



- Denmark's national strategies for digitising industry pg 3-4
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- DIHs and Competence centres funded by EU projects in Denmark in FP7 & H2020 pg 17-18
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- eit Digital Co-Location Centres pg 21
- Pilot Lines in Nanotechnology and Advanced Materials pg 22
- Planned investments, allocated resources, in Denmark, in relation to European Regional Development Funds in categories relevant for Digital Innovation Hubs pg 23

# Denmark's national strategies for digitising industry

European  
Commission

New **2025 economic plan** announced in summer 2017

- **Ministry of Public Innovation** in charge of the **Digitisation Strategy**
- GDP **DKK 80bn** by 2025  
(Manufacturing sector to contribute 20% to this objective)
- **Digitisation** important driver for new growth

## Digital Growth Strategy 2016-2020 "A stronger and more secure digital Denmark"

- focus on **public administration**

## Digital Growth Strategy

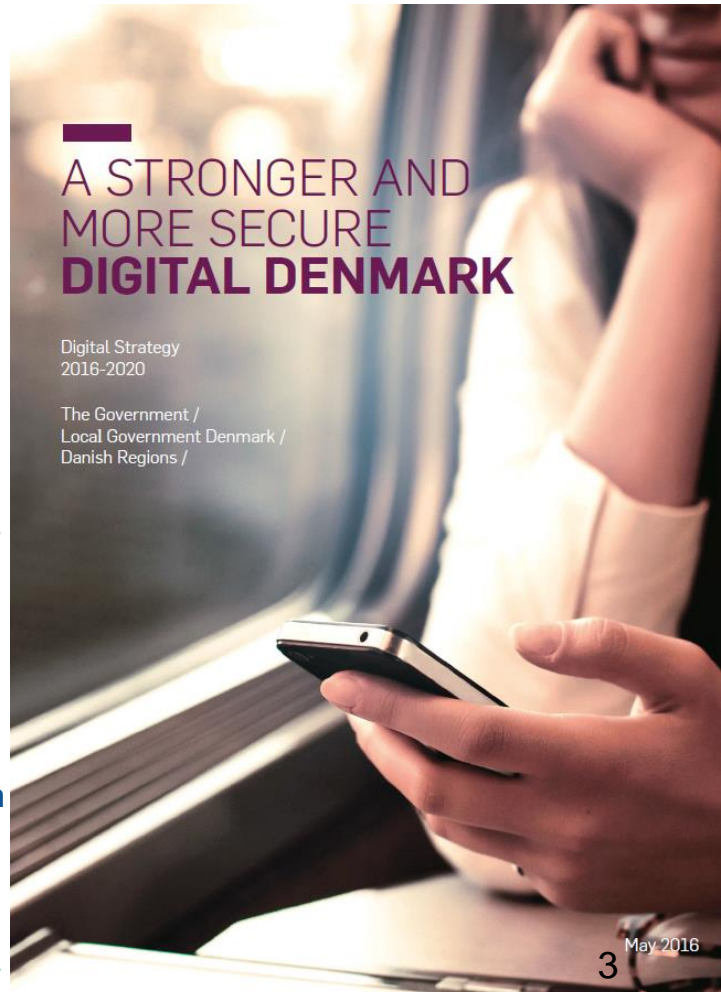
- announced for **October 2017**
- strong **business focus** - enhance connection with Industry 4.0
- based on recommendations for accelerating digitisation from the **Digital Growth Panel** (May 2017)
- strong focus on **digital skills**

## Industrial policy for transformation

- **Market Development Fund (2016-2018)**: to promote automation and digitisation in the manufacturing sector SMEs
- **Business partnership for advanced production (2016-2019)**: supports SMEs overcome business barriers through specific business processes and information activities
- Other: **Growth promise initiative**, Robot Technology Transfer Network – **ROBOTT-NET, RoboTekSyd**
- **The Platform MADE (Manufacturing Academy of Denmark)** launched in 2013: Industry-research partnership to advance the competitiveness of manufacturing industry through R&I
- **Innovation Fund Denmark** launched in 2013 to invest **DKK 1.2bn in 2017** in the innovation value chain

<http://made.dk/>

*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>*





# Denmark Digital Growth Strategy

## MADE, Manufacturing Academy of Denmark



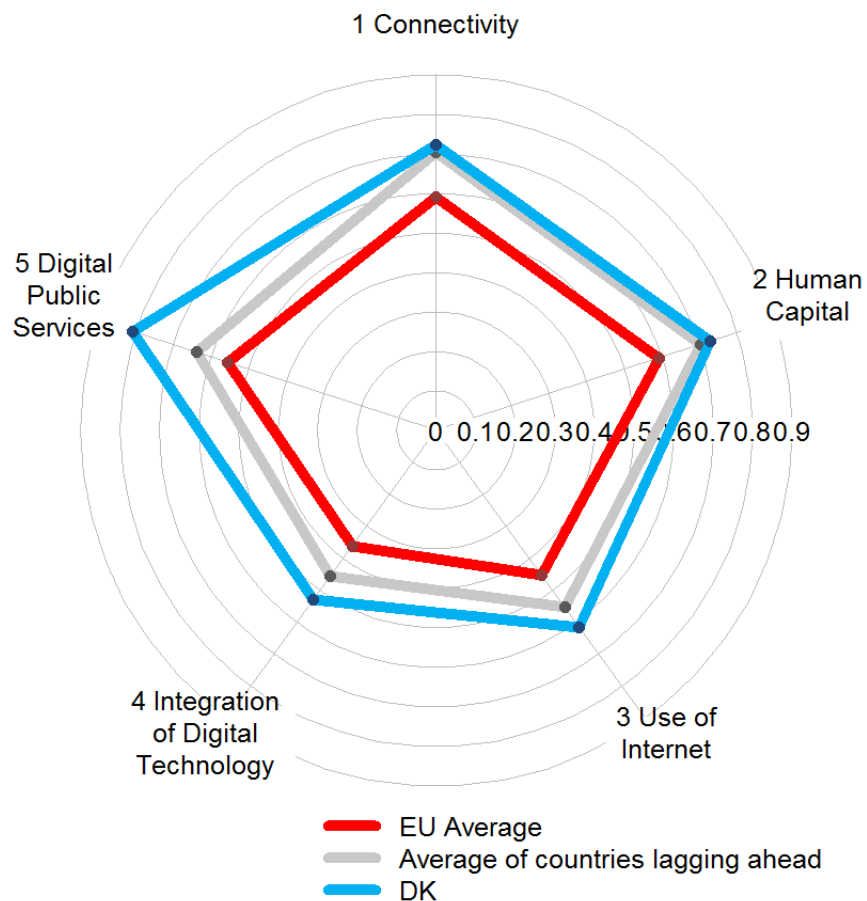
### Manufacturing Academy of Denmark (MADE) (2014-2019)

- Is governed by a board consisting of senior representatives from **industry, academia** and **RTO's**, where Industry has the majority vote.
- Has two main programs where industry and academic partners are working together:
  - **MADE SPIR (Strategic Platform for Innovation and Research) (2014-2019)** which aims to develop Advanced Manufacturing technologies and strengthen the Danish manufacturing ecosystem
    - Funded by mix public-private funds amounting to **DKK 183,5M (24,4M EURO)**
  - **MADE Digital (2017-2019)** which is a research and innovation platform aimed at developing a Danish approach to Industry 4.0, where there is focus on many of Danish SMEs.
    - Total budget of **DKK 196M (25.8M EURO)**

