McKinsey & Company

The rise of Digital Challengers

How digitization can become the new growth engine for Slovenia

June, 2019

McKinsey & Company with strong presence across the entire CEE region

We have the biggest footprint in the region

- The largest and most experienced strategy consulting firm with extensive local footprint
- Over 1800 people in McKinsey & Company in the region
- 9 local offices with over 270 consultants
- Recognized and trusted partner in public, social and private space

We have deep understanding of the Slovenian market

McKinsey served some of the largest companies in Slovenia[1] across more than 10 different industries, out of which several were in digital sphere

1 Slovenian activities are covered by consultants from CEE office complex

Dedicated reports launched by McKinsey in CEE in the last 5 years

We are a thought leader in the CEE region on topics such us economic development, automation, and digital opportunities

Pan-CEE reports

Digital Challengers

Reigniting growth in CEE

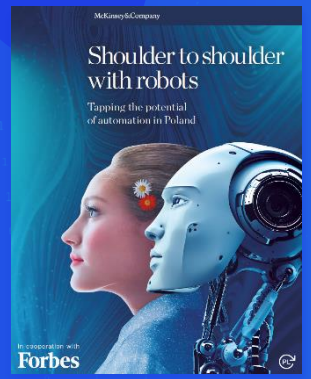
New growth model for CEE countries

5 opportunities for Poland

Poland 2025

How Hungary can win productivity race

Future of work



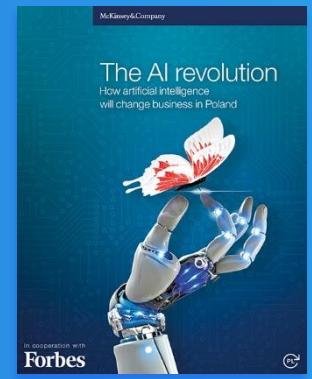
Automation potential in Poland

Automation potential in Hungary

Digital

Digital Czech Republic

Digital Poland



AI Revolution

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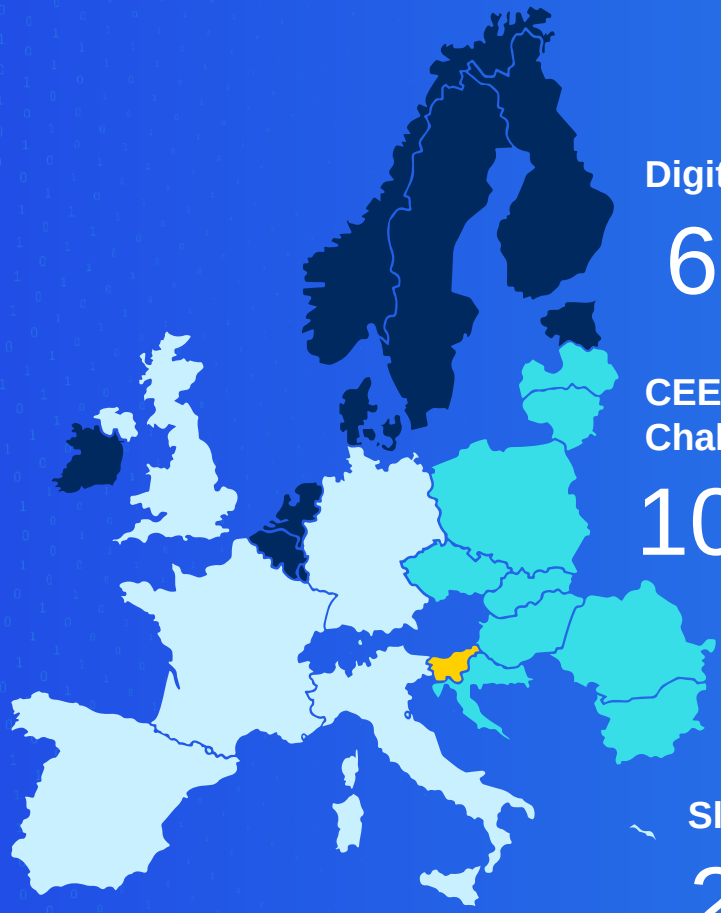
Despite significant increase in the last years, Slovenian Real GDP per capita is still 2.5 times lower in comparison to the Digital Frontrunners ...



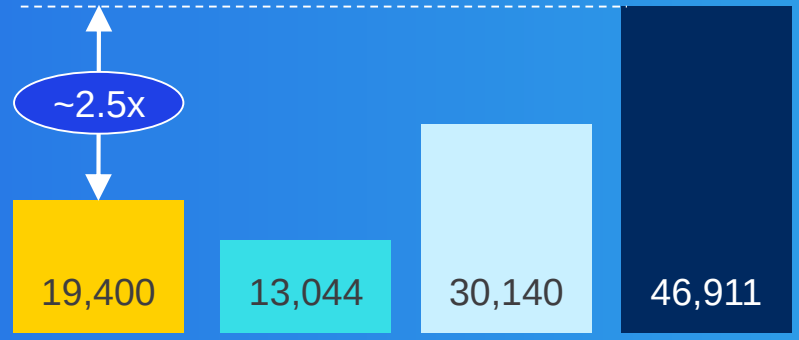
Digital Frontrunners[1]
62 million people

