European Commission

Digital Scoreboard 2016 and other information relevant for decisions about Digital Innovation Hubs

Czech Republic

<u>Accompanied by the WG1 Report on Digital Innovation Hubs</u>:

https://ec.europa.eu/futurium/en/content/report-wg1-digital-innovation-hubs-mainstreaming-digital-innovation-across-all-sectors-final

#DigitiseEU

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The Czech Republic's national strategy for digitising industry

European Commission

PRŮMYSL 4.0 INDUSTRY 4.0

Průmysl 4.0 (Industry 4.0)

- The initative **Industry 4.0** was prepared by the **Ministry of Industry and Trade** and approved by the Government in August **2016**
- It involves **different ministries** according to relevant measures, business associations, trade unions and academia.
- Has become a part of the newly established **Alliance Society 4.0** and is taken into consideration by the **Czech Action Plan for Society 4.0**.

http://www.mpo.cz/en/industry/industry-four/

Funding – there are no specific resources for Industry 4.0, but it is possible to draw from various sources:

- **Operational Program Enterprise and Innovation (OP PIK):** key financial instrument to support the implementation of P4.0 national strategy; **120bn CZK (4,5bn EUR)**
- Additional operation programmes from the the Ministry of Education, Youth and Sports, and the Ministry of Social Affairs are allocating **CZK 145bn (5.48bn EUR)** with the aim to address educational and social digital transformation
- The Ministry of Industry and Trade is also preparing a **National Innovation Fund (NIF)** subsidised with **CZK 1.3bn (49M EUR)** to activate the venture capital market

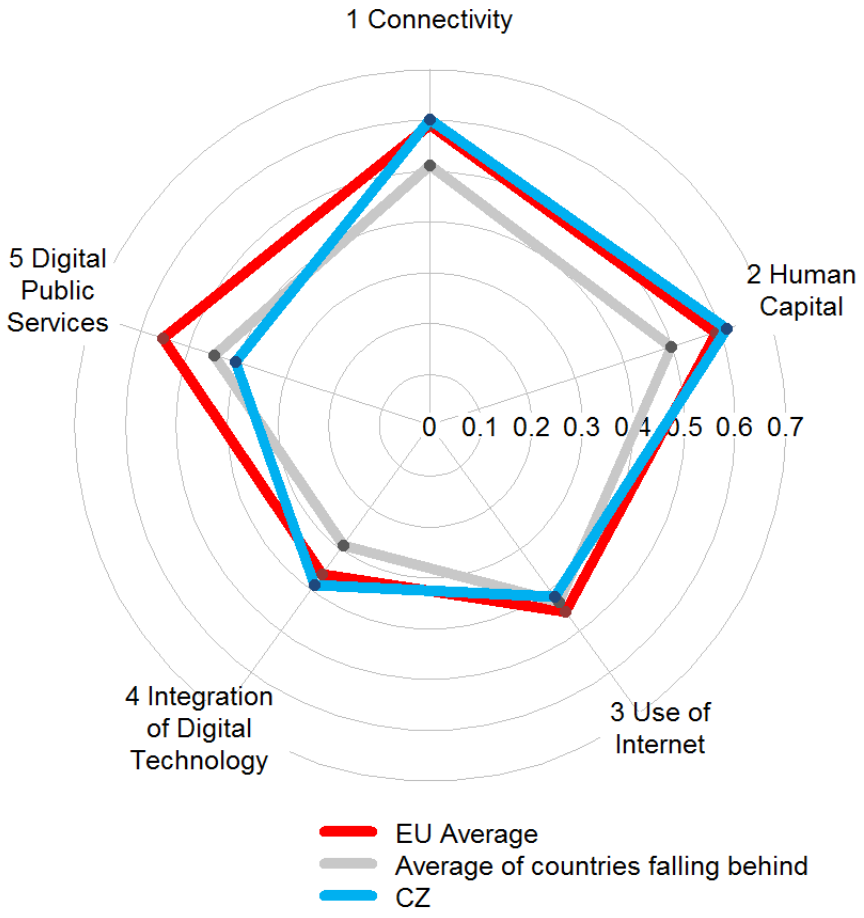
Policy Lever(s)	Bottom-up approach, public financing, orientation towards skills.
Funding Model	Funding model based on already existing Operation Programmes of the involved ministries and the Technological Agency of the Czech Republic.
Target audience(s)	Policy makers, private sector, R&D organisations, industry associations, academia.
Concepts & Focus Areas	Timely response to the market and industry changes by creating a flexible education system, adapting the labour market and regulatory framework.
Key drivers	Active involvement of the policy makers from key Ministries, representatives from industry, business, research and education.
Key barriers	Reluctance to change, insufficient knowledge of Industry 4.0, deficient coverage of broadband connection in some regions.
Implementation strategy	A team of experts involved in the creation of the Action Plan for Alliance Society 4.0, dissemination activities and awareness raising already in place.
Results achieved	No results available, the initiative is still in the early stage of implementation.

For more information please refer to the individual report per Member State on the national and regional initiatives on Digitising European Industry available on https://ec.europa.eu/futurium/en/implementing-digitising-european-industry-actions/national-initiatives-digitising-industry

The Czech Republic's performance in the DESI 2016

The Czech Republic ranks 17 among EU countries.

It is part of the group of countries that are falling behind.

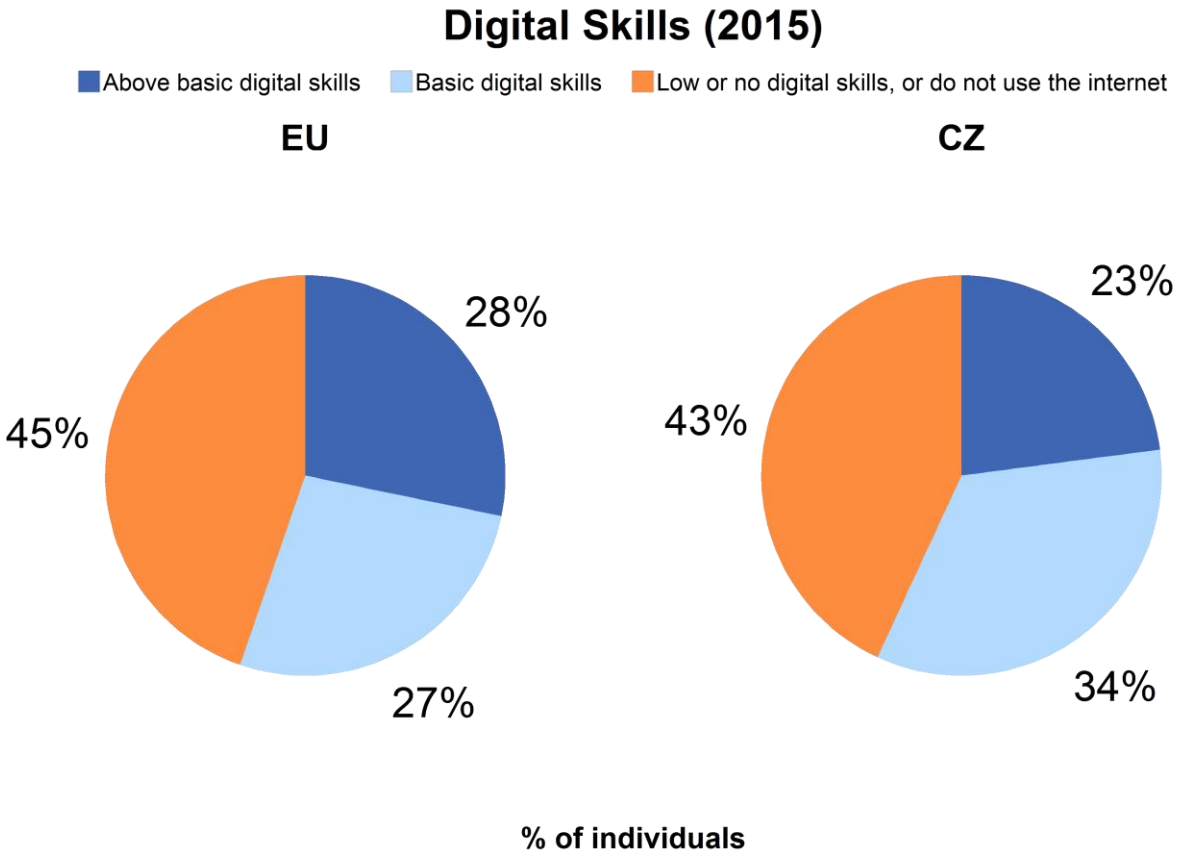


Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Human Capital: Digital Skills

In the Czech Republic 34% of citizens have basic digital skills (27% in the EU) and 23% have above basic digital skills (28% in the EU).



