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# Portugal's national strategy for digitising industry

European  
Commission











## Indústria 4.0

- Launched in **January 2017** by the **Ministry of Economy** as part of the National Strategy for the **Digitisation of the Economy**
- The overall objective includes an initial set of measures of valorisation, promotion and investment in the digitisation of the Portuguese economy
- **Fabtec**: learning factory with demonstration of innovative solutions to the industrial sector
- **4AC Industria 4.0**: accelerator, incubator, prototyping with the aim to provide industry with software and hardware solutions to help companies turn their ideas into products during the product development and scale-up phases

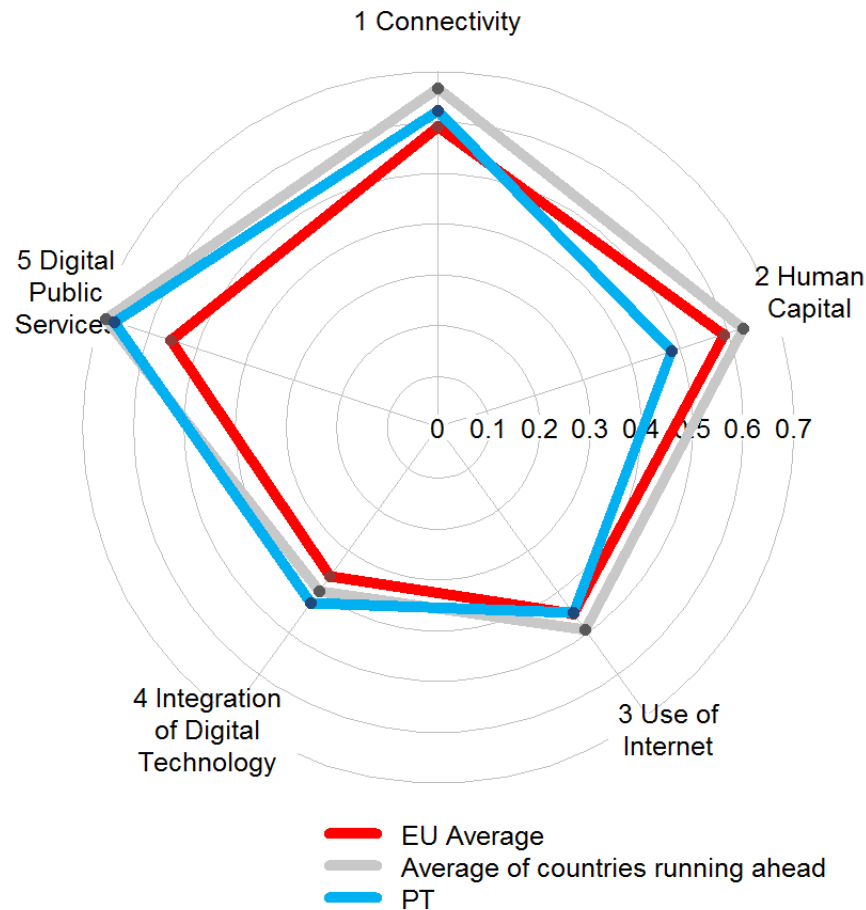
[www.i40.pt](http://www.i40.pt)

## Funding

- Investments of **414M EUR** (100% supported by EU funds) and up to **2.26bn EUR** in incentives, via **Portugal 2020**, for the development of awareness and adoption of technologies associated with the Industry 4.0 concept, is foreseen for the **next 4 years** (2017-2020)
- Under the Portugal Industry 4.0 measures, it is expected that up to **4.5bn EUR** of investment will be injected into the economy in the **next 4 years** (2017-2020)

 <b>Policy Lever(s)</b>	Bottom-up design and implementation; Strong focus on upskilling human capital with weaker focus on new technologies; Equally funded by public and private sector.
 <b>Funding Model</b>	No specific funding scheme available; a mix of funding instruments will be used (loans, tax aid, private investment)
 <b>Target audience(s)</b>	SMEs
 <b>Concepts &amp; Focus Areas</b>	Indústria 4.0 supports the development of skills, new methods and digital applications in key strategic sectors of the Portuguese economy
 <b>Key drivers</b>	Functional governance model, with a private company managing the implementation tool. Realistic identification of industry needs.
 <b>Key barriers</b>	Lack of methods to ensure private investment; social fear that massive digital transformation could lead to unemployment.
 <b>Implementation strategy</b>	Implemented by private actors through an online platform; Constant review and adjustments of the measures.
 <b>Expected results</b>	Impact over 50,000 companies and train 200,000 workers on digital competences.

**Portugal ranks 14 among EU countries.  
It is part of the group of countries that are running ahead.**



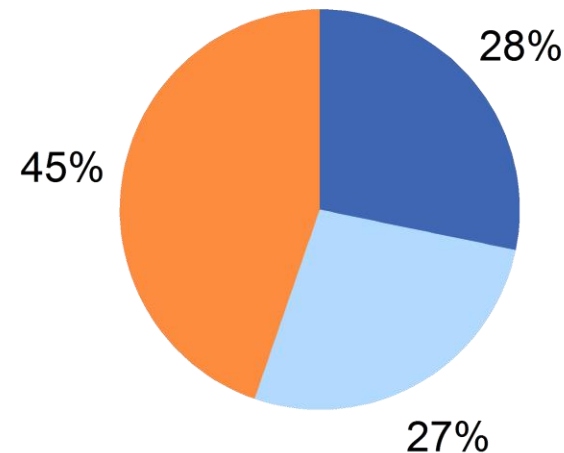
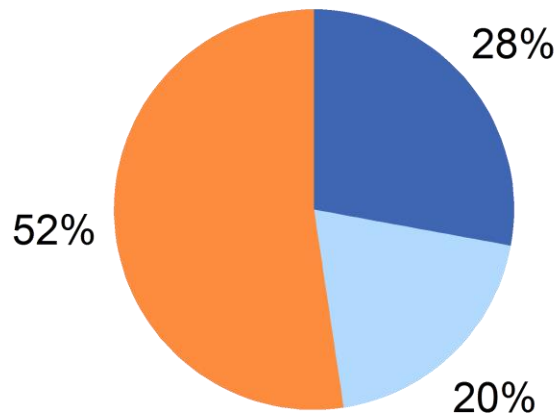
**In Portugal 20% of citizens have basic digital skills (27% in the EU) and 28% have above basic digital skills (28% in the EU).**