CEE – Digital Challengers[2]
101 million people

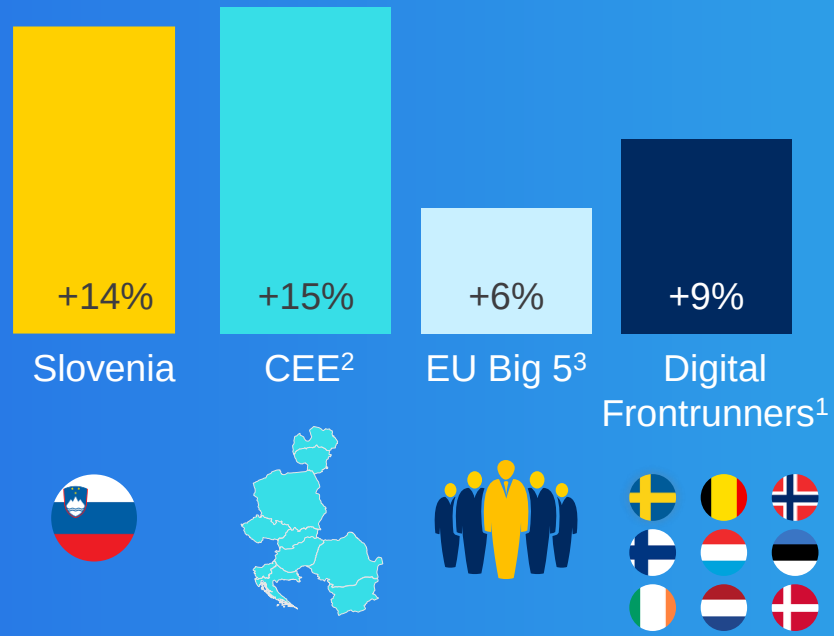
Slovenia
2 million people

EU Big 5[3]
323 million people

Real GDP per capita, 2017, EUR



Real GDP per capita growth, 2013-2017, %



1 Belgium, Denmark, Estonia, Finland, Ireland, Luxembourg, Netherlands, Norway, Sweden
2 CEE: Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia
3 France, Germany, Italy, Spain, UK

SOURCE: Local institutes of statistics; Eurostat

Production[1] = Productivity A ⊗ Labor L^{β} ⊗ Capital K^{α}

(GDP)

... mainly driven by lower productivity and limited investments

	Productivity - GDP per hour worked[2], 2017, EUR	Unemployment, 2017,%	Hours worked per year per employee, 2017	Capital stock per employee, EUR mln, 2016
Digital Frontrunners[3]	64	6.1	1,573	23
Slovenia	39.2	6.6	1,655	7

1 Cobb–Douglas production function; Total production = Total factor productivity * Labor input$^{\beta}$ * Capital input$^{\alpha}$ ($\alpha + \beta = 1$; α and β are the output elasticities of capital and labor, respectively)
2 EUR purchasing power parities in current prices
3 Belgium, Denmark, Estonia, Finland, Ireland, Luxembourg, Netherlands, Norway, Sweden

SOURCE: Eurostat; Local institutes of statistics

As traditional growth engines fade away, digital economy is the new growth driver

	Slovenia	CEE	EU Big 5[2]	Digital Frontrunners	Sweden
Share of digital economy[1] % GDP, 2016	5.2	6.5	6.9	7.4	9.0
Growth of digital economy %, 2012-16	0.5	6.2	3.1	5.8	9.9

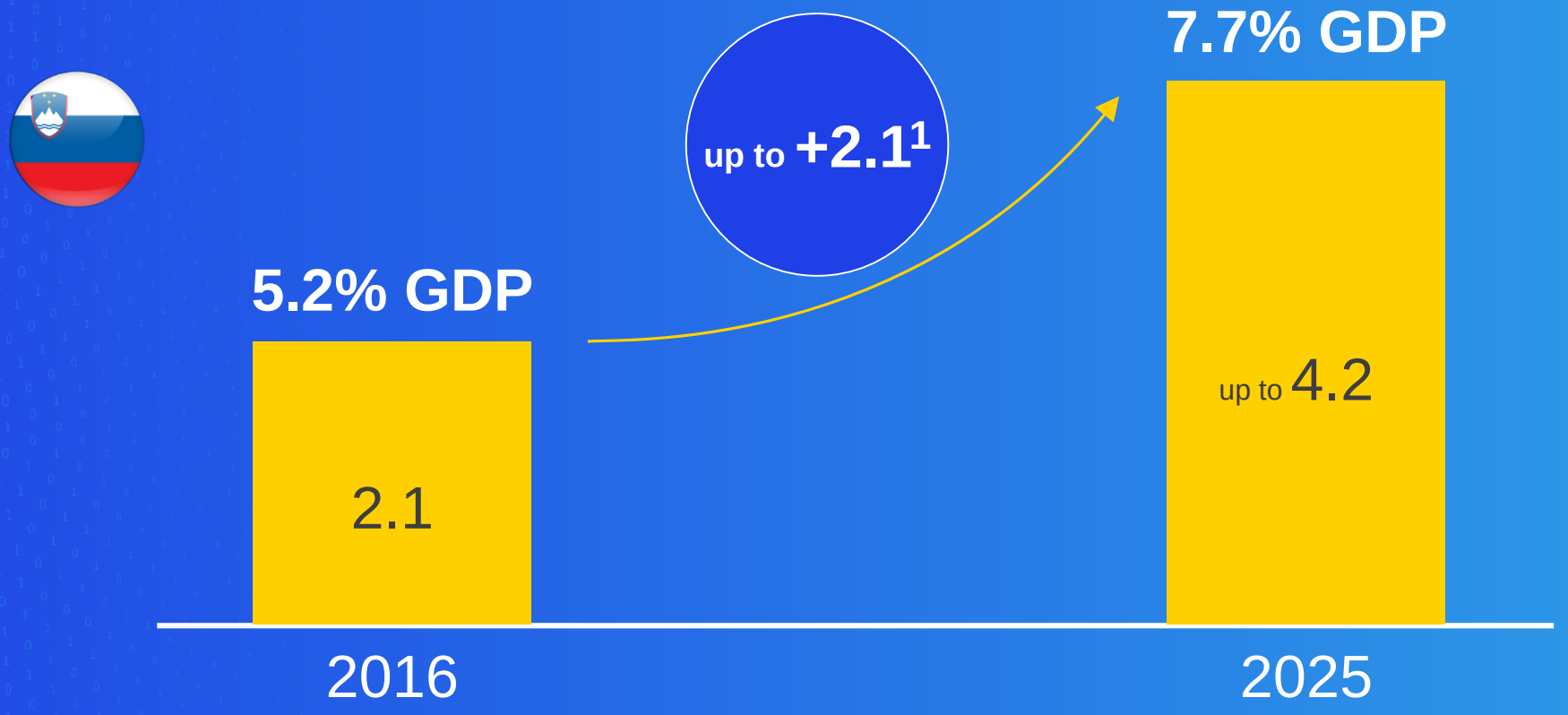
1 Sum of gross value added for sectors ICT, e-commerce and consumer spending on digital equipment (e.g., computers, smartphones, smartwatches)
2 France, Germany, Italy, Spain, UK