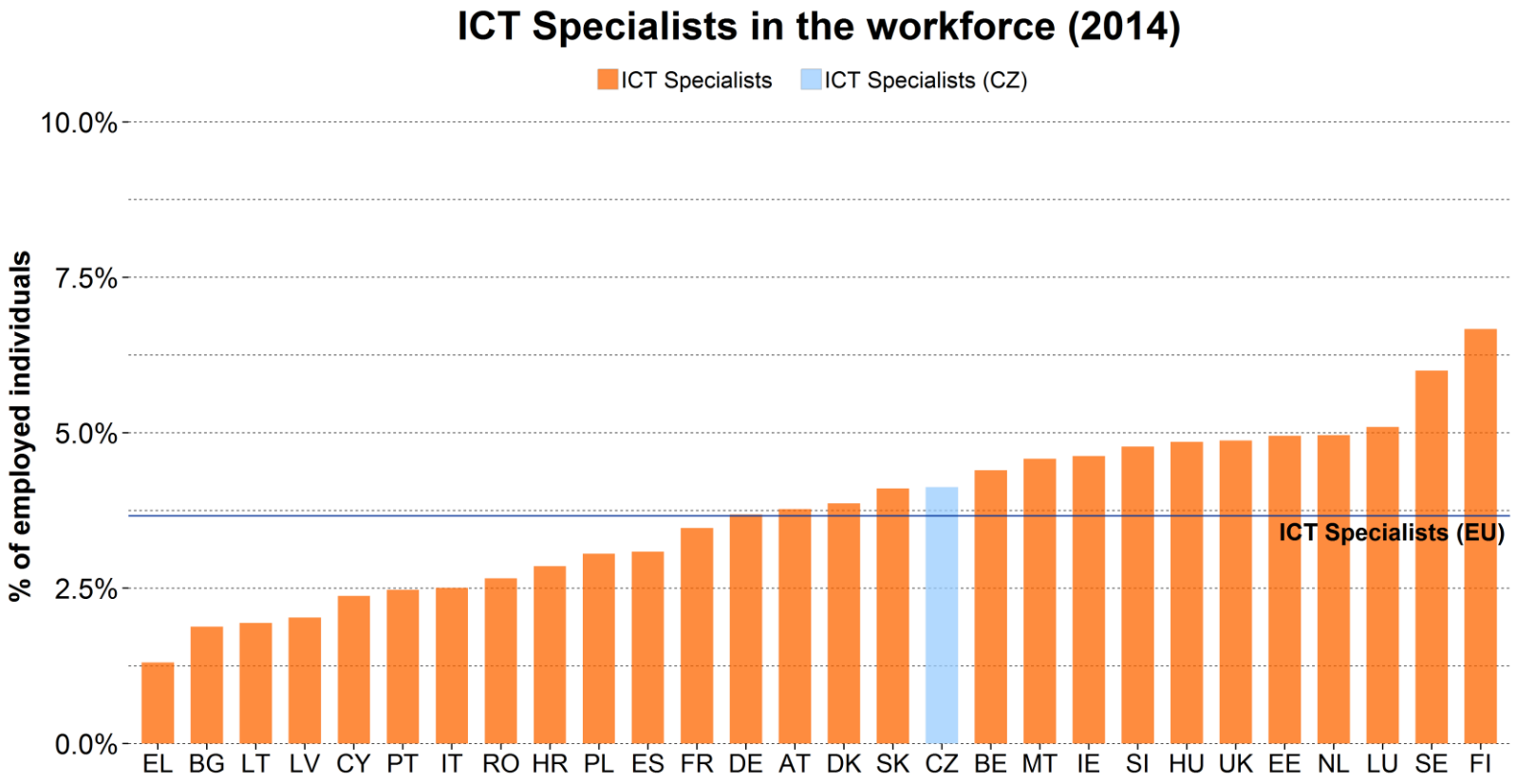
Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: Eurostat - Community survey on ICT usage in Households and by Individuals

Human Capital: ICT Specialists in the workforce

In the Czech Republic ICT Specialists account for 4.1% of the workforce (3.7% in the EU).



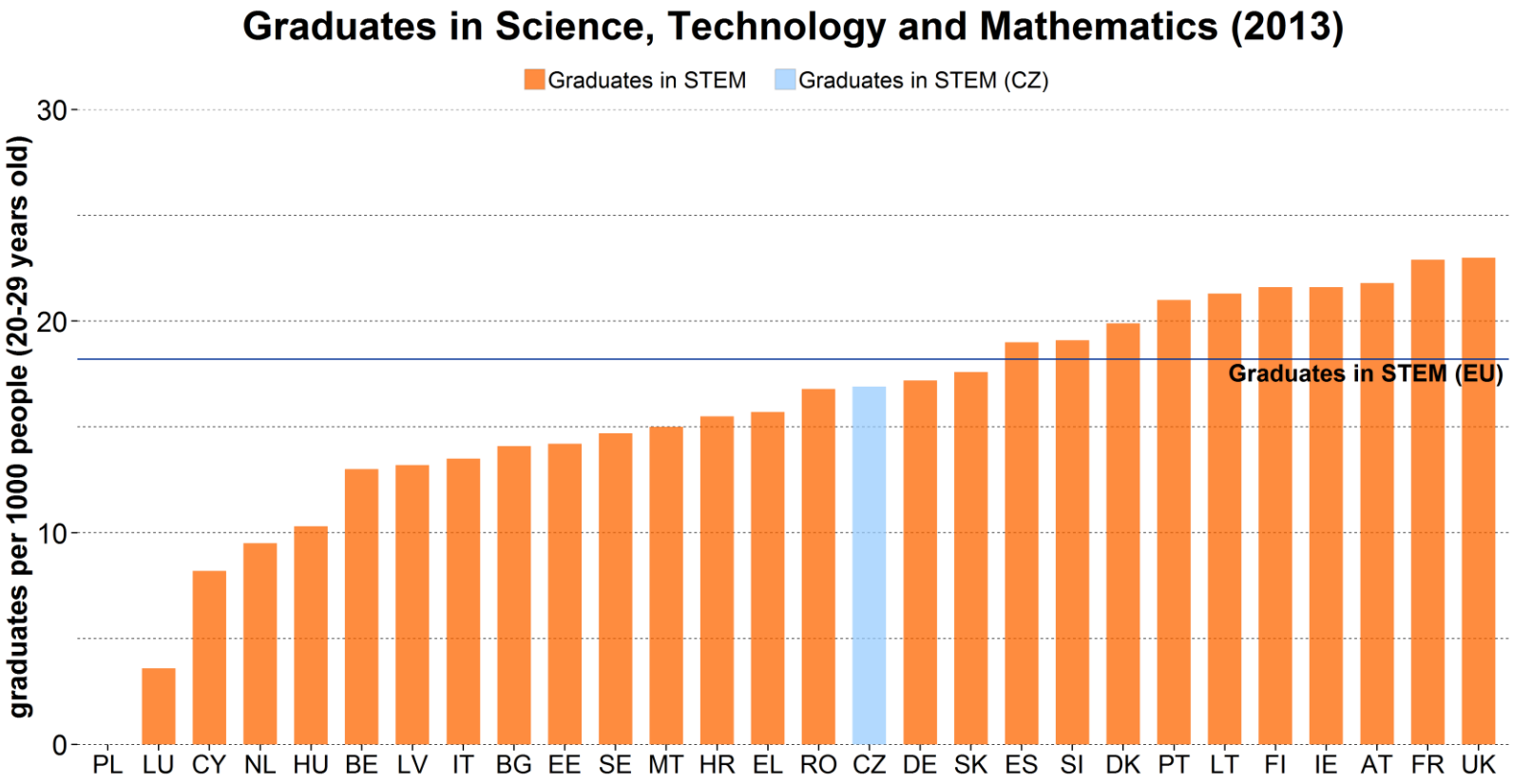
Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: Eurostat - Labour force survey