## Digital Skills (2015)

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

PT

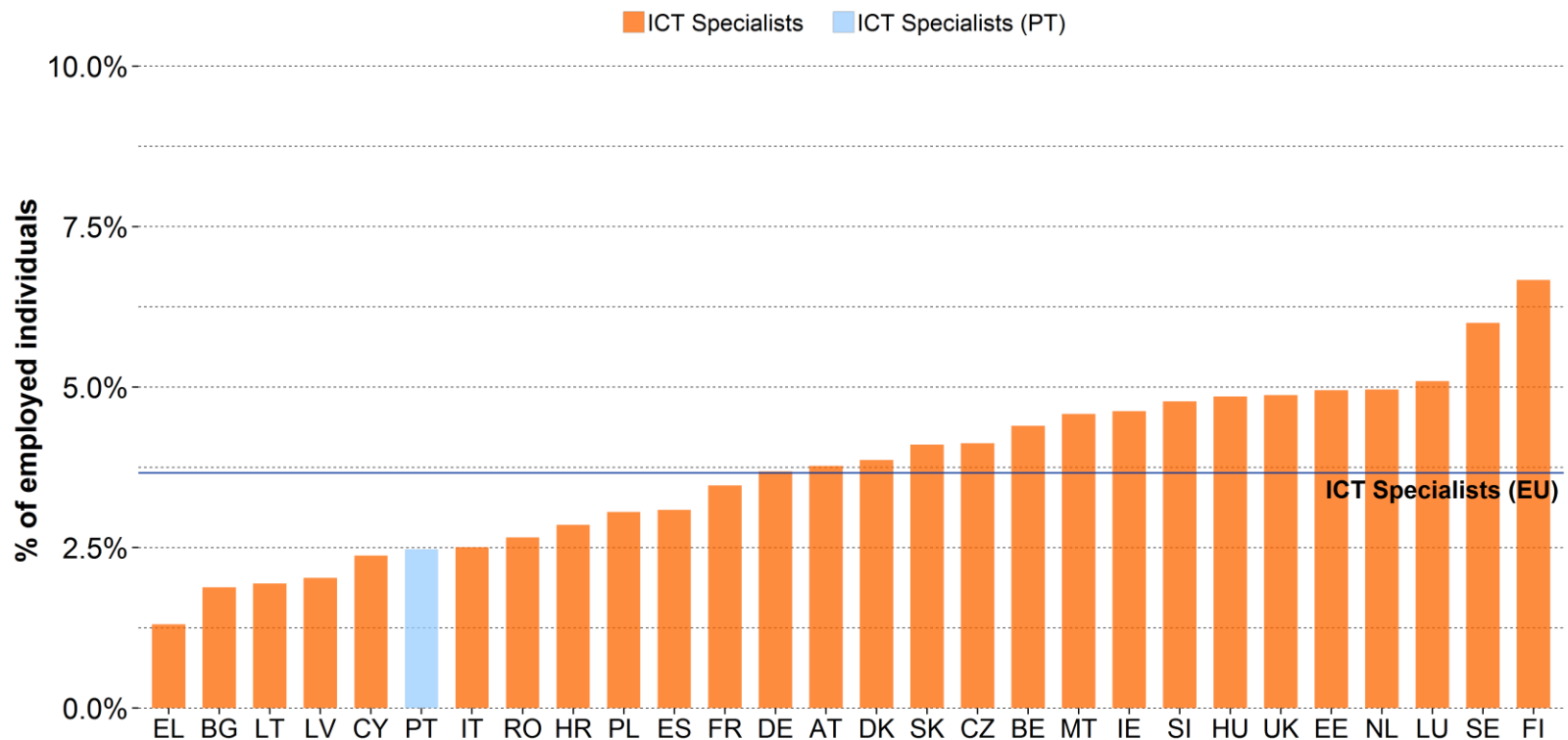
EU



% of individuals

In Portugal ICT Specialists account for 2.5% of the workforce (3.7% in the EU).

ICT Specialists in the workforce (2014)