<http://made.dk/>

 <b>Policy Lever(s)</b>	Equal financing through public and private funds; Balanced between technology and skills focus with tendency towards development of new technologies; Bottom-up implementation approach
 <b>Funding Model</b>	Public-private partnership (SPIR) managed by an independent association equally called MADE
 <b>Target audience(s)</b>	Targeting mainly Danish SMEs active in manufacturing sector; stakeholders from research institutes / academia
 <b>Concepts &amp; Focus Areas</b>	MADE covers nine research themes focusing on business related challenges of Industry 4.0, e.g. High speed product development
 <b>Key drivers</b>	Involvement of Danish Employers' Federation; Motivation / initiative of involved partners from industry and academia
 <b>Key barriers</b>	Attracting world-class researchers proved to be challenging; Overcome skepticism of academia regarding an industry dominated agenda
 <b>Implementation strategy</b>	Initiated and designed by partners from research and industry; Building a public private partnership
 <b>Results achieved</b>	Network growth to 109 MADE members; Total of 34 innovation activities with 2213 participants; Total of 70 projects (44 industrial projects); Significant communication outreach

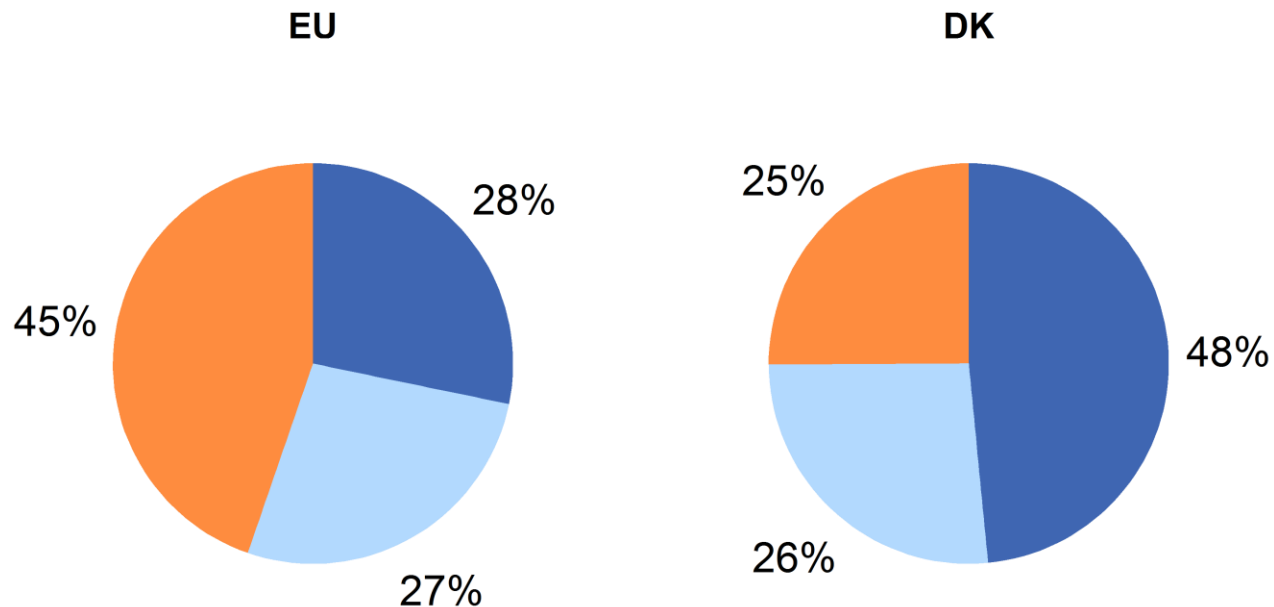
**Denmark ranks 1 among EU countries.**  
**It is part of the group of countries that are lagging ahead.**



In Denmark 26% of citizens have basic digital skills (27% in the EU) and 48% have above basic digital skills (28% in the EU).

## Digital Skills (2015)

■ Above basic digital skills   ■ Basic digital skills   ■ Low or no digital skills, or do not use the internet

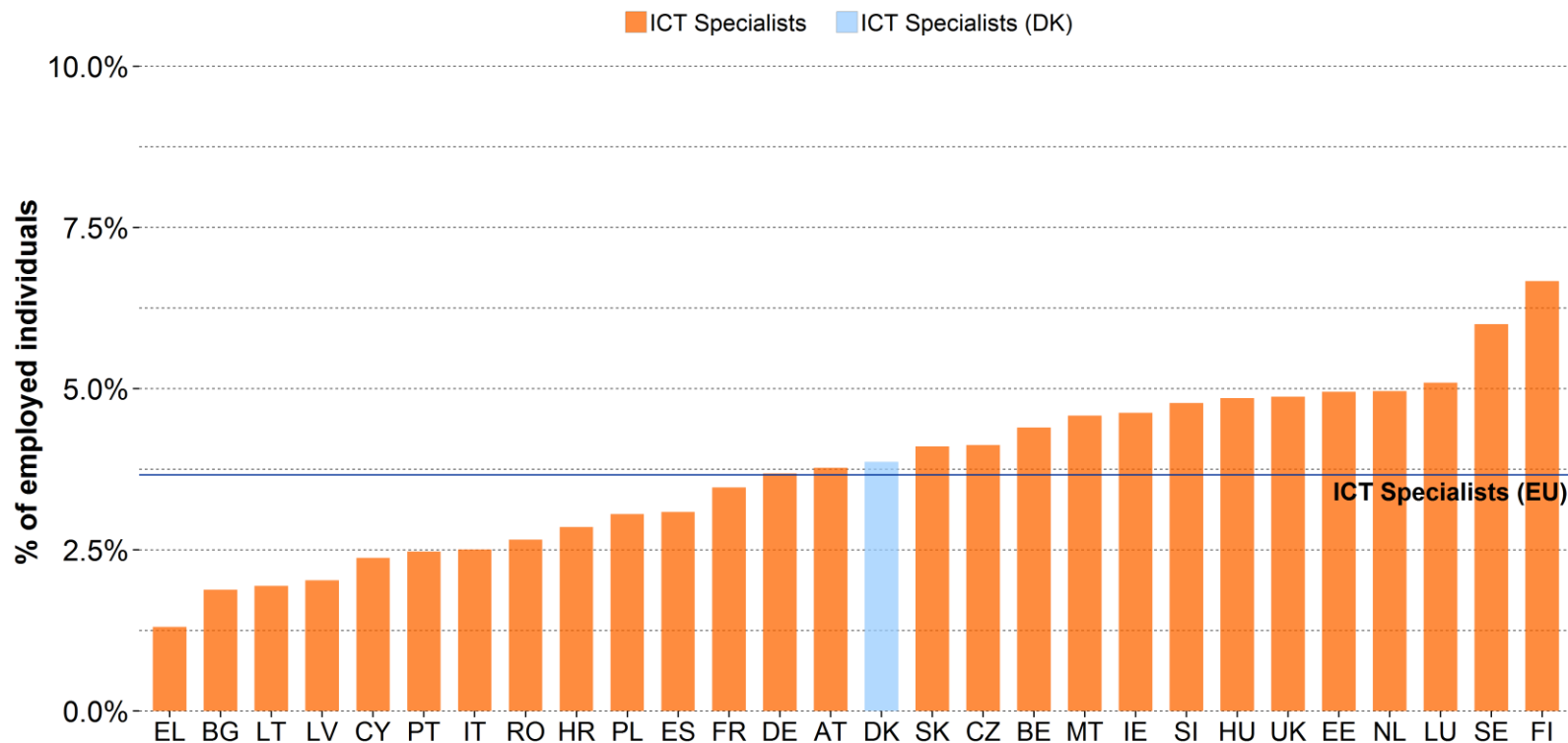


% of individuals



In Denmark ICT Specialists account for 3.9% of the workforce (3.7% in the EU).