SOURCE: Eurostat; Euromonitor; Local institutes of statistics; McKinsey Global Institute

Digital economy growth potential for Slovenia

"Aspirational value extraction scenario", EUR bln

Strong focus on digitization can generate additional 2.1 EUR billion of GDP in Slovenia by 2025



*Digitization with **potential to drive considerable GDP contribution** for Slovenia; however, **wider macroeconomic implications** need to be considered and **mitigating actions** to address these implications need to be developed*

1 Assumptions: Acceleration of e-commerce and consumer offline spending on digital until 2025 to yield 0.7 EUR bln based on Sweden benchmark; Capturing digitization potential in business and public sector assumed growth until 2025 to yield 1.4 EUR bln

SOURCE: Eurostat; IHS; Local institutes of statistics; McKinsey Global Institute

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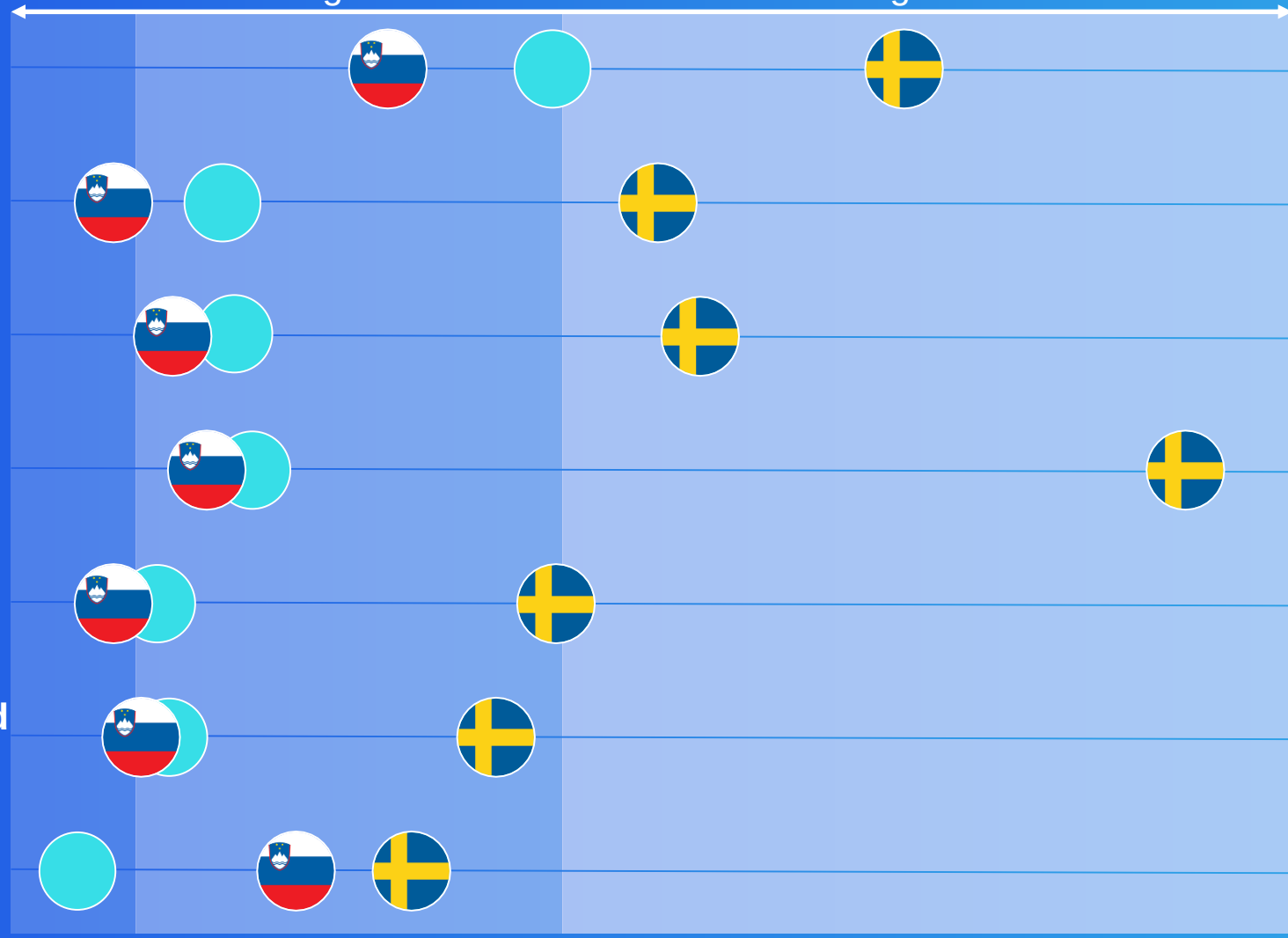
Slovenia's digital potential can be achieved by addressing gaps in the digitization level of private and public sectors

Slovenia
Digital Challengers (CEE)
Sweden as a digital frontrunner benchmark

Digitization level of selected sectors

Low: <~3% Average[1]: 3-10% High: >10%



- Finance and insurance
- Manufacturing
- Professional, scientific & technical services
- Utilities
- Trade (retail & wholesale)
- Transportation and warehousing
- Public administration