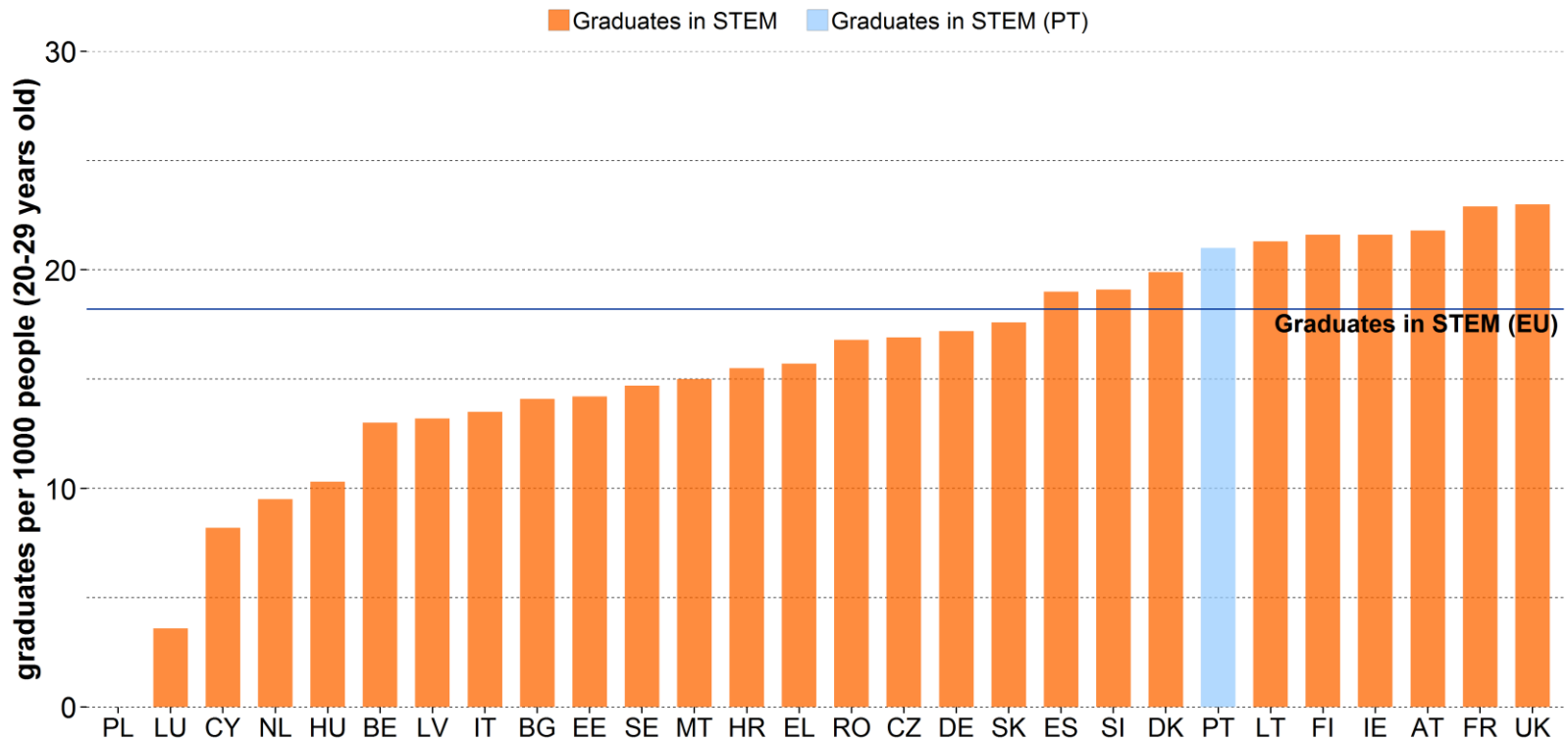


# Human Capital: Graduates in STEM (Science, Technology and Mathematics)

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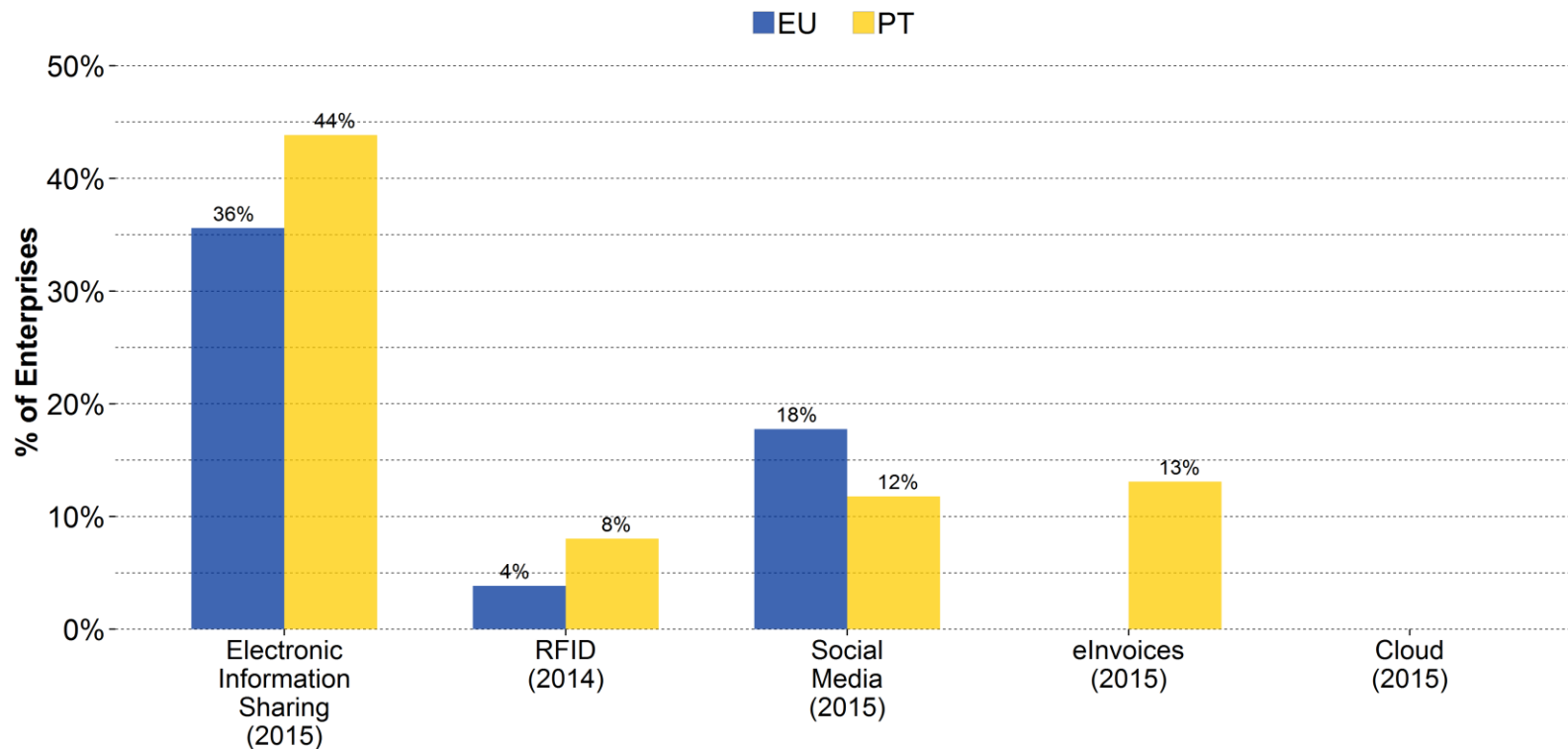
**Portugal has 21 graduates in STEM per each 1000 people  
aged 20-29 years old (18 in the EU).**