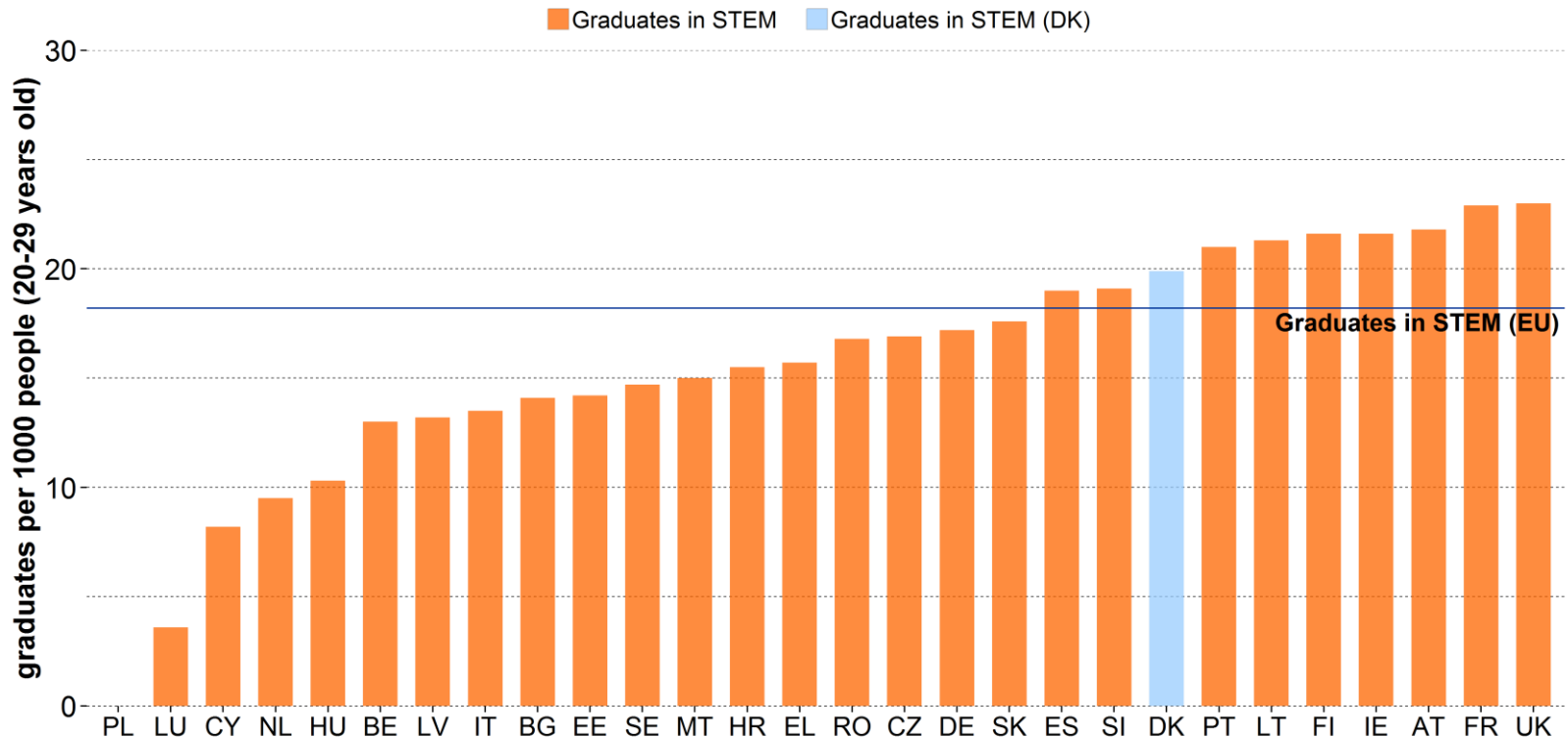
### ICT Specialists in the workforce (2014)



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

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

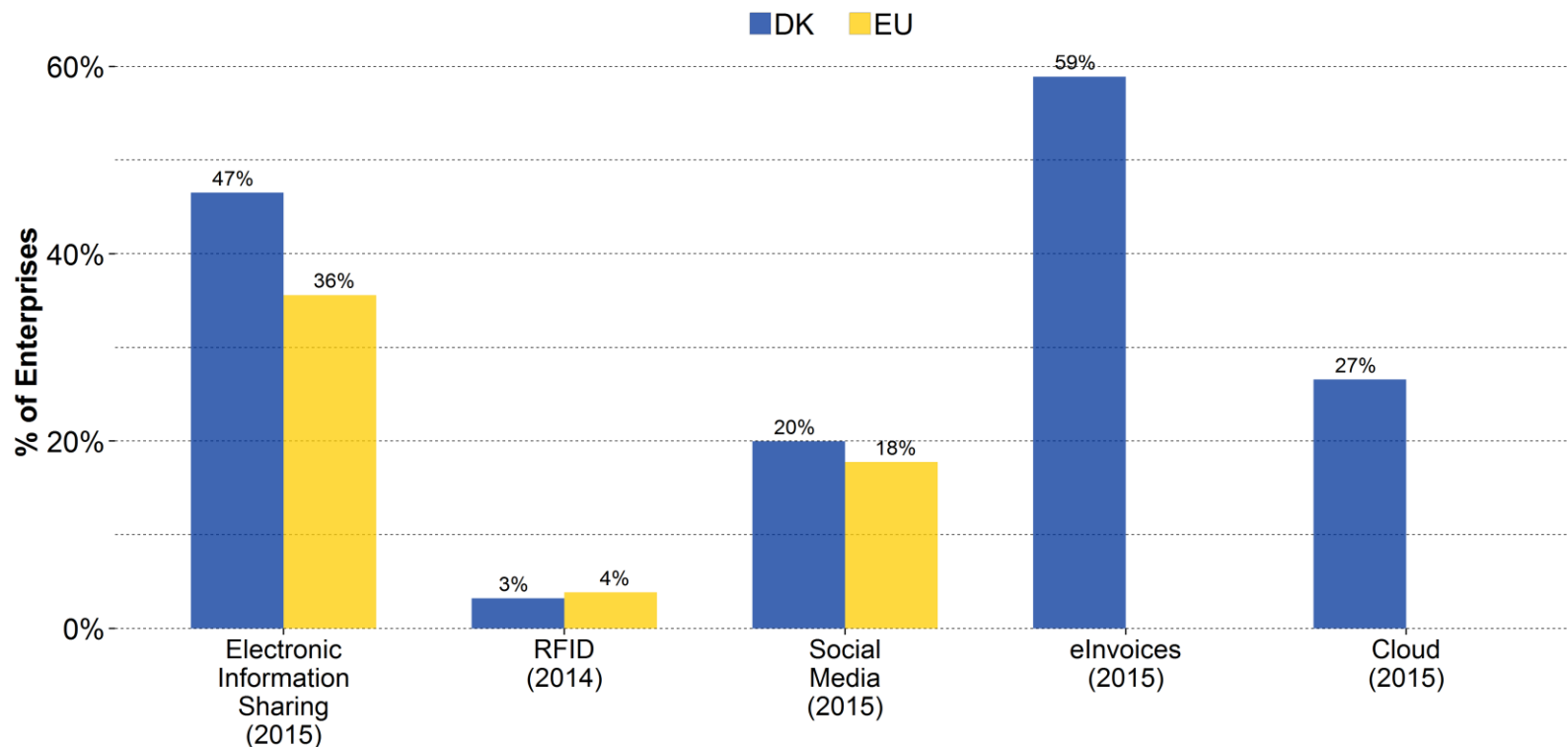
## Graduates in Science, Technology and Mathematics (2013)





