digital Public Services

5a e-Government

5b e-Health

5a1
e-Government
Users

5a2
Pre-filled
Forms

5a3
Online
service
completion

5a4
Digital
public services
for businesses

5a5
Open
Data

5b1
e-Health
Services

5b2
Medical
data
exchange

5b3
e-Prescription

Types of Analyses Based on the DESI

General performance assessment

- Characterisation of the performance of individual Member States by observing their overall index score and the scores of the main index dimensions.

Zooming-in

- Pinpoint the areas where Member State performance could be improved by analysing the scores of the index's sub-dimensions and individual indicators.

Follow-up

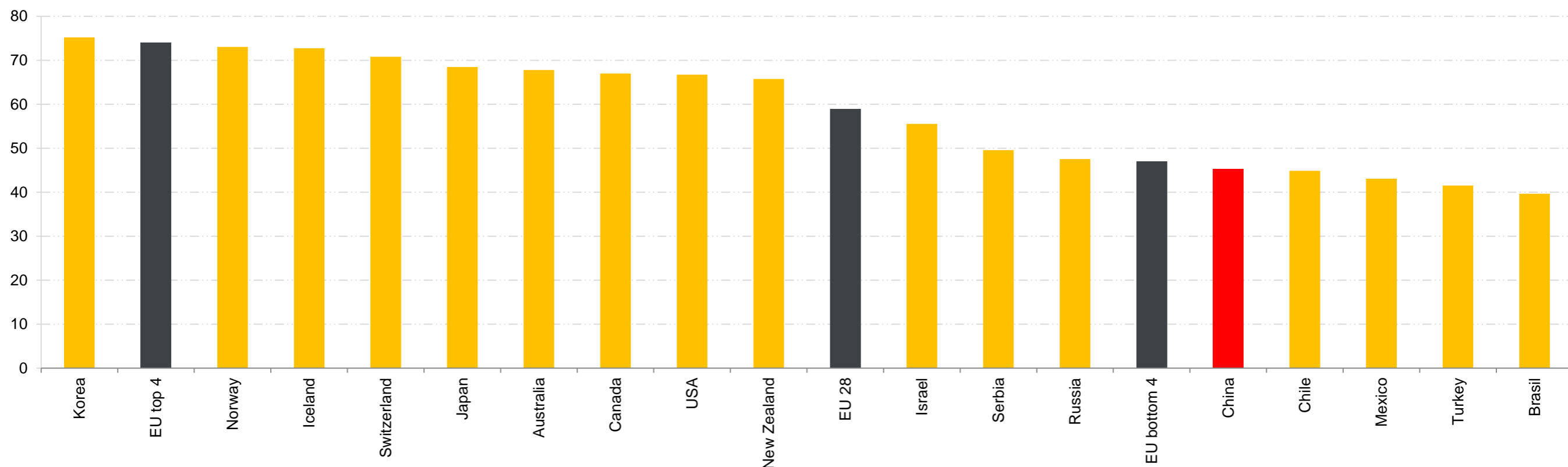
- Assess progress over time in aggregate dimensions and individual indicators.

Comparative analysis

- Cluster Member States according to their index scores and growth from the previous year
- Comparisons between Member States in similar stages of digital development to flag the need for improvement in relevant policy areas.

iDESI: How does the EU compare to other digitised countries worldwide?

International Digital Economy and Society Index (i-DESI) 2018



Source: Tech 4i2

The iDESI includes the same five dimensions as the DESI, but it is built on a slightly different set of indicators than DESI due to some DESI indicators not being available in non-EU countries.

As a result, the I-DESI rankings and scores are slightly different to those of the DESI.

Useful links

- DESI main page with press release: <https://ec.europa.eu/digital-single-market/en/desi>
- Country profiles <https://ec.europa.eu/digital-single-market/en/scoreboard/>
- DESI visualisation tool (graphs and numbers): <https://digital-agenda-data.eu/datasets/desi/visualizations>
- Press release: https://europa.eu/rapid/press-release_IP-19-2930_en.htm
- MEMO: https://europa.eu/rapid/press-release_MEMO-19-2933_en.htm
- Download the new DESI Report 2019:
 - Connectivity - Broadband market developments in the EU ([PDF](#))
 - Human Capital - Digital Inclusion and Skills ([PDF](#))
 - Use of Internet Services ([PDF](#))
 - Integration of Digital Technology ([PDF](#))
 - Digital Public Services ([PDF](#))
 - The EU ICT Sector and its R&D Performance ([PDF](#))
 - Research and Innovation: ICT projects in Horizon 2020 Digital ([PDF](#))
- Review country performance - [Country Profiles](#)
- Explore DESI Report [Telecoms Chapters](#)
- Explore DESI [Data](#)



Thank you!

Emőke Maembe

emoke.maembe@ec.europa.eu

European Commission – DG CONNECT