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



**Businesses in Portugal 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

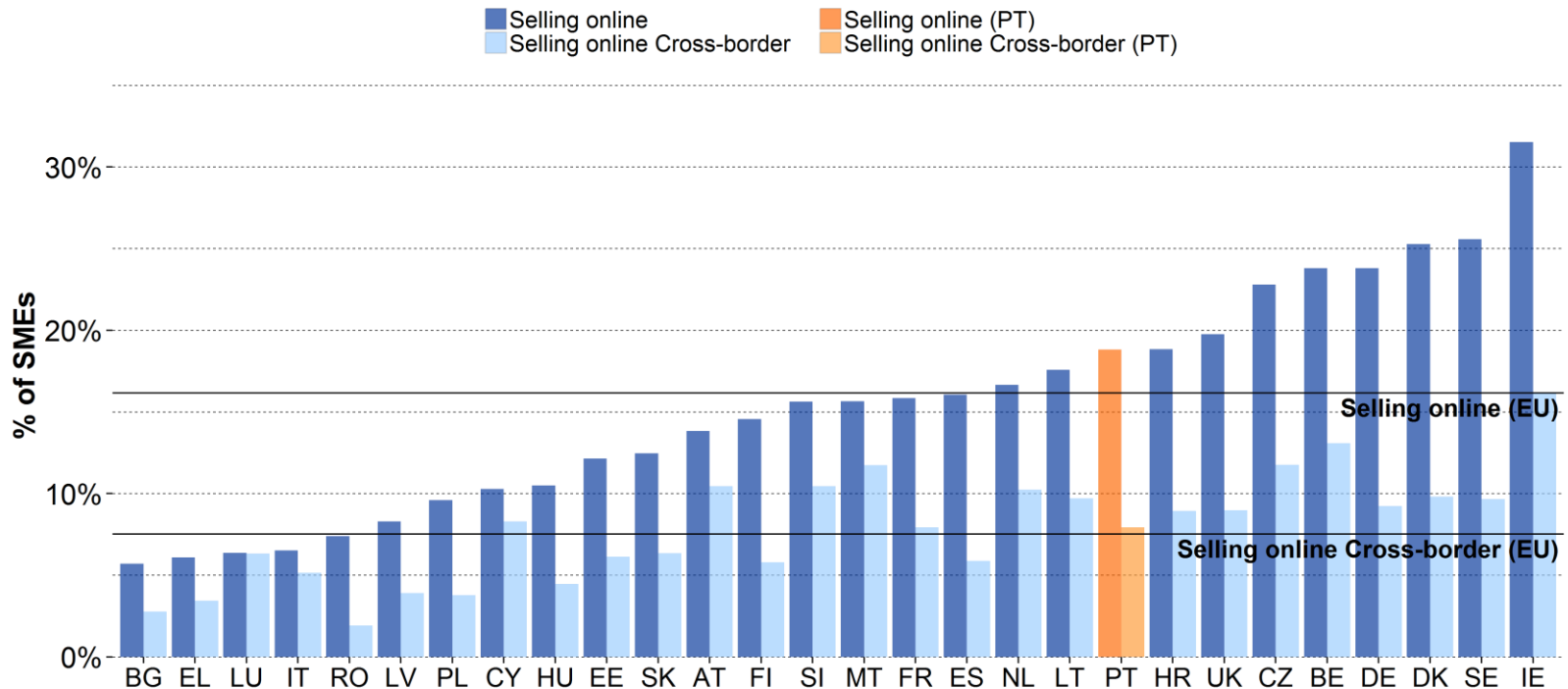




**In Portugal 19% of SMEs sell online (16% in the EU).**

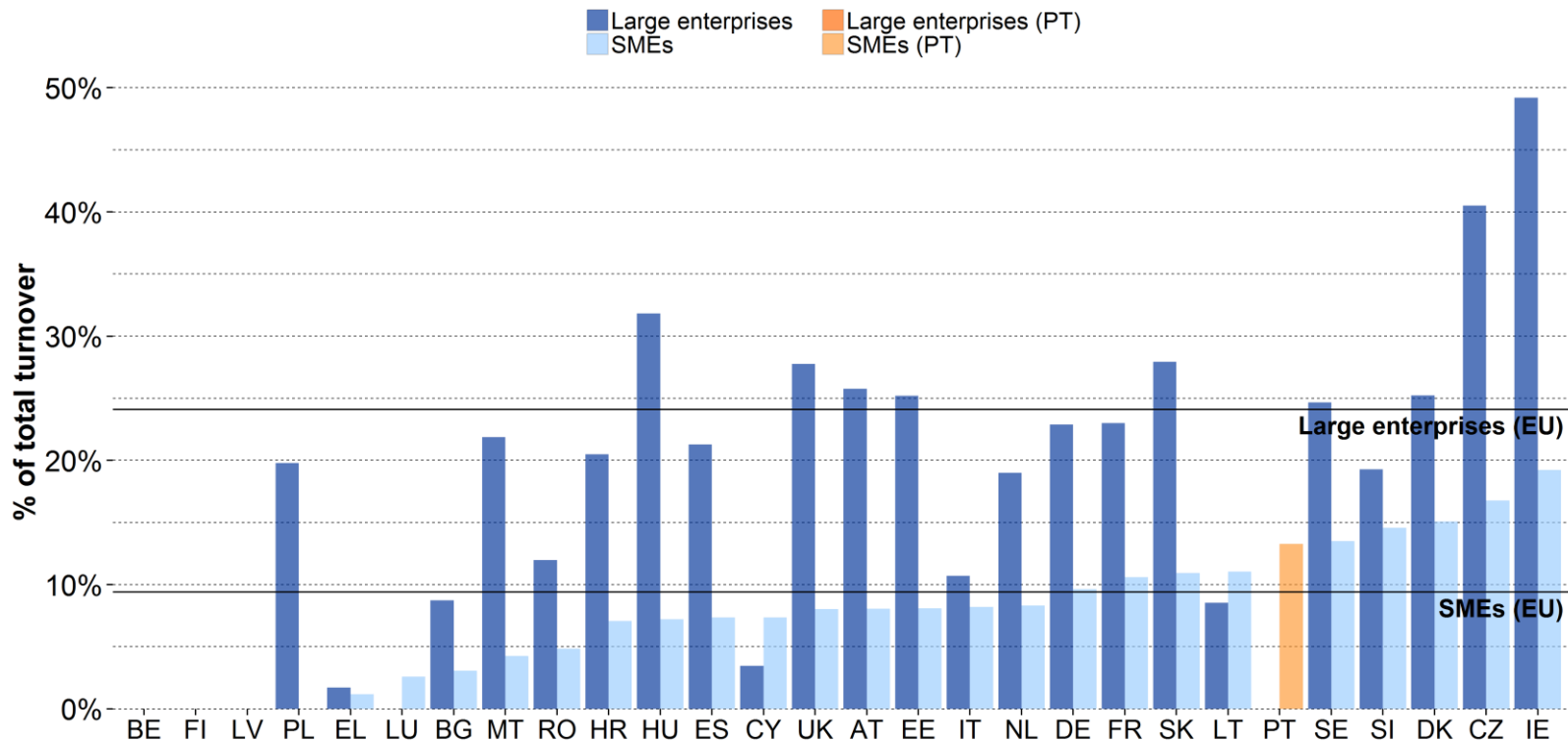
**7.9% of Portuguese SMEs sell online to other EU countries (7.5% in the EU).**