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

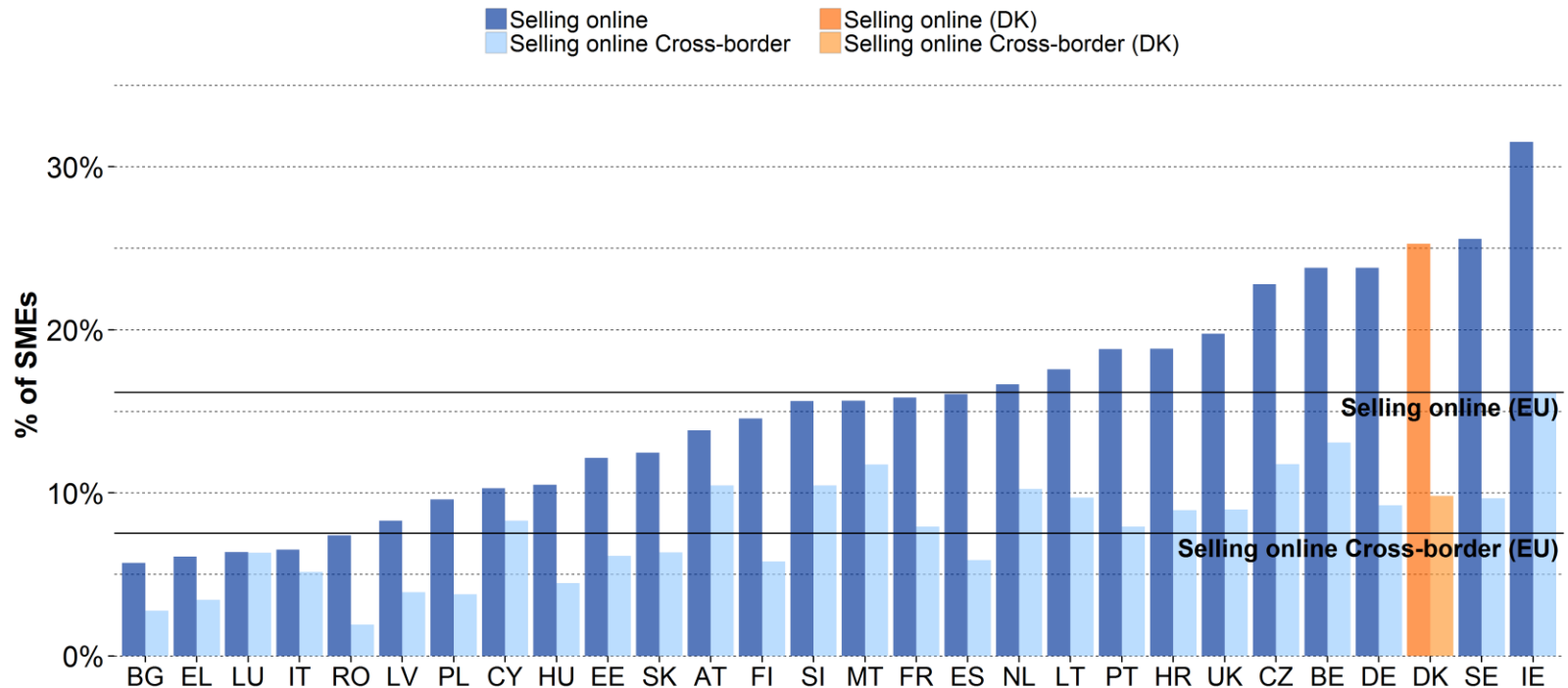
**Adoption of Digital Technology by Businesses**



**In Denmark 25% of SMEs sell online (16% in the EU).**

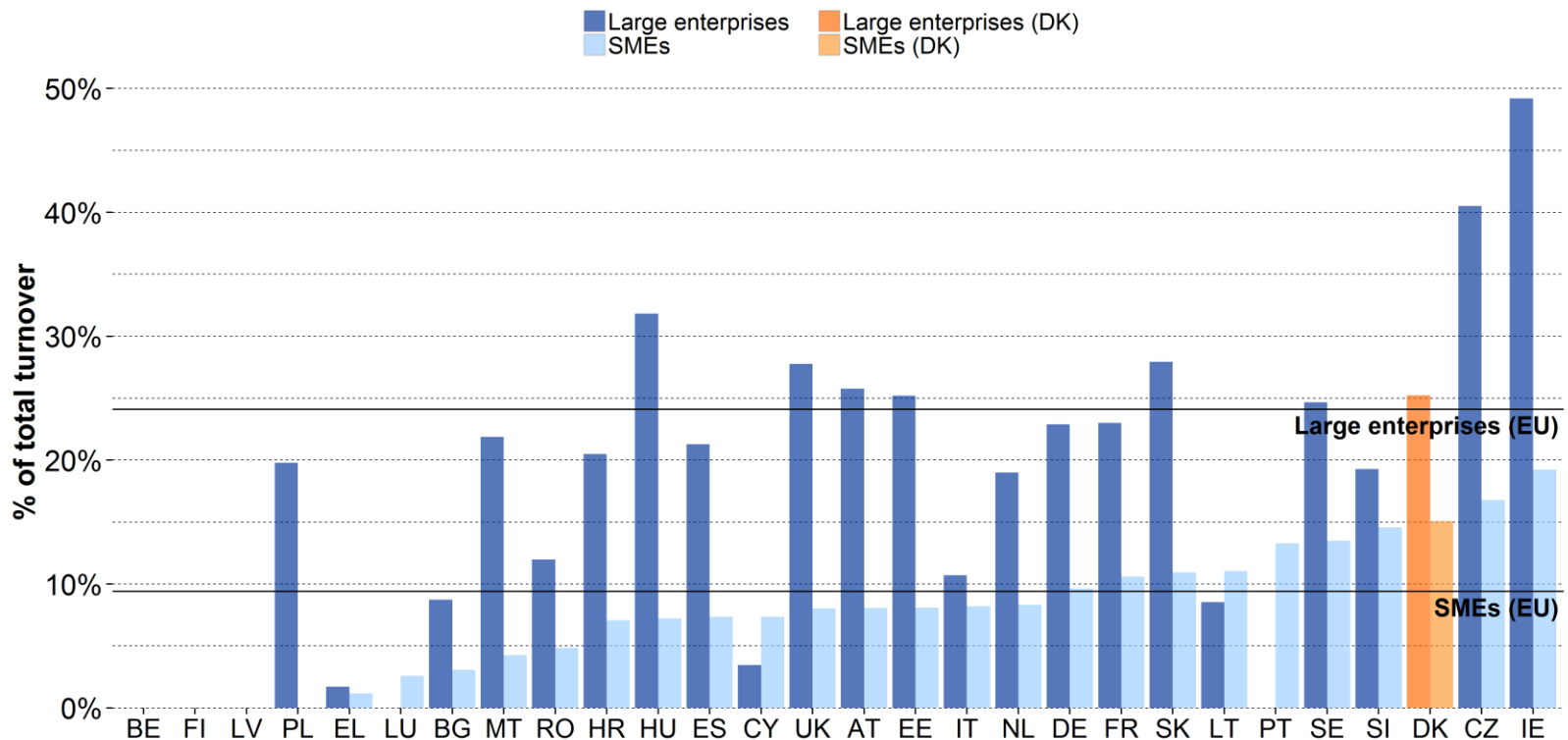
**9.8% of Danish SMEs sell online to other EU countries (7.5% in the EU).**