Human Capital: Graduates in STEM (Science, Technology and Mathematics)

The Czech Republic has 17 graduates in STEM per each 1000 people aged 20-29 years old (18 in the EU).



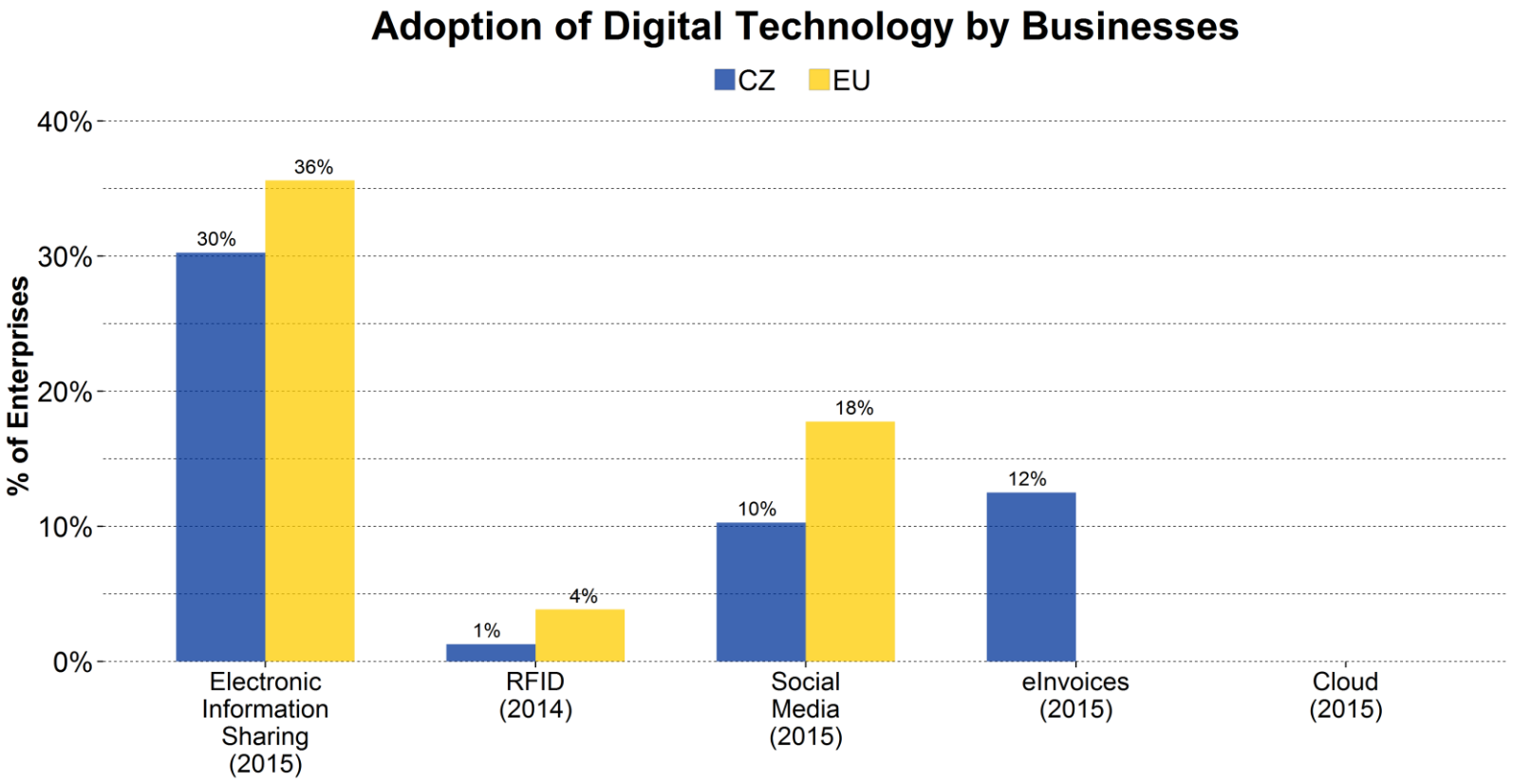
Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: Eurostat - Science and technology graduates

Integration of Digital Technology: Business digitization

Businesses in the Czech Republic are adopting different digital technologies to enhance productivity, such as sharing internal information electronically or using RFID, eInvoicing, Social Media and Cloud.



Digital Scoreboard 2016

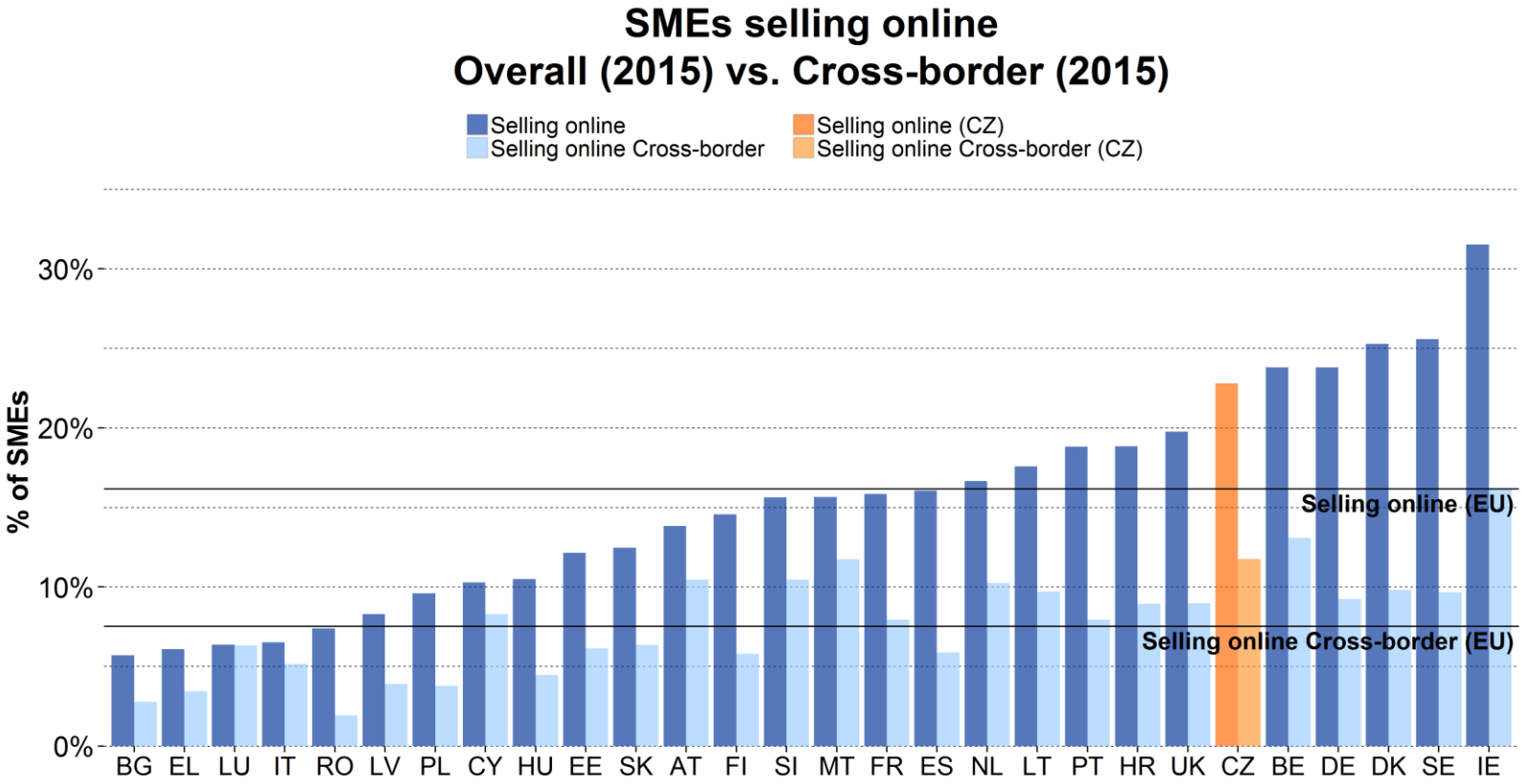
https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: Eurostat - Community survey on ICT usage and eCommerce in Enterprises