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



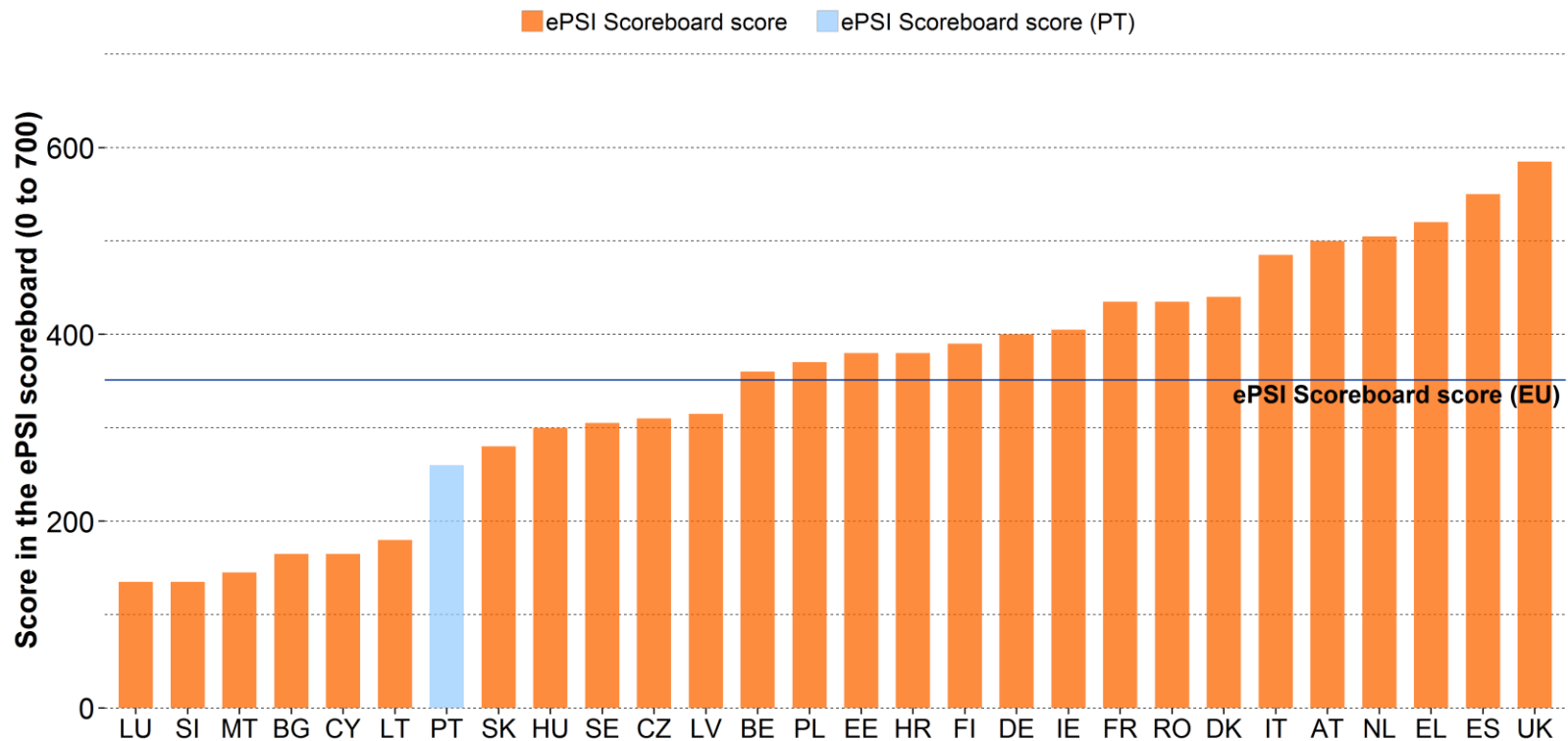
**SMEs in Portugal obtain on average 13% of their turnover from eCommerce (9.4% in the EU).**

## Turnover from eCommerce (2015)



**Portugal scores 260 out of 700 in the European Public Sector Information scoreboard, against an overall score of 351 out of 700 for the European Union.**

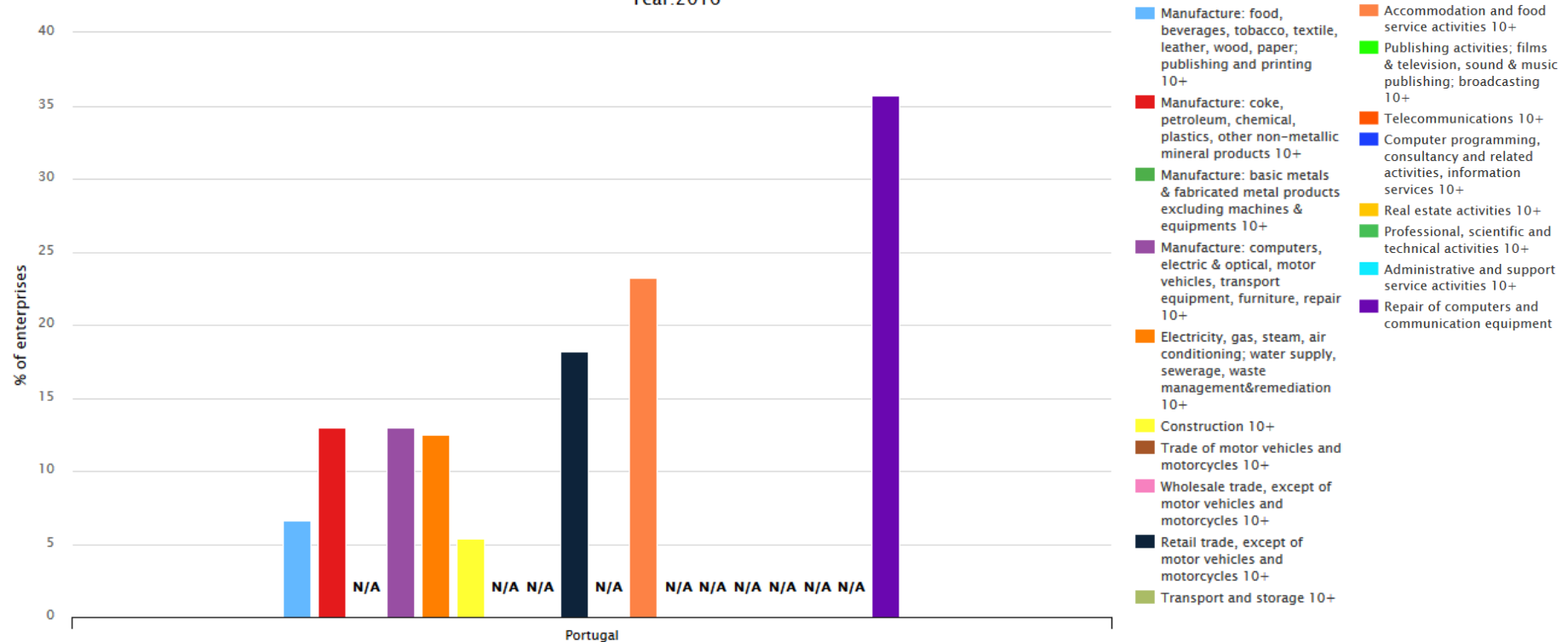
## Open Data (2015)



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

European Commission

Enterprises with High Levels of Digital Intensity, by Economic sectors (17 Nace groups)  
Year: 2016