## SMEs selling online Overall (2015) vs. Cross-border (2015)



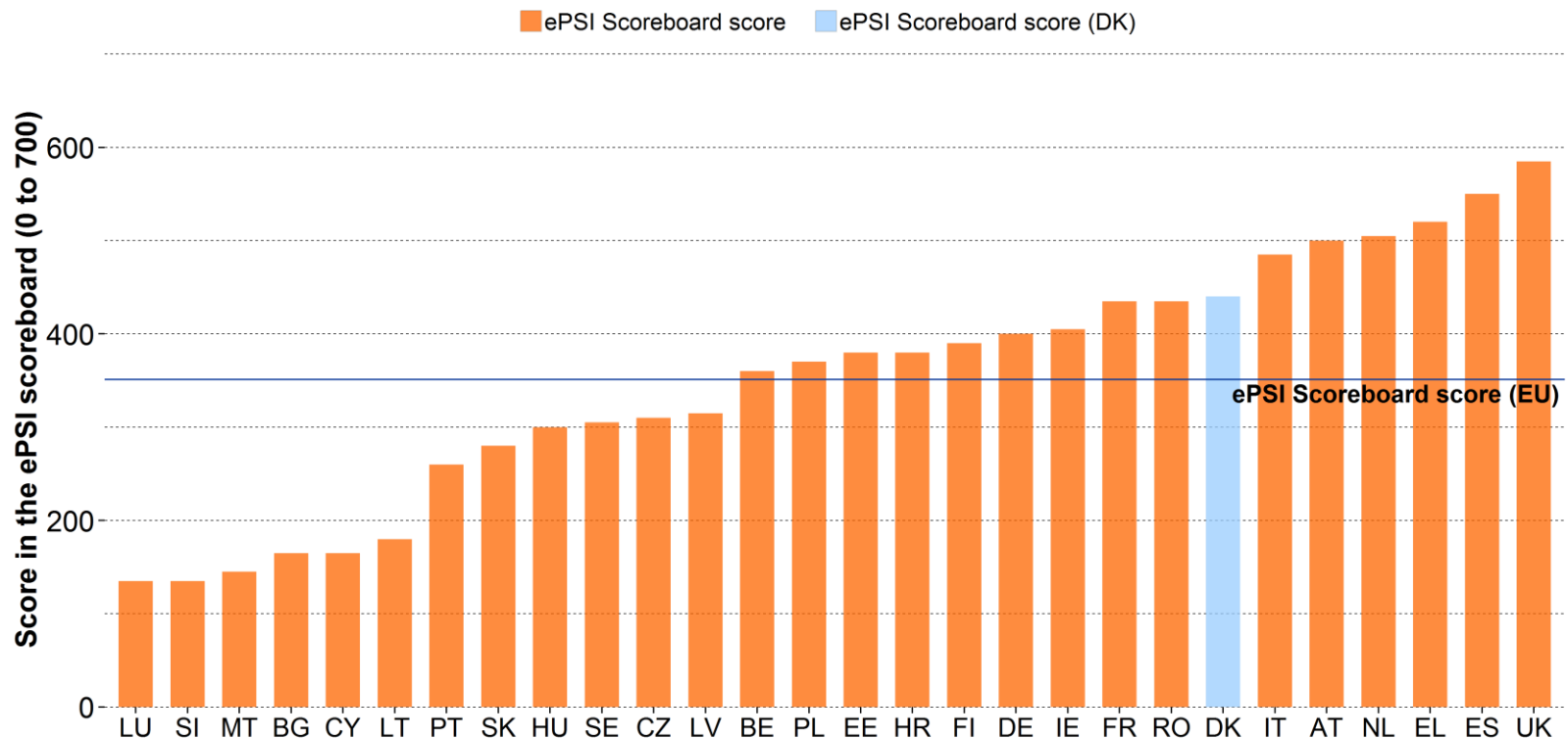
**SMEs in Denmark obtain on average 15% of their turnover from eCommerce (9.4% in the EU).  
Large enterprises derive on average 25% of their turnover from eCommerce (24% in the EU).**

## Turnover from eCommerce (2015)



**Denmark scores 440 out of 700 in the European Public Sector Information scoreboard, against an overall score of 351 out of 700 for the European Union.**

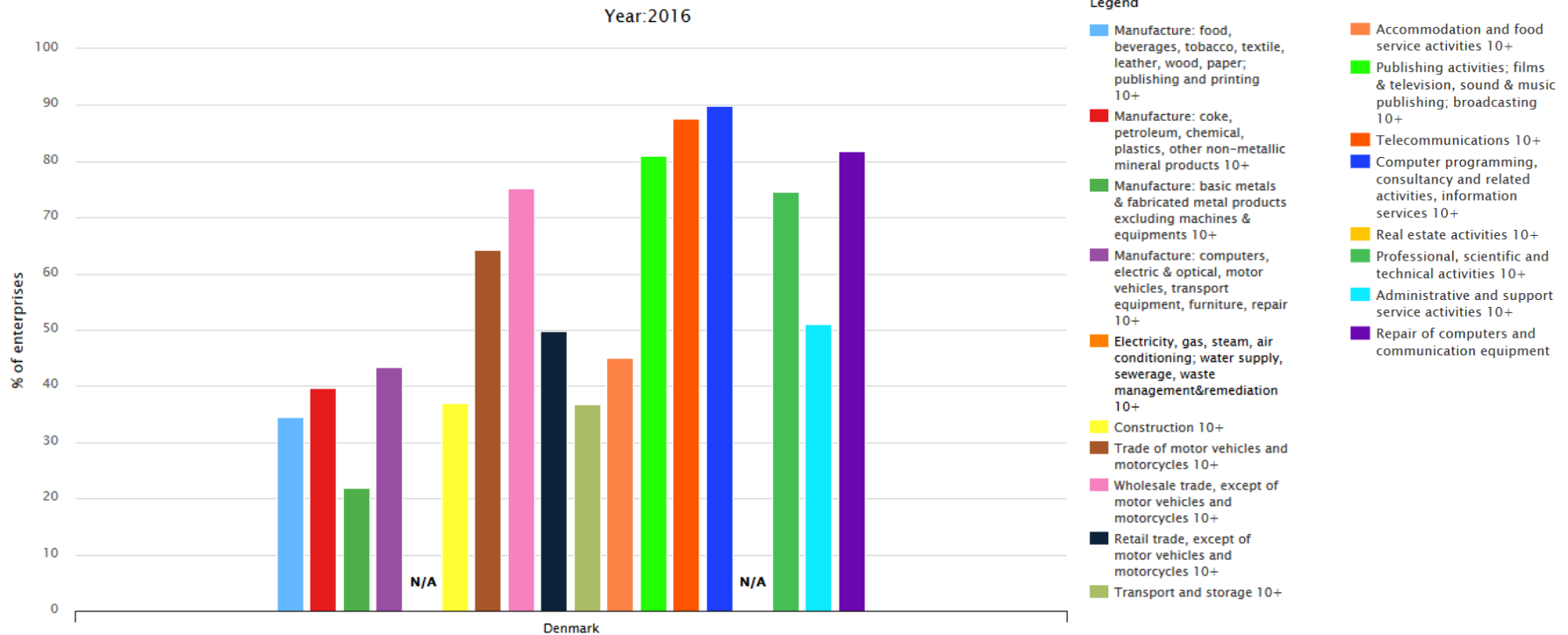
## Open Data (2015)



# Enterprises with high level of Digital Intensity by economic sectors in Denmark

European Commission

Enterprises with High levels of Digital Intensity, by Economic sectors (17 Nace groups)



## Sectors where more 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: computers, electric & optical, motor vehicles, transport equipment, furniture, repair 10+
- Electricity, gas, steam, air conditioning; water supply, sewerage, waste management & remediation 10+
- Construction 10+
- Retail trade, except of motor vehicles and motorcycles 10+
- Transport and storage 10+
- Administrative and support service activities 10+
- Trade of motor vehicles and motorcycles 10+
- Wholesale trade, except of motor vehicles and motorcycles 10+
- Accommodation and food service activities 10+
- Real estate activities 10+
- Professional, scientific and technical activities 10+
- Repair of computers and communication equipment

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

- Manufacture: basic metals & fabricated metal products excluding machines & equipment 10+