Integration of Digital Technology: SMEs selling online

In the Czech Republic 23% of SMEs sell online (16% in the EU).

12% of Czech SMEs sell online to other EU countries (7.5% in the EU).



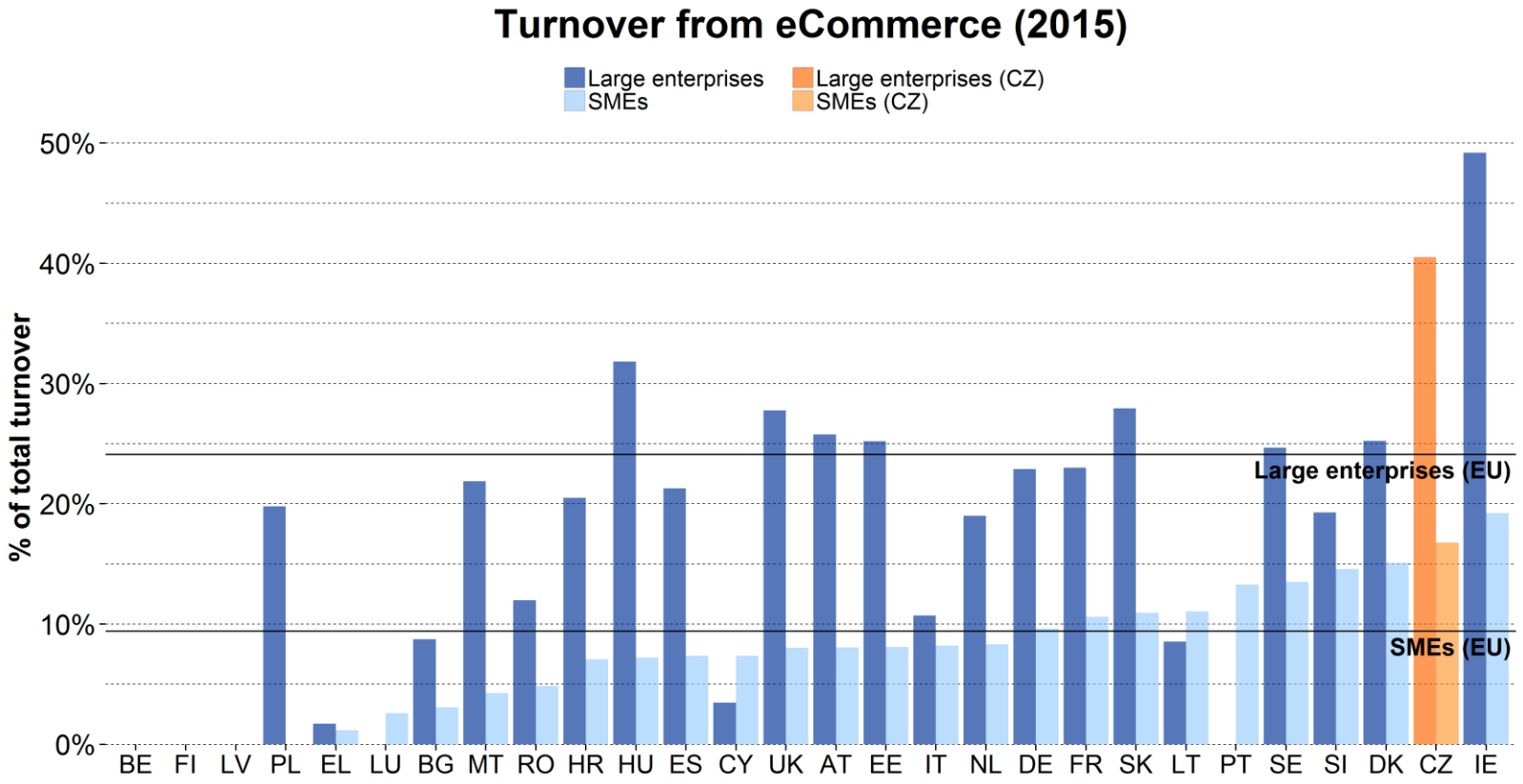
Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: Eurostat - Community survey on ICT usage and eCommerce in Enterprises

Integration of Digital Technology: SME Turnover from eCommerce

SMEs in the Czech Republic obtain on average 17% of their turnover from eCommerce (9.4% in the EU). Large enterprises derive on average 40% of their turnover from eCommerce (24% in the EU).



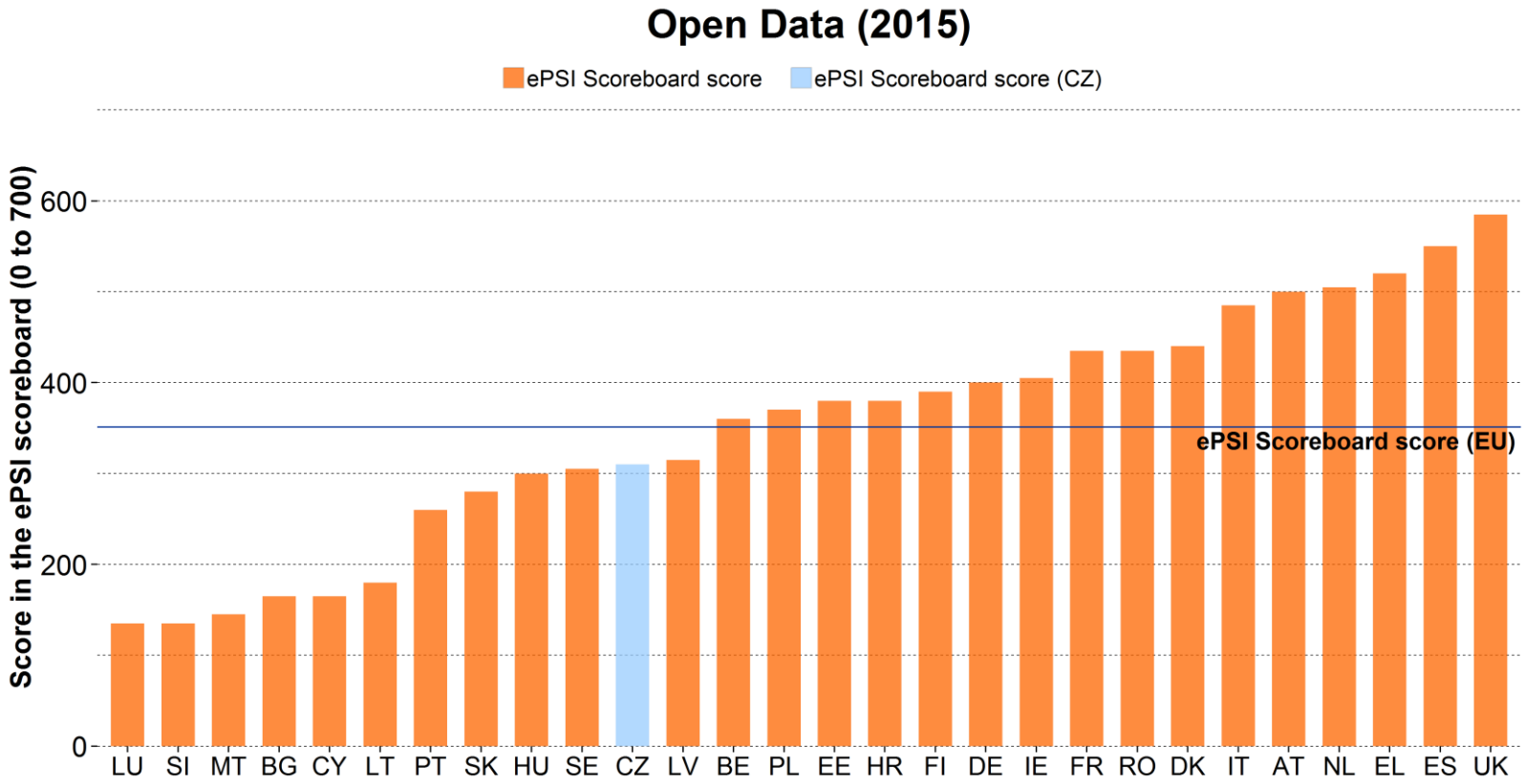
Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: Eurostat - Community survey on ICT usage and eCommerce in Enterprises