## 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+
- Administrative and support service activities 10+

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

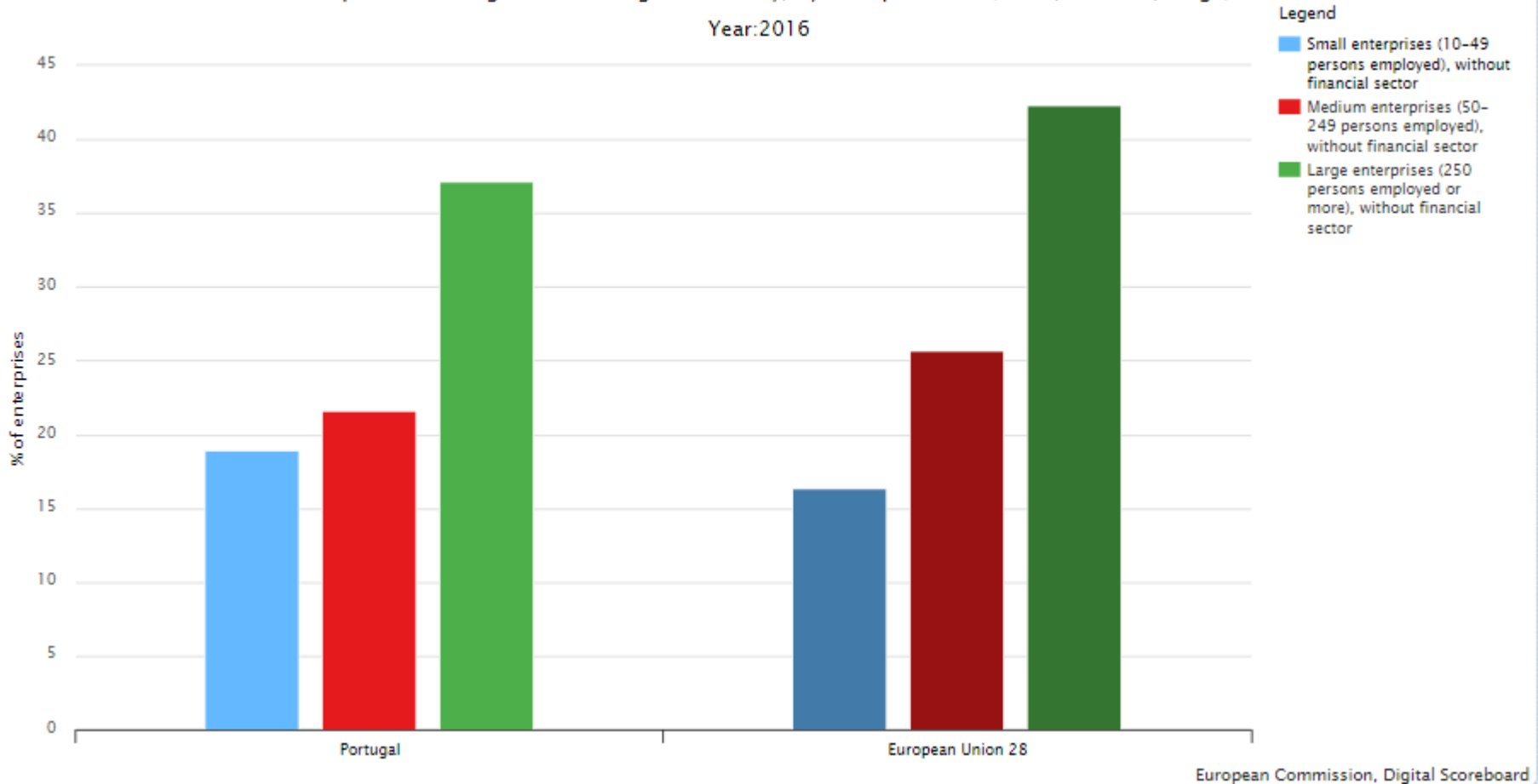
- Repair of computers and communication equipment

[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:%22PT%22}}](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:%22PT%22}})

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

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

Year:2016



[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":\["EU28","PT"\]}](http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-breakdowns#chart={)

# Digital Innovation Hubs Catalogue

## The Portugal case

European  
Commission



SMART SPECIALISATION PLATFORM

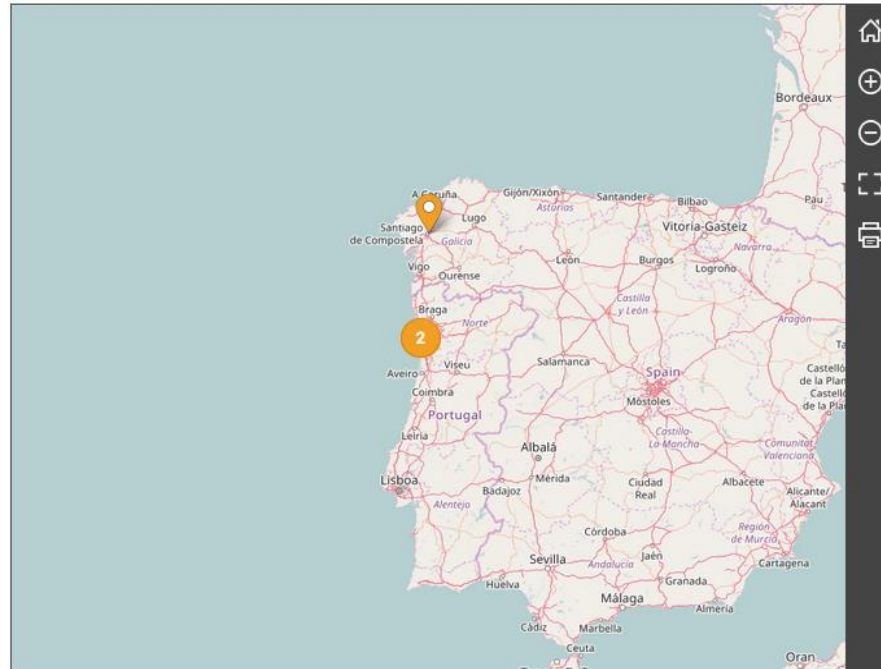


European Commission / Smart Specialisation Platform / Tools / Digital Innovation Hubs

Home S3 Platform Sections **Tools** News Events Knowledge Repository

Search

### Digital Innovation Hubs



Search

Technical Competences

Services Provided

Focus on TRL

Market sectors

- 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
- Real estate, renting and business activities
- Public administration and defence