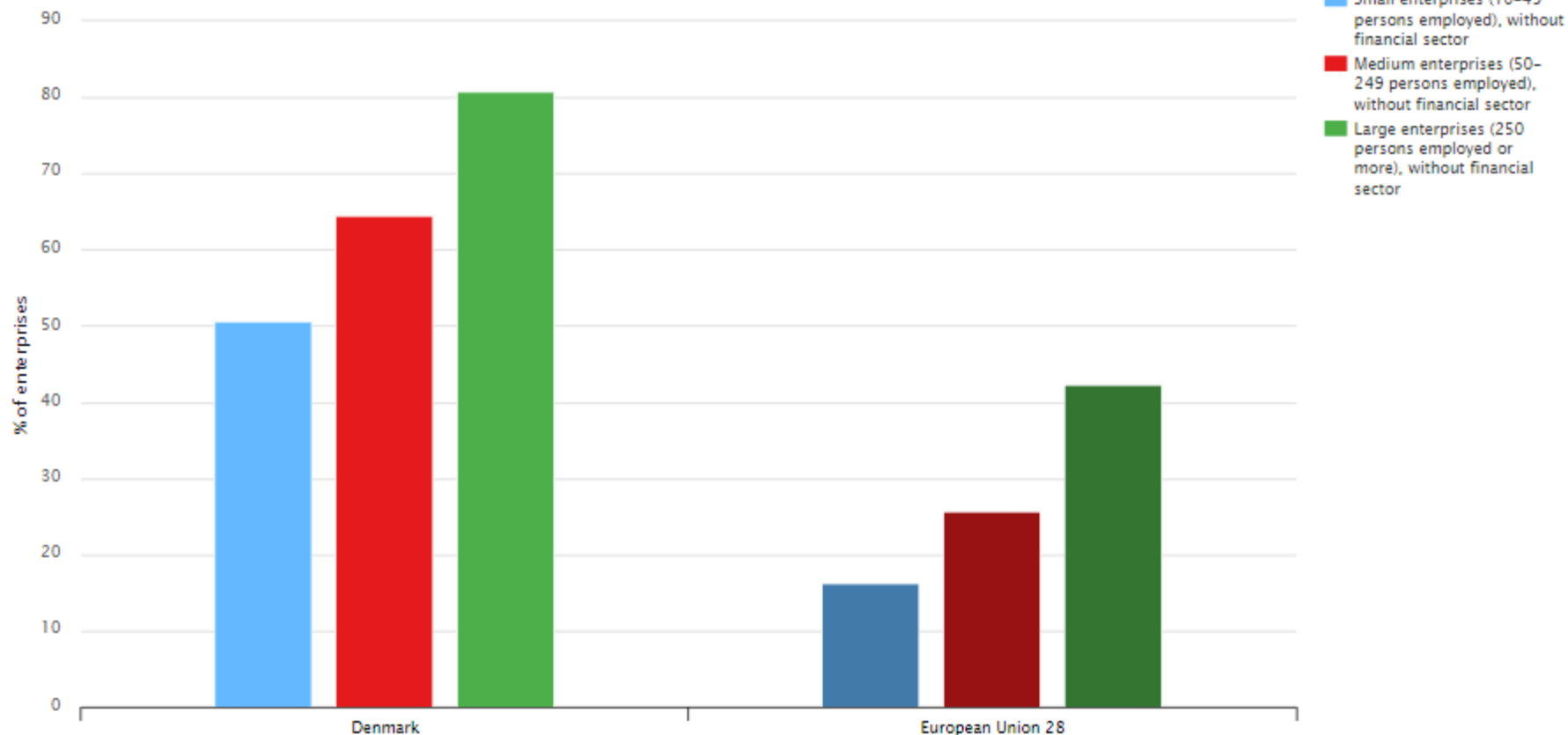
[http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={\"indicator-group\": \"ebusiness\", \"indicator\": \"e\\_di\\_hivhi\", \"breakdown-group\": \"econsector\", \"unit-measure\": \"pc\\_ent\", \"time-period\": \"2016\", \"ref-area\": \[\"DK\"\]}](http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={\)

# Enterprises with high levels of digital intensity, by Enterprise size

European  
Commission

Enterprises with High levels of Digital Intensity, by Enterprise size (Small, Medium, Large)

Year:2016



European Commission, Digital Scoreboard

[http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={"indicator-group":"ebusiness","indicator":"e di hivhi","breakdown-group":"byENTsize s m l","unit-measure":"pc ent","time-period":"2016","ref-area":\["DK","EU28"\]}](http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={)

# Digital Innovation Hubs Catalogue

## The Denmark case

European  
Commission

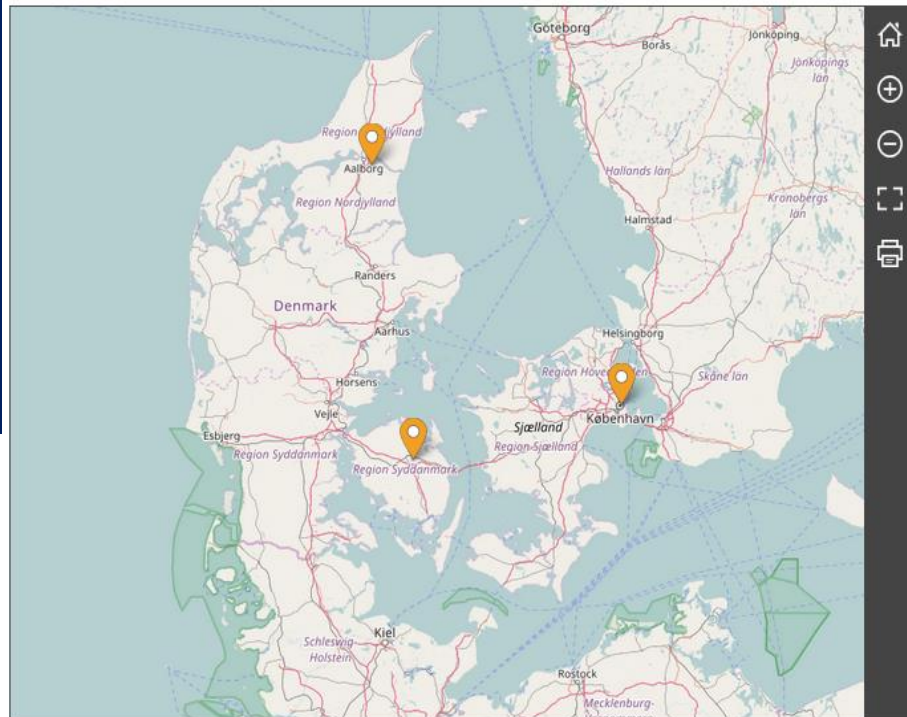


European Commission / Smart Specialisation Platform / Tools / Digital Innovation Hubs

Home S3 Platform Sections Tools News Events Knowledge Repository

Search

### Digital Innovation Hubs



Search: DENMARK

Technical Competences: None selected

Services Provided: None selected

Focus on TRL: None selected

Market sectors: None selected

- Select all
- Agriculture, hunting and forestry
- Fishing
- Mining and quarrying
- Electricity, gas and water supply
- Construction
- Wholesale and retail trade
- Hotels and restaurants
- Transport, storage and communication
- Financial intermediation

Leaflet | © OpenStreetMap contributors | Disclaimer

[Export Hubs to csv](#)

Hub Name	Location	Country	Contact	Phone	Email	Website
BrainsBusiness ICT North Denmark	Niels Jernes Vej 10 , DK-9220, Aalborg	Denmark	Birgit Nøhr	+45 2972 0701	<a href="#">✉</a>	<a href="#">🌐</a>

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

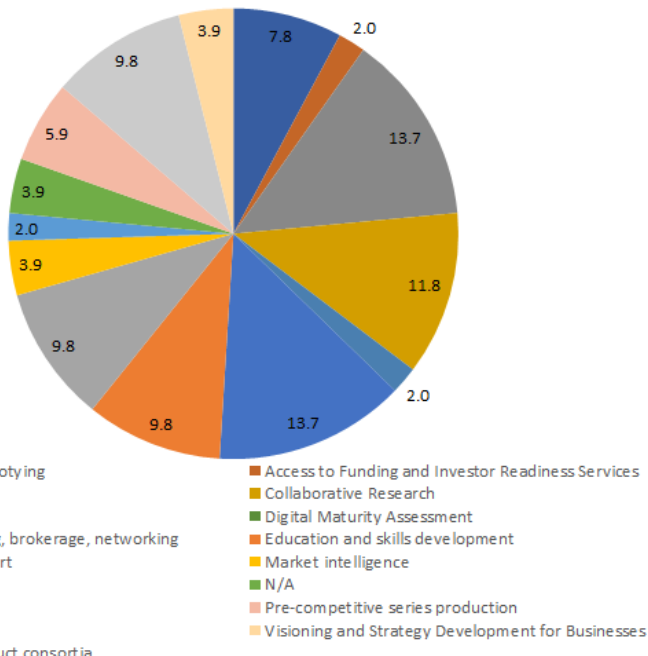
<http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool>