Digital Public Services: Open Data

The Czech Republic scores 310 out of 700 in the European Public Sector Information scoreboard, against an overall score of 351 out of 700 for the European Union.

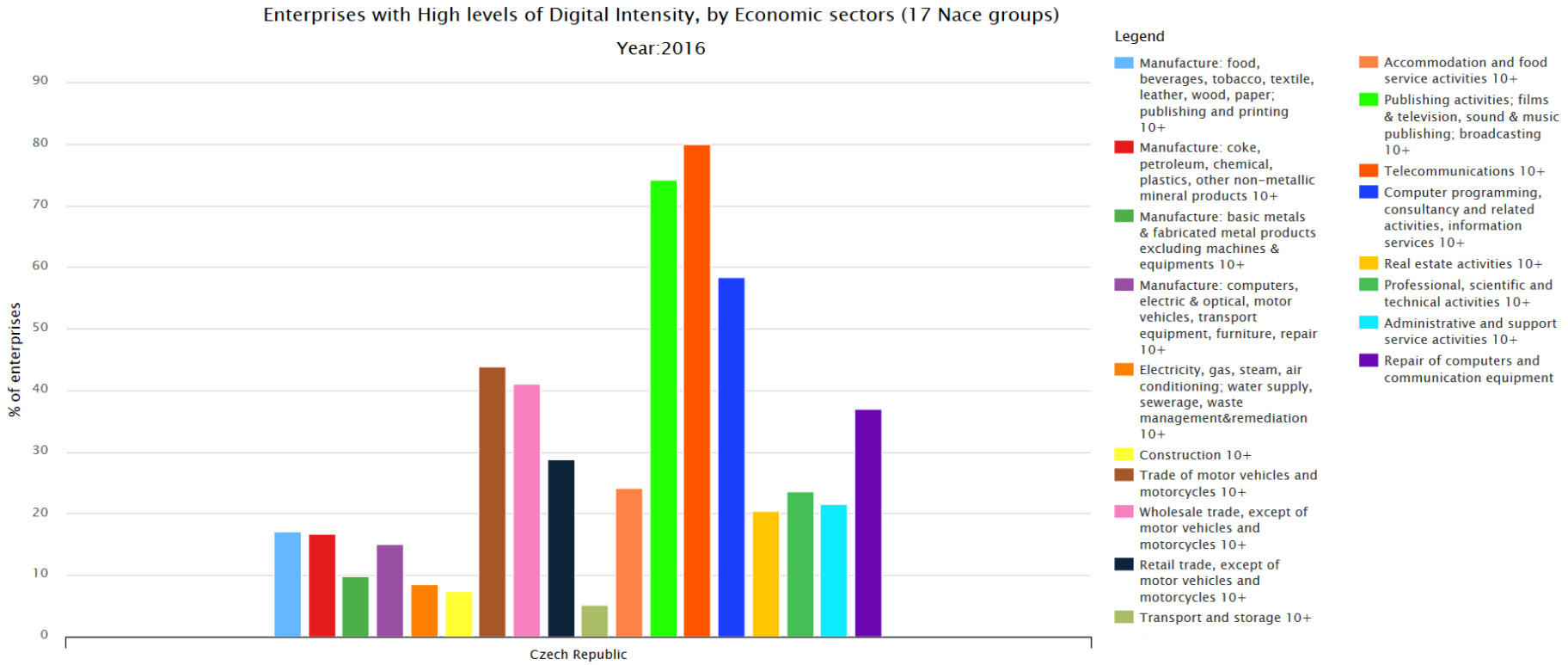


Digital Scoreboard 2016

https://ec.europa.eu/digital-single-market/en/scoreboard/czech-republic

Source: The Public Sector Information Scoreboard is a 'crowdsourced' tool to measure the status of Open Data and PSI re-use throughout the EU.

Enterprises with high level of Digital Intensity by economic sectors in the Czech Republic



Sectors where less than 30% of the companies have a high level of digital intensity