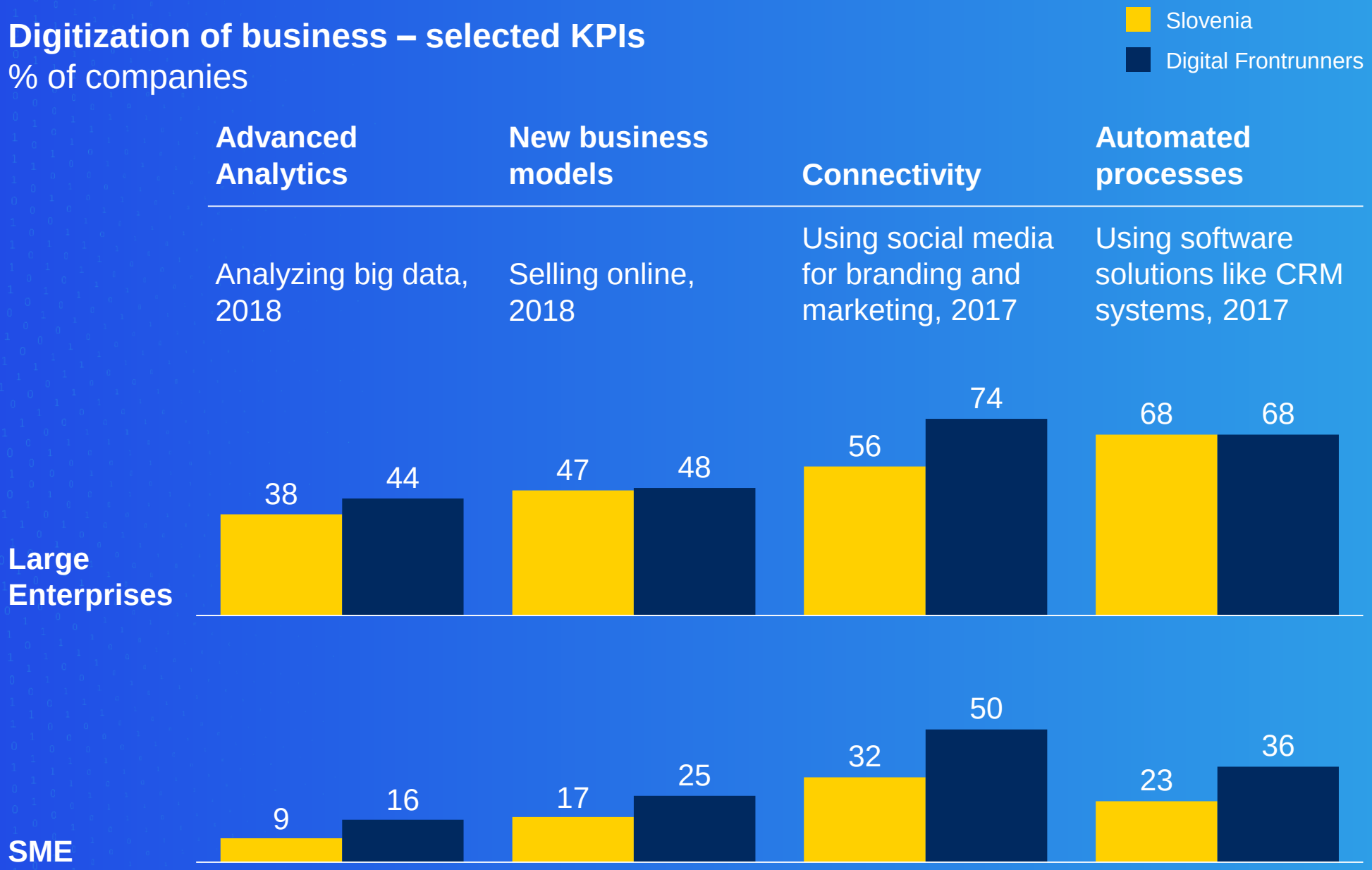
1 Average level of all sectors (excluding the most advanced ICT sector and finance)

SOURCE: Eurostat; Local institutes of statistics, McKinsey Global Institute

Large enterprises in Slovenia are in many aspects as digitized as Digital Frontrunners, however SMEs in Slovenia do not fully use the potential of digitization