[JRC-B3-DIH@ec.europa.eu](mailto:JRC-B3-DIH@ec.europa.eu)

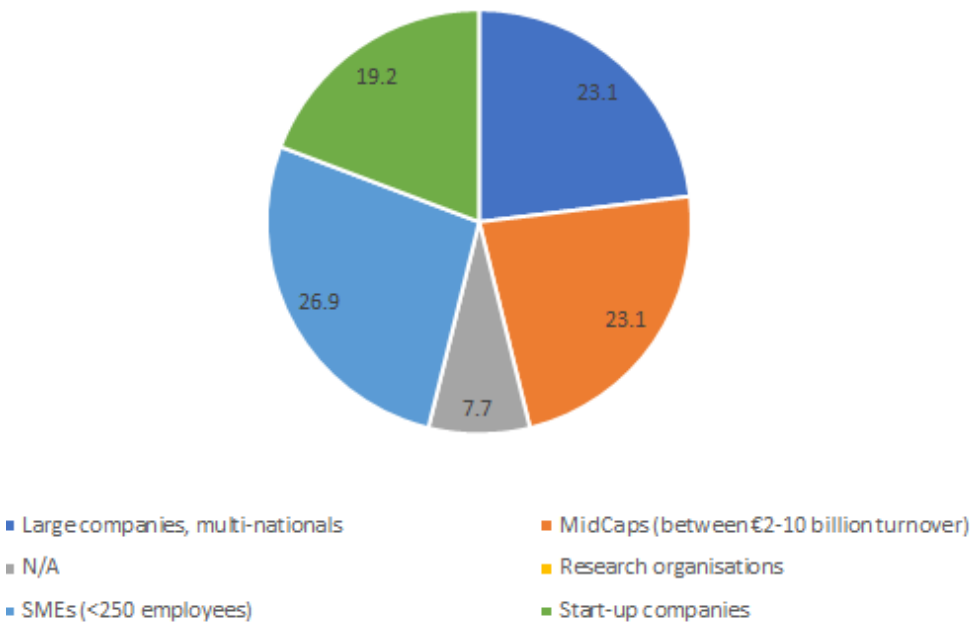


# Services provided and types of customers supported by DIHs in Denmark - Analysis

**Types of services provided (%)**



**Types of customers supported (%)**



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 Denmark 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-09-2015	ReconCell	36	31/10/2018	BLUE OCEAN ROBOTICS APS	PARTICIPANT	BOR	PRIVATE	No
FoF-09-2015	ReconCell	36	31/10/2018	SYDDANSK UNIVERSITET	PARTICIPANT	SDU	PUBLIC	Yes
FOF-12-2017	L4MS	42		Developing Fyn P/S	PARTICIPANT	OR	PRIVATE	N/A
FOF-12-2017	I4MS-Go	30		MADE - Manufacturing Academy of Denmark	PARTICIPANT	MADE	PRIVATE	Yes
FOF-12-2017	AMable	48		TEKNOLOGISK INSTITUT	PARTICIPANT	DANISH TECHNOLOGICAL INSTITUTE	PRIVATE	Yes



# Competence centers/DIHs funded by EU projects in Denmark 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
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	DTI	TEKNOLOGISK INSTITUT	Participant	REC
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	STAS	Scape Technologies A/S	Participant	PRC
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	BlueOceanRobotics	BLUE OCEAN ROBOTICS APS	Participant	PRC
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	Stena	STENA RECYCLING AS	Participant	PRC

## Cluster Organisations Mapping Tool

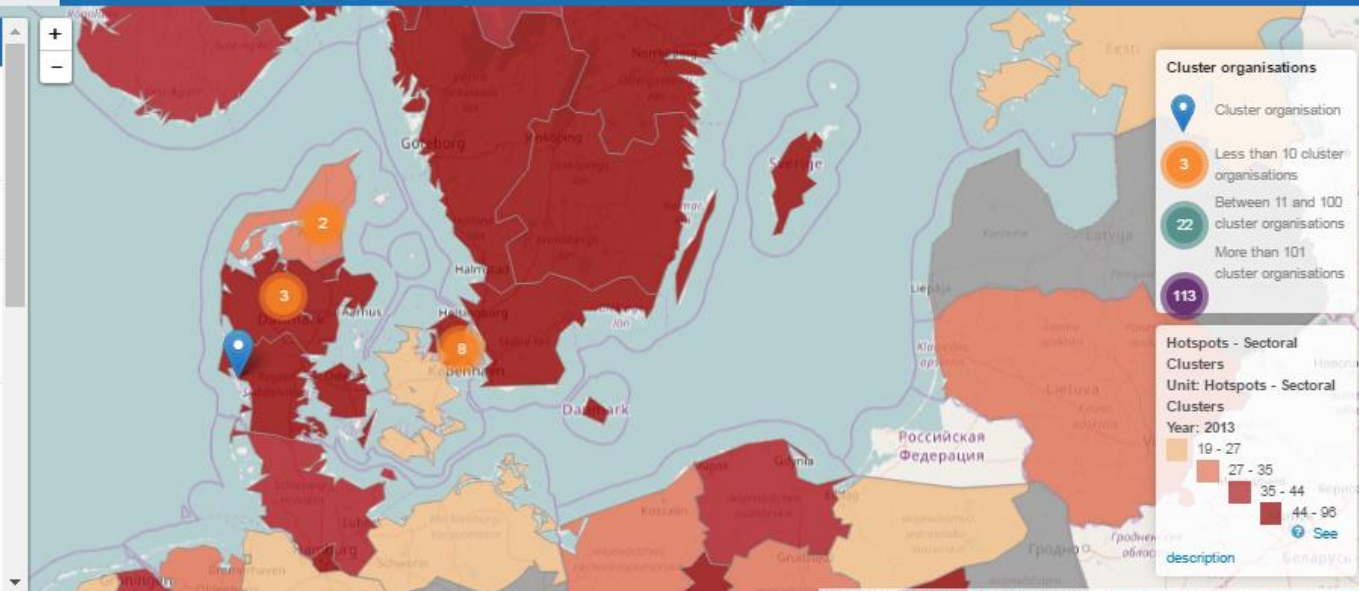
Welcome on the ECCP cluster organisations mapping tool. This tool maps cluster organisations registered on the ECCP platform and shows also data from the [European Cluster Observatory](#).