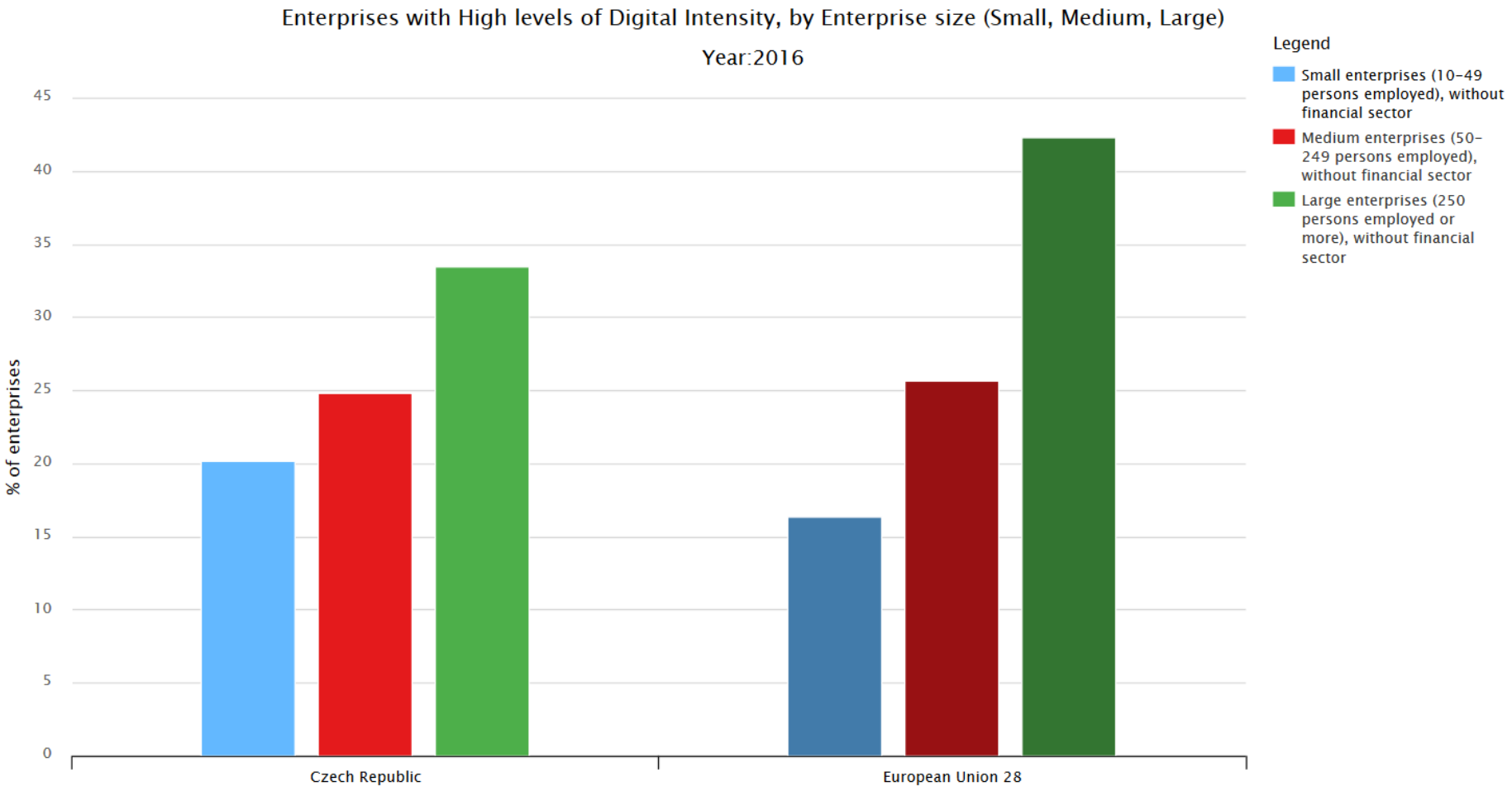
- Manufacture: food, beverages, tobacco, textile, leather, wood, paper; publishing and printing 10+
- Manufacture: coke, petroleum, chemical, plastics, other non-metallic mineral products 10+
- Manufacture: basic metals & fabricated metal products excluding machines & equipment 10+
- Manufacture: computers, electric & optical, motor vehicles, transport equipment, furniture, repair 10+
- Electricity, gas, steam, air conditioning; water supply, sewerage, waste management & remediation
- Construction 10+
- Retail trade, except of motor vehicles and motorcycles 10+
- Transport and storage 10+
- Accommodation and food service activities 10+
- Real estate activities 10+
- Administrative and support service activities 10+
- Professional, scientific and technical activities 10+

Sectors where more than 30% of the companies have a high level of digital intensity:

- Trade of motor vehicles and motorcycles 10+
- Wholesale trade, except of motor vehicles and motorcycles 10+
- Publishing activities; films & television, sound & music publishing; broadcasting 10+
- Telecommunications 10+
- Computer programming, consultancy and related activities, information services 10+
- Repair of computers and communication equipment

http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={%22indicator-group%22:%22ebusiness%22,%22indicator%22:%22e_di_hivhi%22,%22breakdown-group%22:%22econsector%22,%22unit-measure%22:%22pc_ent%22,%22time-period%22:%222016%22,%22ref-area%22:[%22CZ%22]}

Enterprises with high levels of digital intensity, by Enterprise size

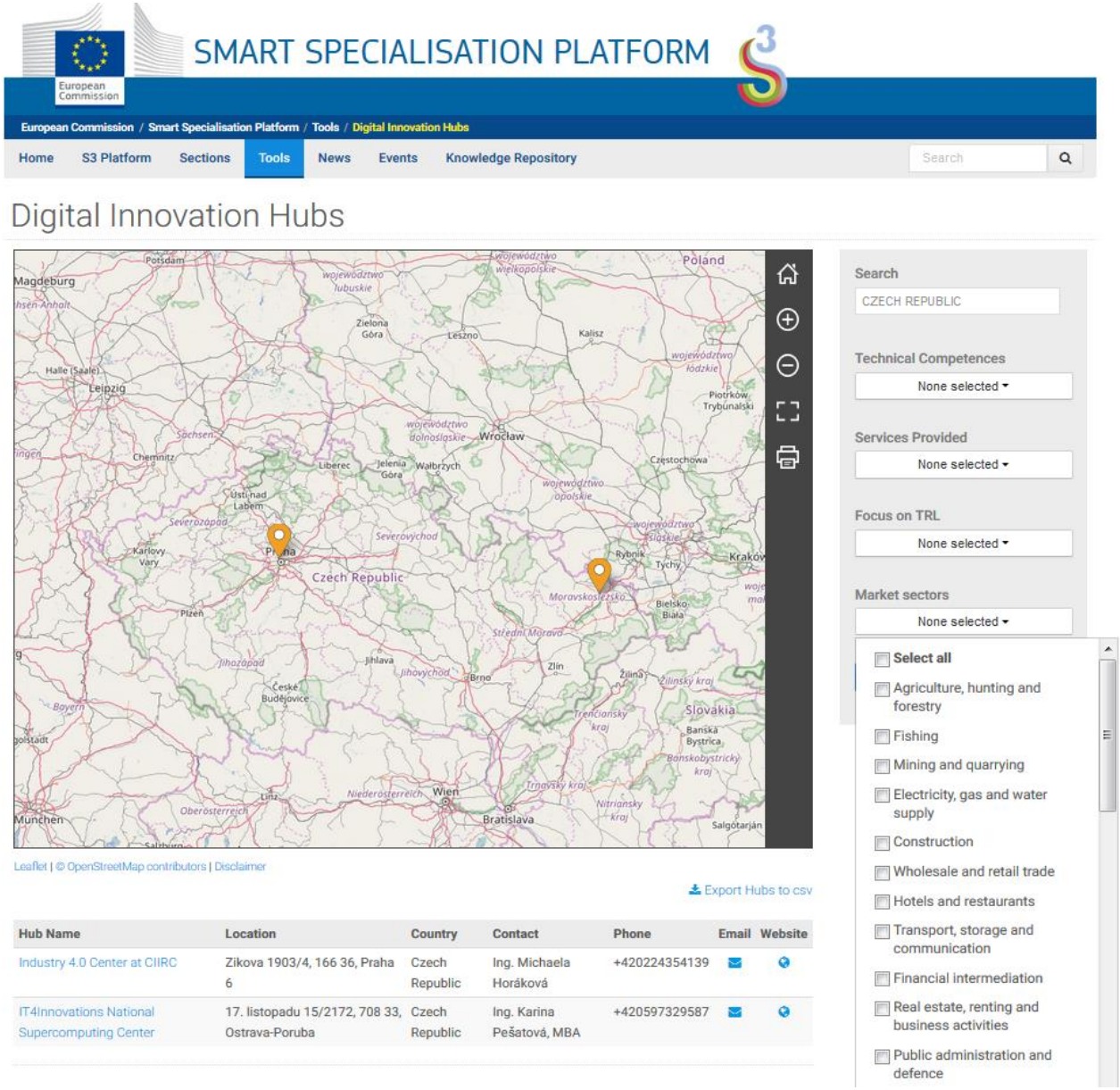


http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={%22indicator-group%22:%22ebusiness%22,%22indicator%22:%22e_di_hivhi%22,%22breakdown-group%22:%22byENTsize_s_m_l%22,%22unit-measure%22:%22pc_ent%22,%22time-period%22:%222016%22,%22ref-area%22:[%22CZ%22,%22EU28%22]}

Digital Innovation Hubs Catalogue
The Czech Republic case

The version available presents:

- Fact-sheets with profile, contact data, service examples for regional, national, and EU-supported DIHs
- Map-based search tool by technical competences, market sector, services



http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool

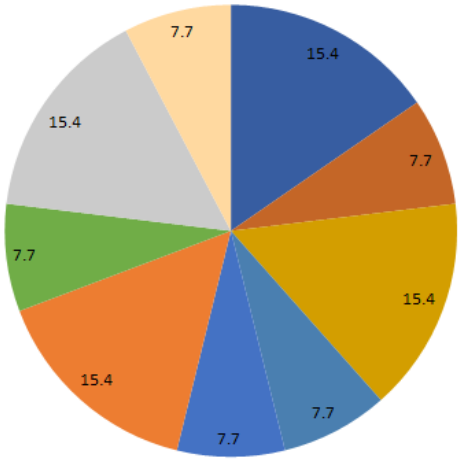
JRC-B3-DIH@ec.europa.eu

The Catalogue of Digital Innovation Hubs was created by TNO in cooperation with JRC of the European Commission

Services provided and types of customers supported by DIHs in the Czech Republic - Analysis

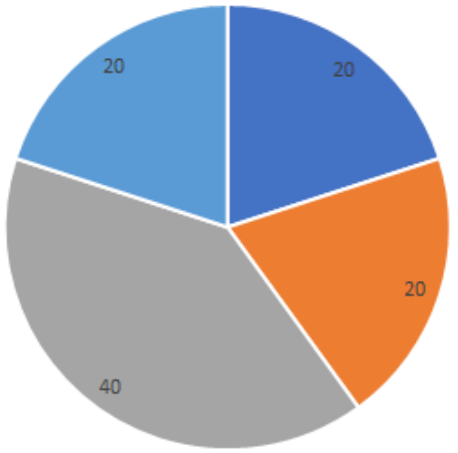
European Commission

Types of services provided (%)



- Concept validation and prototying
- Awareness creation
- Commercial infrastructure
- Ecosystem building, scouting, brokerage, networking
- Incubator/accelerator support
- Mentoring
- Other (description)
- Testing and validation
- Voice of the customer, product consortia
- Access to Funding and Investor Readiness Services
- Collaborative Research
- Digital Maturity Assessment
- Education and skills development
- Market intelligence
- N/A
- Pre-competitive series production
- Visioning and Strategy Development for Businesses

Types of customers supported (%)



- Large companies, multi-nationals
- N/A
- SMEs (<250 employees)
- MidCaps (between €2-10 billion turnover)
- Research organisations
- Start-up companies

The analysis of the data presented was conducted by TNO, the detailed data is provided in the Catalogue of DIHs available on: http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool

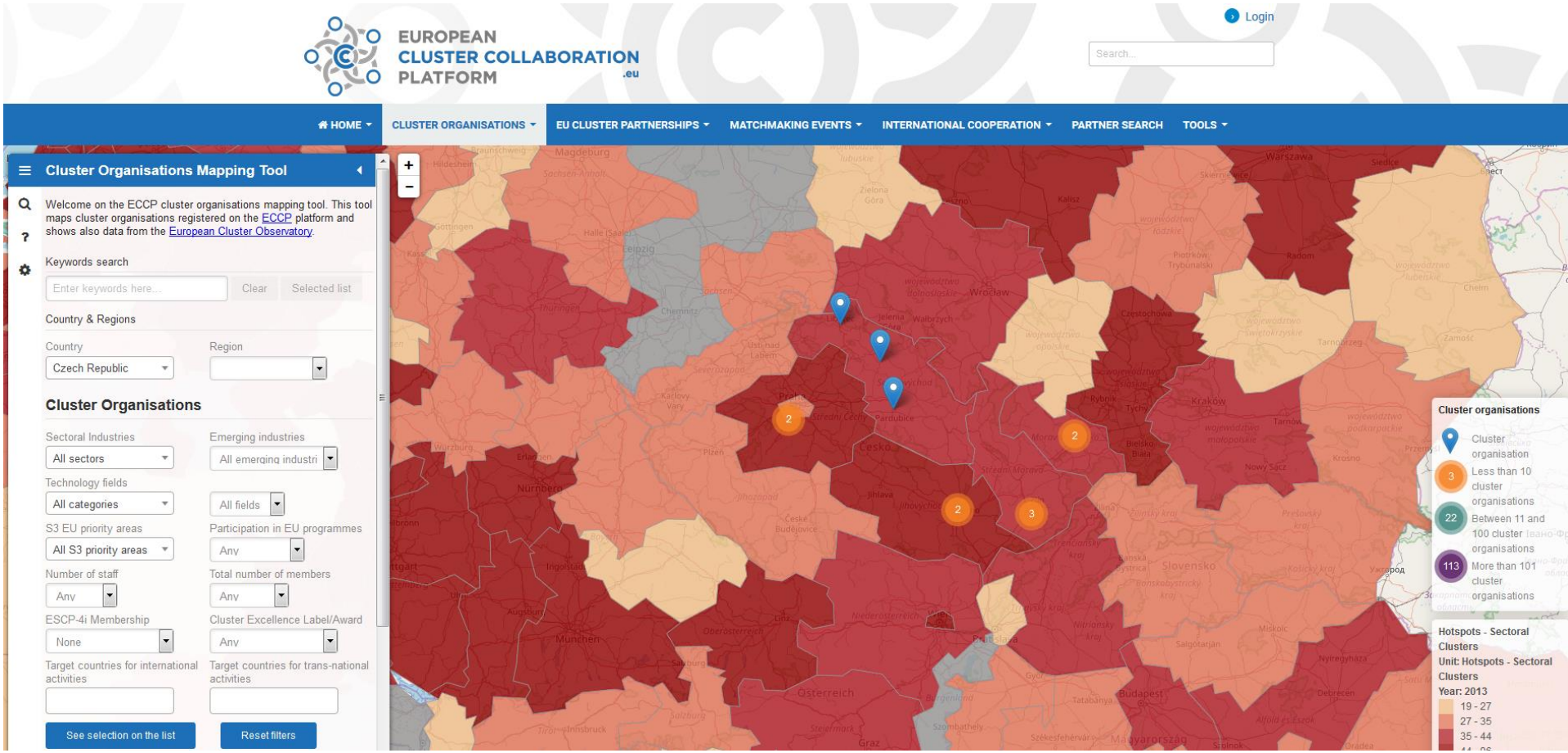
Competence centers/DIHs funded by EU projects in the Czech Republic in H2020

Project Topic Code	Project Acronym	Project Duration	Project End Date	Participant Legal Name	Participant Role	Participant Short Name	Core Legal Entity Type	Research Organisation?
FOF-12-2017	CloudiFacturing	42	31/01/2018	FERRAM STROJIRNA, s.r.o.	PARTICIPANT	FERRAM	PRIVATE	No
FOF-12-2017	CloudiFacturing	42	31/08/2021	VYSOKA SKOLA BANSKA - TECHNICKA UNIVERZITA OSTRAVA	PARTICIPANT	IT4I	PUBLIC	No
ICT-04-2017	TETRAMAX	48	31/08/2021	VYSOKA SKOLA BANSKA - TECHNICKA UNIVERZITA OSTRAVA	PARTICIPANT	IT4I	PUBLIC	No
ICT-04-2017	SmartEEs	36	13/09/2020	AMIRES SRO	PARTICIPANT	AMI	PRIVATE	No

Competence centers/DIHs funded by EU projects in the Czech Republic in FP7

Project Number	Project Acronym	Project Duration	Project Start Date	Project End Date	Project Number of Participants	Participant Short Name	Participant Legal Name	Participant Role	Organisation Type
609306	INTEFIX	36	01-Jul-2013	30-Jun-2016	33	RCMT	CESKE VYSOKE UCENI TECHNICKE V PRAZE	Participant	HES
609306	INTEFIX	36	01-Jul-2013	30-Jun-2016	33	TYC	STROJIRNA TYC SRO	Participant	PRC
609306	INTEFIX	36	01-Jul-2013	30-Jun-2016	33	COMPOTECH	COMPO TECH PLUS SPOL SRO	Participant	PRC
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	CVUT	CESKE VYSOKE UCENI TECHNICKE V PRAZE	Participant	HES
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	SURO	STATNI USTAV RADIACNI OCHRANY v.v.i.	Participant	REC