Leaflet | © OpenStreetMap contributors | Disclaimer

Export Hubs to csv

Hub Name	Location	Country	Contact	Phone	Email	Website
Digital Innovation Hub for Customer-Driven Manufacturing @ Norte (iMan Norte Hub)	Rua dos Plátanos nº 197, 4100-414, Porto	Portugal	Pedro Rocha	+351 226 166 897	<a href="#">✉</a>	<a href="#">🌐</a>
Galician Advance Manufacturing Innovation Consortia	Axencia Galega de Innovación – GAIN Rúa Airas Nune, 15702, Santiago de Compostela	Spain	Enrique Rohrer Sobrino (GAIN Planning and Strategi	+34 981957865 +3	<a href="#">✉</a>	

The version available presents:

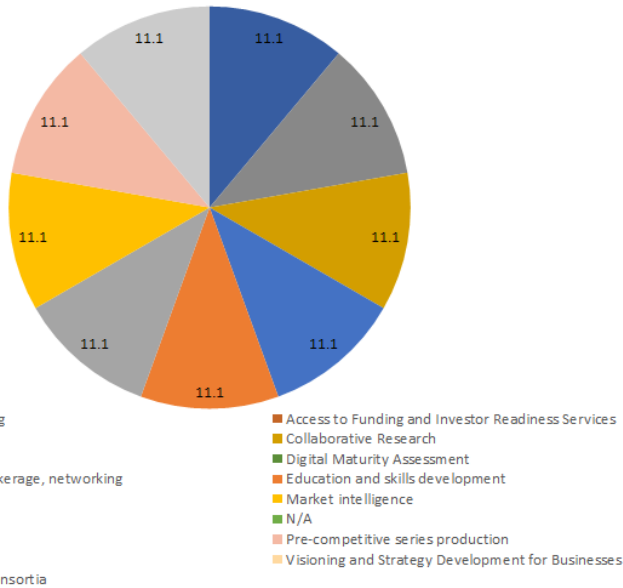
- Fact-sheets with profile, contact data, service examples for regional, national, and EU-supported DIHs
- Map-based search tool by technical competences, market sector, services

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

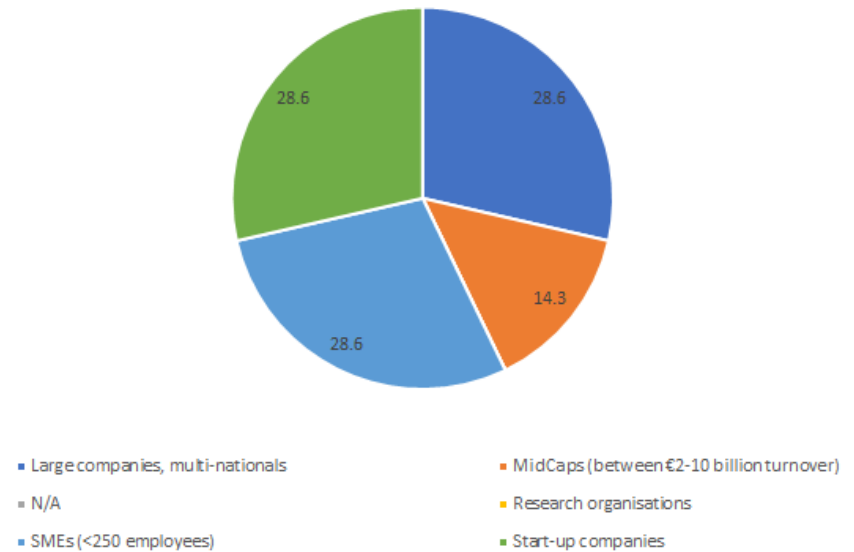
[JRC-B3-DIH@ec.europa.eu](mailto:JRC-B3-DIH@ec.europa.eu)

# Services provided and types of customers supported by DIHs in Portugal - 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 Portugal 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	BEinCPPS	36	31/10/2018	FORTUNATO O. FREDERICO & CA., LDA.	PARTICIPANT	KYAIA	PRIVATE	No
FoF-09-2015	BEinCPPS	36	31/10/2018	CENTRO TECNOLOGICO DE CALCADO DE PORTUGAL	PARTICIPANT	CTCP	PRIVATE	Yes
FoF-09-2015	BEinCPPS	36	31/10/2018	INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA	PARTICIPANT	INESC TEC	PRIVATE	Yes
ICT-04-2017	DIATOMIC	36	31/08/2020	FASTTRACK VC SCR SA	PARTICIPANT	FASTT	PRIVATE	No
ICT-04-2017	DIATOMIC	36	31/08/2020	INSTITUTO PEDRO NUNES ASSOCIACAOPARA A INOVACAO E DESENVOLVIMENTOEM CIENCIA E TECNOLOGIA	PARTICIPANT	IPN	PRIVATE	Yes
ICT-04-2017	DIATOMIC	36	31/08/2020	INSTITUTO PEDRO NUNES ASSOCIACAOPARA A INOVACAO E DESENVOLVIMENTOEM CIENCIA E TECNOLOGIA	PARTICIPANT	IPN	PRIVATE	Yes





# Competence centers/DIHs funded by EU projects in Portugal 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
608849	EuRoC	48	01-Jan-2014	31-Dec-2017	48	UAVR	UNIVERSIDADE DE AVEIRO	Participant	HES
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	WAVEC	WAVEC/OFFSHORE RENEWABLES - CENTRO DE ENERGIA OFFSHORE ASSOCIACAO	Participant	REC
609046	LASHARE	48	01-Sep-2013	31-Aug-2017	69	SOD	SODECIA SOCIEDADE INDUSTRIAL DE METALURGIA DA GUARDA SA	Participant	PRC
609100	CloudFlow	46	01-Jul-2013	30-Apr-2017	47	INT	INTROSYS-INTEGRATION FOR ROBOTIC SYSTEMS-INTEGRACAO DE SISTEMAS ROBOTICOS SA	Participant	PRC
288881	COLAE	36	01-Sep-2011	31-Aug-2014	19	CENTI	CENTITVC - CENTRO DE NANOTECNOLOGIA E MATERIAIS TECNICOS FUNCIONAIS E INTELIGENTES ASSOCIACAO	Participant	REC
601116	ECHORD Plus Plus	60	01-Oct-2013	30-Sep-2018	107	IDM	IDMIND - ENGENHARIA DE SISTEMAS LDA	Participant	PRC



European Commission

# Clusters in Portugal



Login

Search...