Keywords search  
Enter keywords here... Clear Selected list

Country & Regions  
Country: Denmark Region: All regions

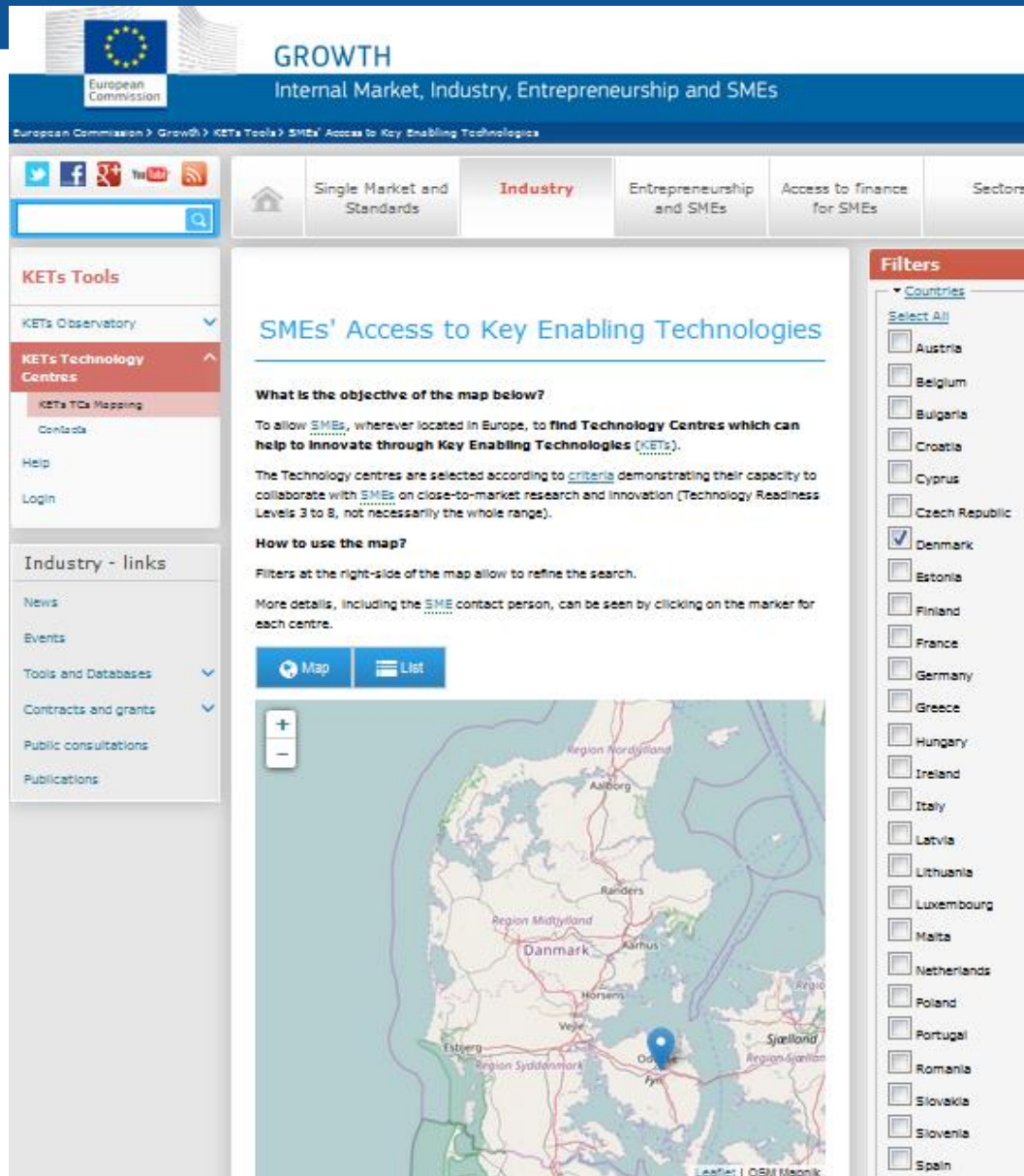
Cluster Organisations  
Sectoral Industries: All sectors Emerging industries: All emerging indust  
Technology fields: All categories Participation in EU programmes: Any

S3 EU priority areas: All S3 priority areas



[https://www.clustercollaboration.eu/print/cluster-list?combine=&country\\_code=dk](https://www.clustercollaboration.eu/print/cluster-list?combine=&country_code=dk)

Please see [WG1 report](#)



**GROWTH**  
Internal Market, Industry, Entrepreneurship and SMEs

European Commission > Growth > KETs Tools > SMEs' Access to Key Enabling Technologies

Single Market and Standards | **Industry** | Entrepreneurship and SMEs | Access to finance for SMEs | Sectors

**KETs Tools**

- KETs Observatory
- KETs Technology Centres**
  - KETs TCs Mapping
  - Contacts
  - Help
  - Login

**Industry - links**

- News
- Events
- Tools and Databases
- Contracts and grants
- Public consultations
- Publications

**SMES' Access to Key Enabling Technologies**

**What is the objective of the map below?**

To allow SMEs, wherever located in Europe, to find Technology Centres which can help to innovate through Key Enabling Technologies (KETs).

The Technology centres are selected according to criteria demonstrating their capacity to collaborate with SMEs on close-to-market research and innovation (Technology Readiness Levels 3 to 8, not necessarily the whole range).

**How to use the map?**

Filters at the right-side of the map allow to refine the search.

More details, including the SME contact person, can be seen by clicking on the marker for each centre.

Map | List

**Filters**

- Countries
  - Select All
  - Austria
  - Belgium
  - Bulgaria
  - Croatia
  - Cyprus
  - Czech Republic
  - Denmark
  - Estonia
  - Finland
  - France
  - Germany
  - Greece
  - Hungary
  - Ireland
  - Italy
  - Latvia
  - Lithuania
  - Luxembourg
  - Malta
  - Netherlands
  - Poland
  - Portugal
  - Romania
  - Slovakia
  - Slovenia
  - Spain

[https://ec.europa.eu/growth/tools-databases/kets-tools/kets-tc/map?field\\_postal\\_address\\_country%5B0%5D=DK](https://ec.europa.eu/growth/tools-databases/kets-tools/kets-tc/map?field_postal_address_country%5B0%5D=DK)

**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 Denmark

# Pilot Lines in Nanotechnology and Advanced Materials

European  
Commission

Project Number	Project Acronym	Project Title	Project Start Date	Project End Date	Participant Legal Name	Participant Short Name	Sectors	Pilot line
646260	R2R Biofluidics	Large scale micro-and nanofabrication technologies for bioanalytical devices based on R2R imprinting	01/02/2015	31/01/2019	INMOLD AS	InMold Biosystems		
686165	IZADI-NANO2INDUSTRY	Injection moulding, casting and coating PILOTS for the production of improved components with nano materials for automotive, construction and agricultural machinery.	01/11/2015	31/10/2018	CEMECON SCANDINAVIA AS	CSA		
686165	IZADI-NANO2INDUSTRY	Injection moulding, casting and coating PILOTS for the production of improved components with nano materials for automotive, construction and agricultural machinery.	01/11/2015	31/10/2018	DANMARKS TEKNISKE UNIVERSITET	DTU		
686165	IZADI-NANO2INDUSTRY	Injection moulding, casting and coating PILOTS for the production of improved components with nano materials for automotive, construction and agricultural machinery.	01/11/2015	31/10/2018	MICHAEL LUNDBECH AS	ML		
686165	IZADI-NANO2INDUSTRY	Injection moulding, casting and coating PILOTS for the production of improved components with nano materials for automotive, construction and agricultural machinery.	01/11/2015	31/10/2018	NIL TECHNOLOGY APS	NILT		
686165	IZADI-NANO2INDUSTRY	Injection moulding, casting and coating PILOTS for the production of improved components with nano materials for automotive, construction and agricultural machinery.	01/11/2015	31/10/2018	TOOLPARTNERS AS	TOOL		



# Planned investments, allocated resources, in Denmark, 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: Denmark

View a different country

Finances: Planned

Finances: Implemented

EU Payments

Achievements

Programmes

Denmark, through 4 national programmes, benefits from ESIF funding of EUR 1.5 billion. This represents an average of 223 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 Denmark 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 Denmark.

Total EU National

Country Budget for 2014-2020:

€2 253 056 430

FINANCES: PLANNED

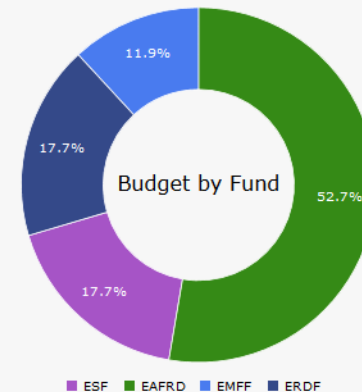
Total

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): Denmark, EUR

Explore and Share this Data



Refresh Date: 21/8/2017