Clusters in the Czech Republic [1-2]



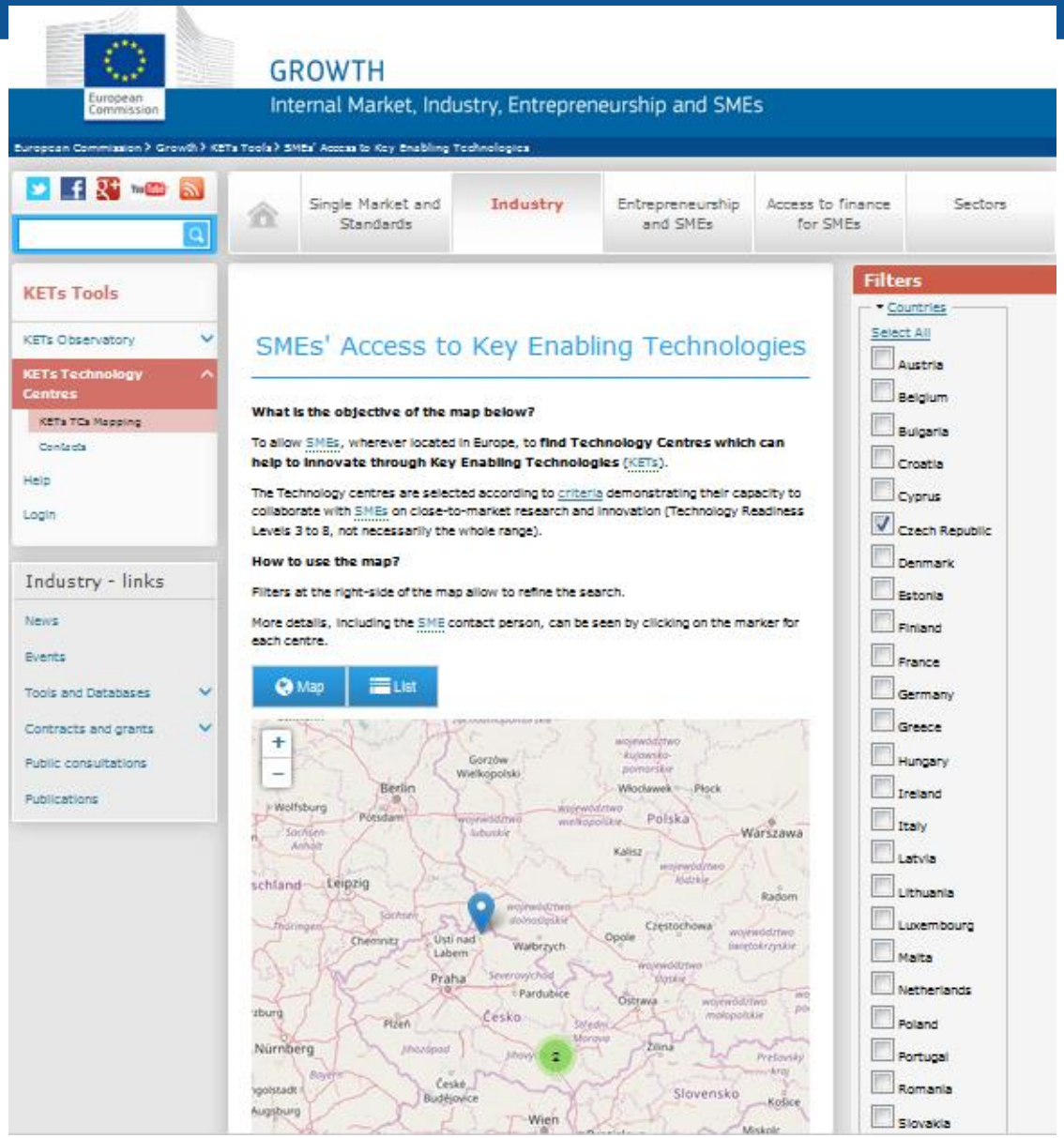
https://www.clustercollaboration.eu/print/cluster-list?combine=&country_code=cz

Please see WG1 report

Clusters in the Czech Republic [2-2]

http://www.czechinvest.org/podporene-klastry-v-cr

KETs in the Czech Republic



https://ec.europa.eu/growth/tools-databases/kets-tools/kets-tc/map?field_postal_address_country[]=CZ

eit Digital Co-Location Centres

Co-Location Centres are meeting places, melting pots, hubs, where planned, as well as ad hoc, meetings and events take place.

They bring together talents, ideas, technologies and investments that turn the Co-Location Centres into vibrant hot spots where students, researchers, engineers and business developers cross-pollinate to succeed in the market.

https://masterschool.eitdigital.eu/about-us/co-location-centres/

No eit Digital Co-Location Centre in the Czech Republic

Pilot Lines in Nanotechnology and Advanced Materials

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Investment and Business Development Agency

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Introduction

The dynamically developing nanotechnology sector is penetrating a full range of various fields. In the Czech Republic, this primarily involves the automotive, aviation, textile and chemical industries, which have a strong tradition and most to gain from the use of nanotechnology

The absolute majority of domestic firms involved in nanotechnology are companies that need to rapidly internationalise and find business partners abroad in order to be successful. Elmarco, TESCAN ORSAY HOLDING or Contipro are great examples of such companies.

An example of successful internationalisation of Czech institutions is the Memorandum on Cooperation between CzechInvest Agency and the Nano Technology Research Association of South Korea, which was concluded in 2012. In 2011, the Technical University of Liberec signed the Agreement on Cooperation with Shinshu University in Japan.

http://www.czechinvest.org/en/nanotechnology-advanced-materials

Planned investments, allocated resources, in Czech Republic, in relation to European Regional Development Funds in categories relevant for Digital Innovation Hubs

European Commission

EUROPEAN STRUCTURAL AND INVESTMENT FUNDS

DATA

European Commission > European Structural & Investment Funds > Data

HOME | EXPLORE EU DATA | EXPLORE BY THEME | EXPLORE BY COUNTRY | EXPLORE BY FUND

Country Data for: Czech Republic

View a different country

Finances: Planned | Finances: Implemented | EU Payments

Achievements | Programmes

Czech Republic, through 11 national and regional programmes, benefits from ESIF funding of EUR 24 billion. This represents an average of 2 302 euro per person from the EU budget over the period 2014-2020. This page includes visualizations on the planning and implementation of the finances available, the EU payments to the Czech Republic and achievements at country level. You can explore further the ESI Funds programmes of the country in the "Programmes" section, where we list also the relevant Interreg programmes for the Czech Republic.

Total | EU | National

Country Budget for 2014-2020:

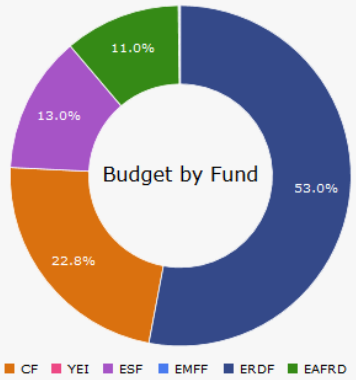
€32 291 366 027

FINANCES: PLANNED — Total — Back to Top

The planned EU financing, national co-financing and total financing are visible using the filters provided in the blue bar above. Based on the filter chosen the planned financing over the period 2014-2020 is presented below 1) by fund and 2) broken down by major theme. (The source dataset is available on the link "Explore and share this dataset").

Total Budget by Fund (daily update): Czech Republic, EUR

Explore and Share this Data



Refresh Date: 21/8/2017

For further information please see WG1 report & https://cohesiondata.ec.europa.eu/countries/CZ