Digitization of business – selected KPIs

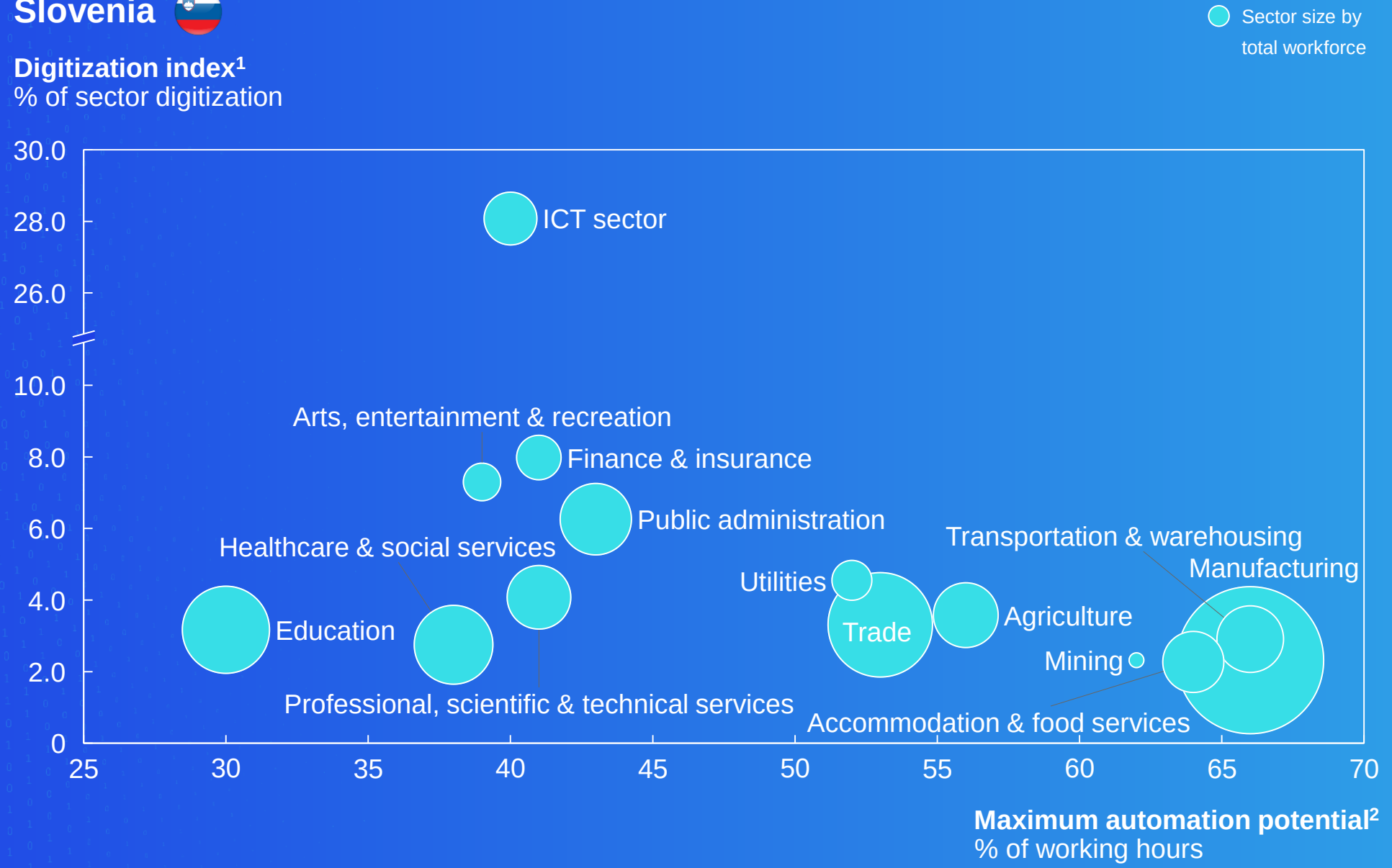
% of companies



SOURCE: Eurostat

Slovenia

The largest sectors in Slovenia in terms of employment are also the ones most likely to experience a labor market mismatch in the future



1 Estimates for sectors made in line with MGI methodology; construction & real estate sectors excluded due to lack of available data
2 Estimate for sectors made in line with MGI methodology by using Czech Republic, Hungary and Poland data as a proxy

SOURCE: Eurostat; Forbes; IHS; McKinsey Global Institute

Automation will drive substantial shift in required skill set towards technology and socials skills

Projected change in working hours 2016-2030[1], %

Basic cognitive skills

▼ 17

Physical and manual skills

▼ 16

Social and emotional skills

▲ 22

Technology skills

▲ 52

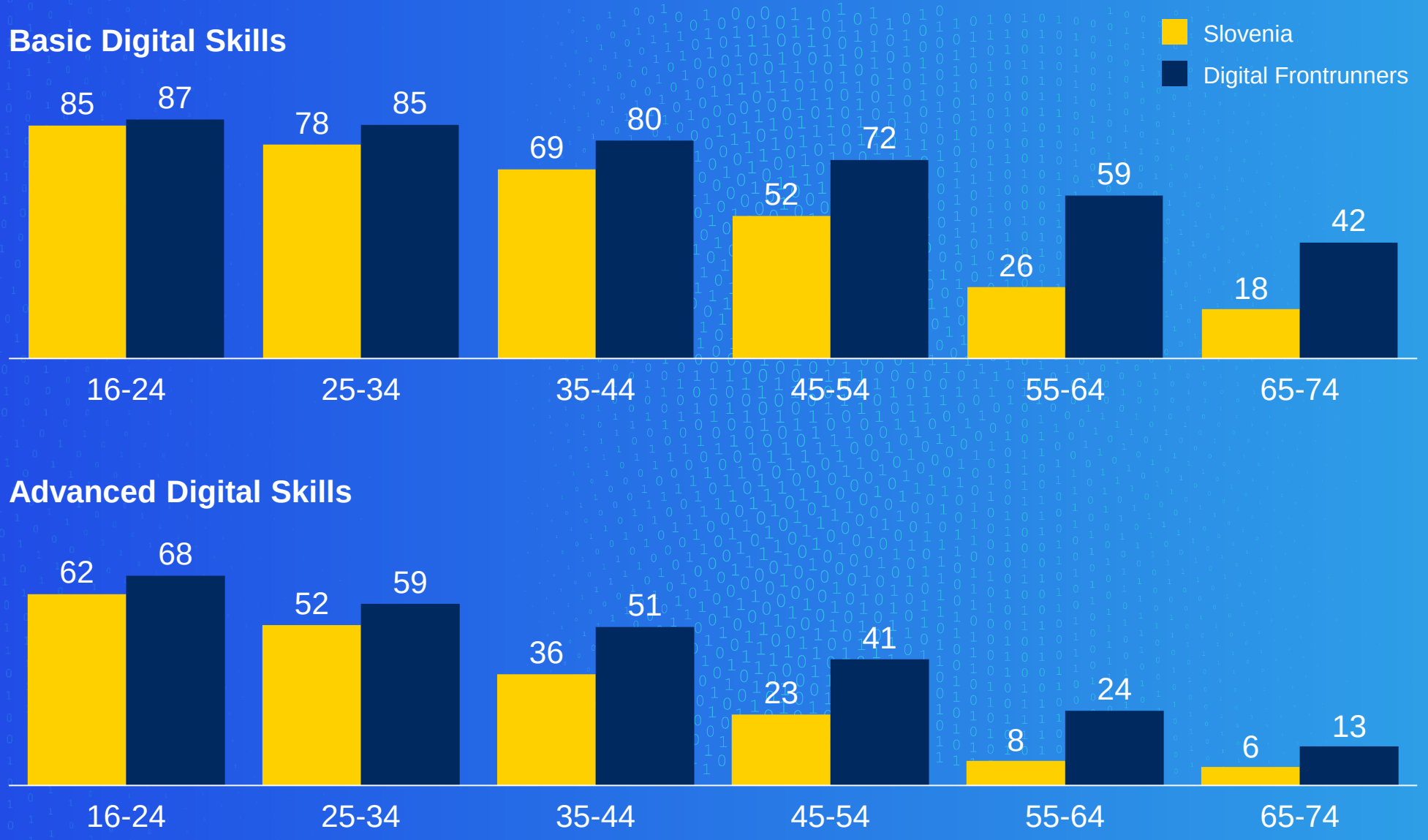
Direction of skill shift

1 Based on Western Europe estimates

SOURCE: McKinsey Global Institute

Digital Skills in Slovenia vs Digital Frontrunners by age group, %

Even though today Slovenian population has lower basic and advanced digital skills compared to Digital Frontrunners, younger population is reducing the gap