- # HOME
- CLUSTER ORGANISATIONS
- EU CLUSTER PARTNERSHIPS
- MATCHMAKING EVENTS
- INTERNATIONAL COOPERATION
- PARTNER SEARCH
- TOOLS

**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...

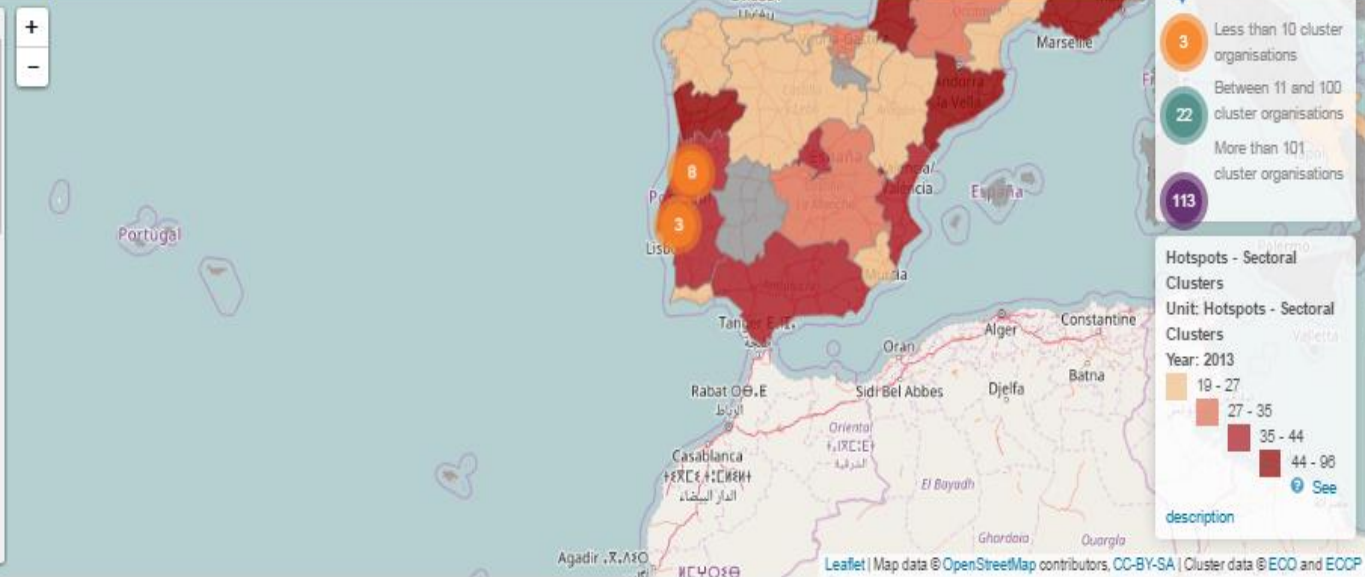
Country & Regions

Country: Portugal  
Region: All regions

Cluster Organisations


Sectoral Industries: All sectors  
Emerging industries: All emerging indust

Technology fields



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

Please see [WG1 report](#)



## GROWTH

Internal Market, Industry, Entrepreneurship and SMEs

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

**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)**.

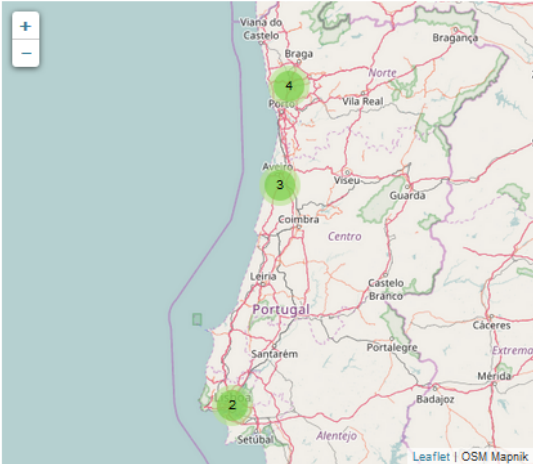
The Technology centres are selected according to **criteria** demonstrating their capacity to collaborate with **SMEs** on close-to-market research and innovation (Technology Readiness Levels 3 to 8, not necessarily the whole range).

**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



**What are KETs Technology Centres?**

**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
- Sweden
- United Kingdom

**Technology Readiness Levels**

**Market sectors**

Apply
Reset

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

**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 Portugal**

# 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
683356	FOLSMART	Folate-Target Nanodevices To Activated Macrophages For Rheumatoid Arthritis	01/01/2016	31/12/2019	ASSOCIACAO UNIVERSIDADE EMPRESA PARA DESENVOLVIMENTO TECMINHO	TecMinho		
683356	FOLSMART	Folate-Target Nanodevices To Activated Macrophages For Rheumatoid Arthritis	01/01/2016	31/12/2019	BLUECLINICAL - INVESTIGACAO E DESENVOLVIMENTO EM SAUDE LDA	Blueclinical		
683356	FOLSMART	Folate-Target Nanodevices To Activated Macrophages For Rheumatoid Arthritis	01/01/2016	31/12/2019	INSTITUTO DE BIOLOGIA MOLECULAR E CELULAR-IBMC	IBMC		
685909	SKHINCAPS	SKin Healthcare by Innovative NanoCAPsuleS	01/10/2015	30/09/2019	CENTITVC - CENTRO DE NANOTECNOLOGIA E MATERIAIS TECNICOS FUNCIONAIS E INTELIGENTES ASSOCIACAO	CTI		
685909	SKHINCAPS	SKin Healthcare by Innovative NanoCAPsuleS	01/10/2015	30/09/2019	DEVAN-MICROPOLIS S.A.	DEV	Cosmetic sector and smart textiles	1.Process for PCMs nanoencapsulation and application 2.Process for antimicrobial actives nanoencapsulation and application
686135	PROSETS	PROtective composite Coatings via Electrodeposition and Thermal Spraying	01/01/2016	30/06/2019	INSTITUTO DE SOLDADURA E QUALIDADE	ISQ		

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

View a different country

Finances: Planned

Finances: Implemented

EU Payments

Achievements

Programmes

Portugal, through 16 national programmes, benefits from ESIF funding of EUR 25.8 billion. This represents an average of 2474 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 Portugal 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 Portugal.

Total EU National

Country Budget for 2014-2020:

€32 691 879 162

FINANCES: PLANNED

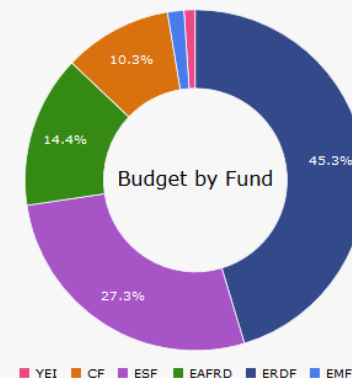
Total

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): Portugal, EUR

Explore and Share this Data



Refresh Date: 21/8/2017