SOURCE: Eurostat, McKinsey analysis

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Two strengths Slovenia can build upon its Digital Challenger status

Good primary and secondary education quality in developing math and science literacy

– Math, reading and science literacy PISA[1] average of 509, above Digital Frontrunners' score of 505

Relatively well developed digital infrastructure

– Approx. 96% of the population with 4G access, at the level of Digital Frontrunners

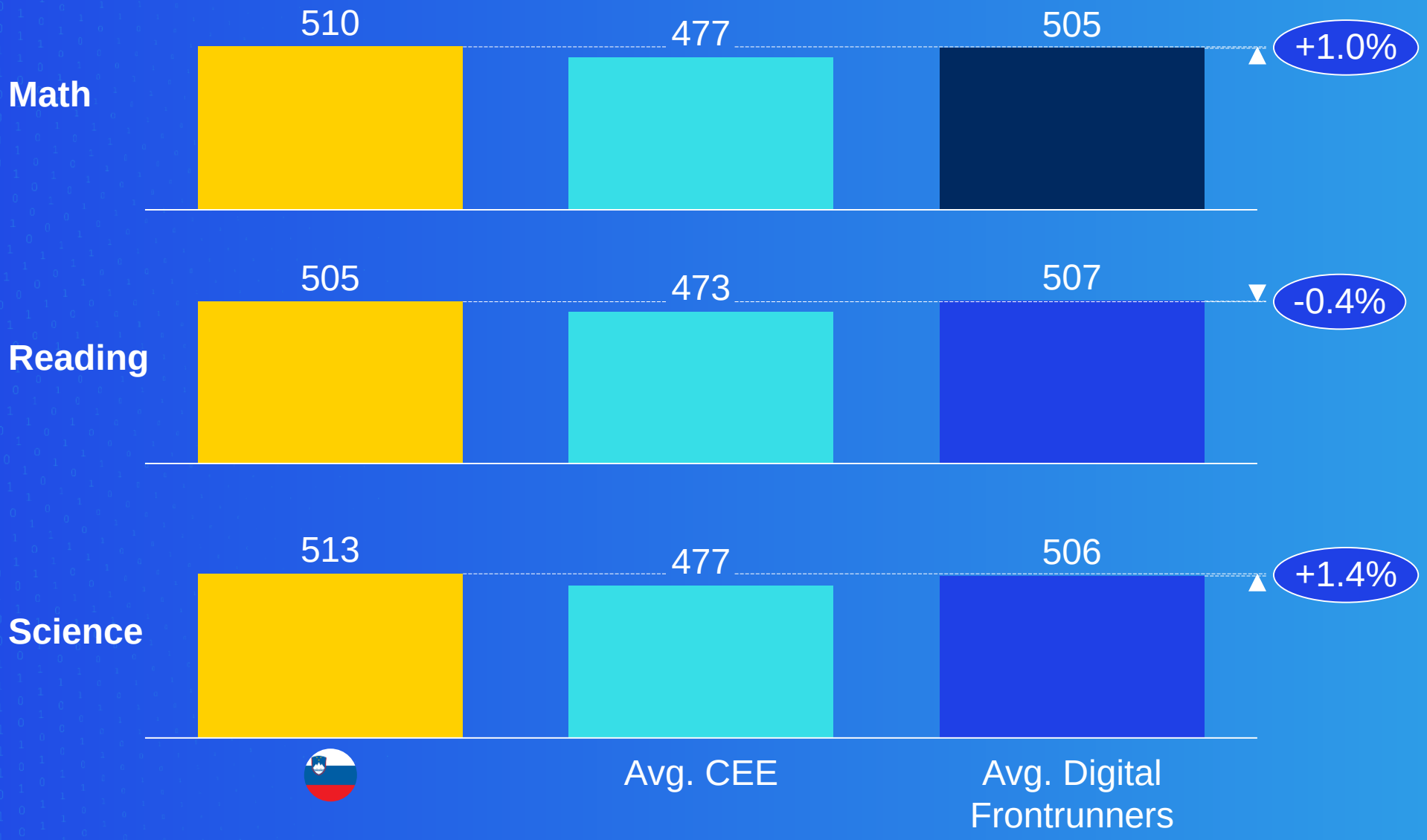
1 Program for International Student Assessment (PISA)

SOURCE: Eurostat, OECD

Scores in Math, Reading, Science Literacy

PISA (OECD) Synthetic scores, 2016

XX% Gap to Digital Frontrunners



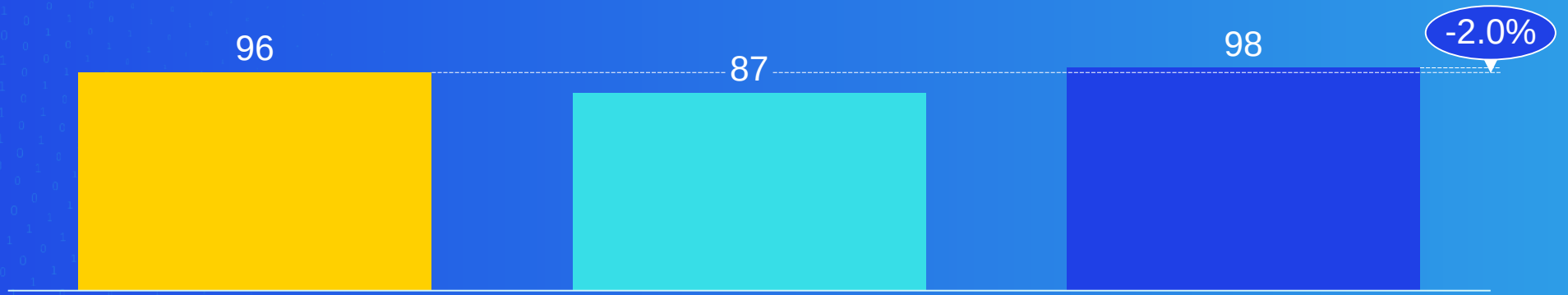
Math and science literacy in Slovenia is on par with Digital Frontrunners

SOURCE: OECD, PISA, World Bank

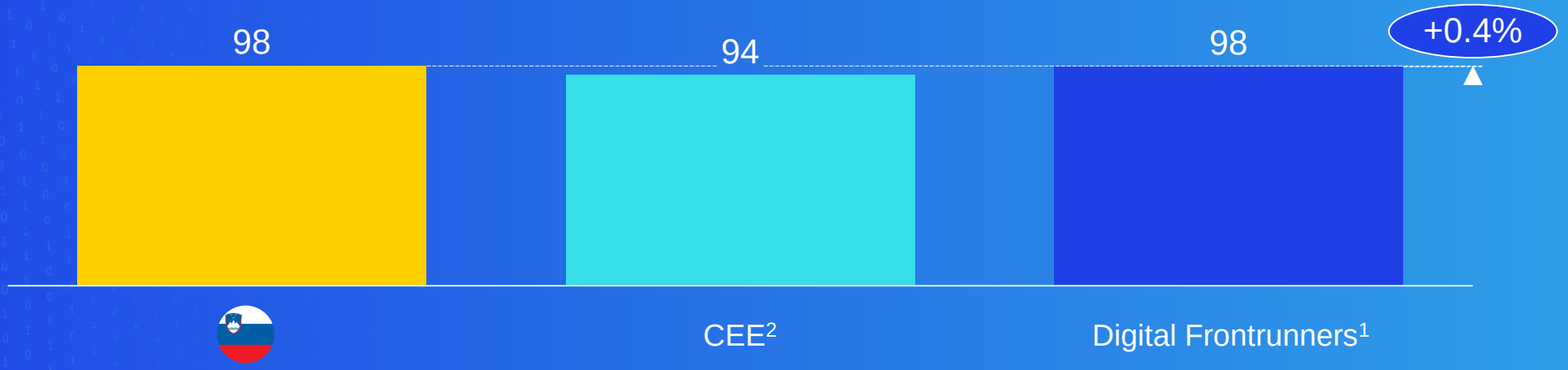
XX% Gap to Digital Frontrunners

There are no significant gaps in terms of access to fixed and mobile internet in Slovenia in comparison to Digital Frontrunners

Percentage of populated areas covered by 4G – measured as the average coverage of telecoms
% of the country



Households covered by the standard fixed broadband (availability)
% of the households



1 Digital Frontrunners: Belgium, Denmark, Estonia, Finland, Holland, Ireland, Norway, Luxemburg, Sweden
2 Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Sloveni

SOURCE: DESI 2018, World Economic Forum

To strengthen Slovenia's Digital Challenger status additional push can be done in three major areas

The adoption of digital tools in public and private sectors

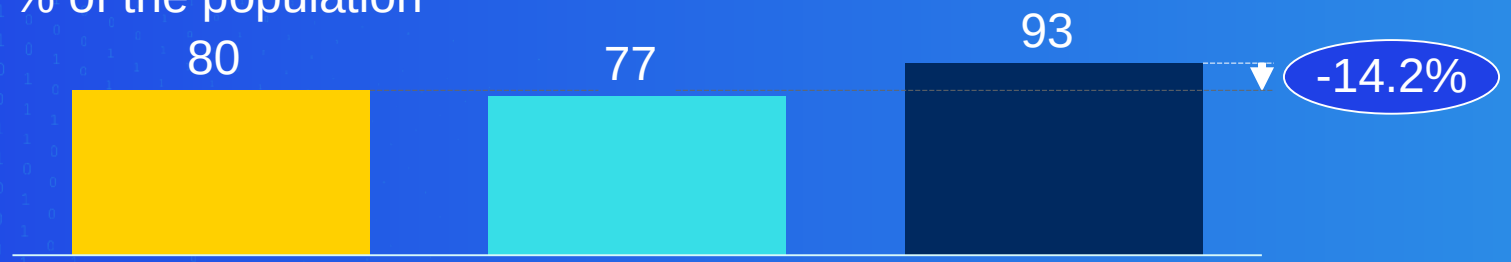
Development of digital and soft skills among the general population

Support innovation and entrepreneurship development and further ease of running a digital business

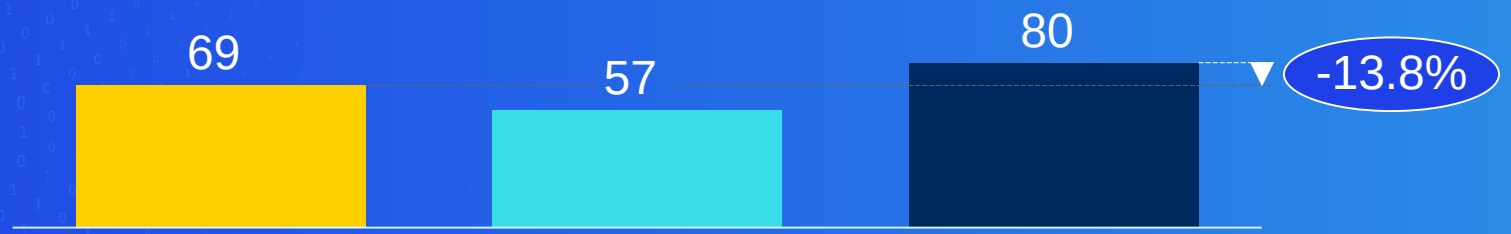
Although internet penetration gap is not very large, difference between Slovenia and Digital Frontrunners gets significant in terms of usage of internet services

XX% Gap to Digital Frontrunners

Individuals using Internet,
% of the population



Individuals looking for information online,
% of the population



Individuals who used online banking,
% of the population[1]

CEE

Digital Frontrunners

1 2017

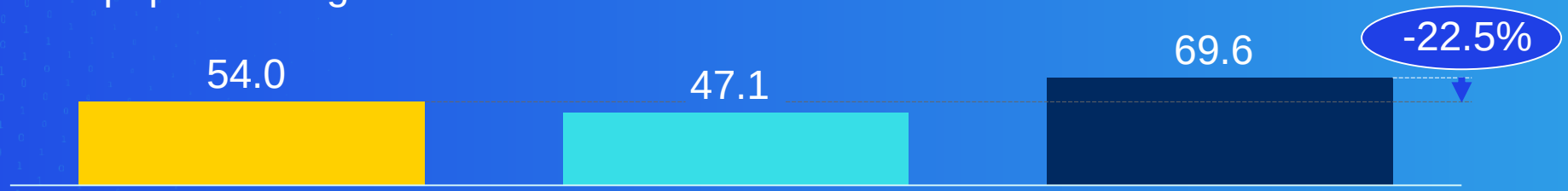
SOURCE: DESI 2018, Eurostat

"In CEE people use internet mostly to operate basic operations (e.g., posts on social media) instead of the full spectrum of possibilities that connectivity provides

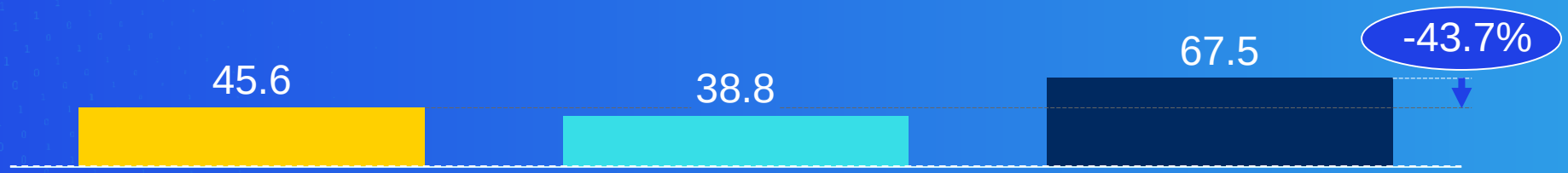
Significant gap is observed in terms of digital skills in Slovenia against Digital Frontrunners

Basic or Above Basic Digital Skills[1]
% of population aged 16-74

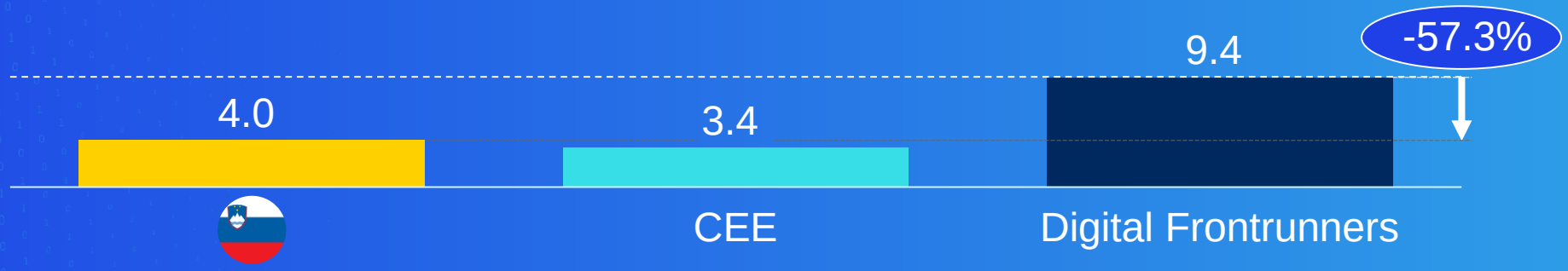
XX% Gap to Digital Frontrunners



Basic or Above Basic Digital Skills - Software for content manipulation[2],
% of internet users



Above Basic Digital Skills - Individuals who have written a computer program,
% of the population aged 16-74



1 Individuals not using internet are classified without digital skills. To be classified "basic or above basic" on the overall indicator 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.
2 Software skills for content manipulation refer to the ability to create and edit new content (from word processing to images and video); integrate and re-elaborate previous knowledge and content; produce creative expressions, media outputs and programming; deal with and apply intellectual property rights and licenses.

SOURCE: DESI 2018, Eurostat

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10 recommendations to increase digitization in Slovenia

Public sector

1. **Build skillset for the future** by developing a wide-ranging reskilling strategy, updating youth education for the future and actively counteracting brain drain
2. **Support technology adoption in the public sector** by speeding up the development of online public services and its adoption
3. **Support technology adoption among businesses** by promoting digitization benefits and digital transformation, enabling e-commerce through favorable regulation and incentivizing companies to use digital tools
4. **Strengthen regional cross-border digital collaboration** by creating a strong digital pillar within regional collaboration platforms and ensuring standardized & flexible digital policy solutions
5. **Improve startup eco-system** by developing entrepreneurial talent pool and, supporting startup hubs, increasing and simplifying access to capital

Private sector

6. **Invest in human capital** by preparing talent strategy for the digital economy, updating approach to recruiting and actively driving reskilling
7. **Actively adopt technology and innovation** by adapting your business model and leveraging digital tools in both revenue and cost management
8. **Embrace a pro-digital organizational culture** by ensuring role modeling from top leadership and implementing reinforcing mechanisms to reward adoption digital

Individuals

9. **Prepare for the digital economy** by investing in life-long learning, especially in competencies that are hard to automate
10. **Take advantage of digital tools** by leveraging digital platforms and tools in everyday life

The digital opportunity in Slovenia – summary

10%

Digital economy annual growth in Sweden – Digital Challengers countries and Slovenia may aspire to such a growth dynamic in the future

3x

Slower growth of the Digital Economy compared to the Non-Digital economy – still with a huge upside

2.1 bn euro

Additional GDP potential can be achieved by digital economy in Slovenia by 2025

Adoption of digital tools in public and private sectors and development of digital skills among the general population are essential to fully realize the potential of the digital economy in Slovenia

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Available at:

Digitalchallengers.mckinsey.com

Thank you