



Watify

Boosting Technological Transformation

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WATIFY

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Gabrovo Innovation Days

Digital & Key Enabling Technologies matter to the European Economy



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Transformation



75% of the economic value
created by the internet arises from traditional
companies KETs represent
1 trillion EUR
or 19% of the total EU-28 production

Digital & Key Enabling Technologies matter to the European Economy



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KETs create **3.3 million jobs**
or 11% of all jobs dependent on manufacturing
1.5 million additional jobs
potential in the EU digital economy

Digital & Key Enabling Technologies matter to the European Economy



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**SMEs grow two-three times faster
embracing digital technologies**

10.000 EU SMEs

**base their businesses on the development &
commercialisation of KETs**

Digital & Key Enabling Technologies matter to the European Economy



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Positive impact of KETs on GDP growth & regional innovation performance
Big Data is the new power fuel:

40% increase per year,
5-6% higher productivity gains,
3.6% of cost reductions

A forward-looking vision



Watify is an awareness-raising campaign funded by the European Commission to support the EU efforts to **stimulate the modernisation of Europe's industry** by:

- Boosting European SMEs' **technological transformation**
- Supporting Europe's regions to translate their smart specialisation strategies in the areas of **digitisation and KETs** into **concrete projects**.

Who?



- **Local and regional policy makers**
- **SMEs**
- **Competence centres**
- **Regional development agencies (RDAs)**
- **Large companies**

Regions and Cities as poles of Digital Transformation



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Local ecosystems well connected

Development of EU-wide interregional collaborations

Development of digital local ecosystems



SMEs



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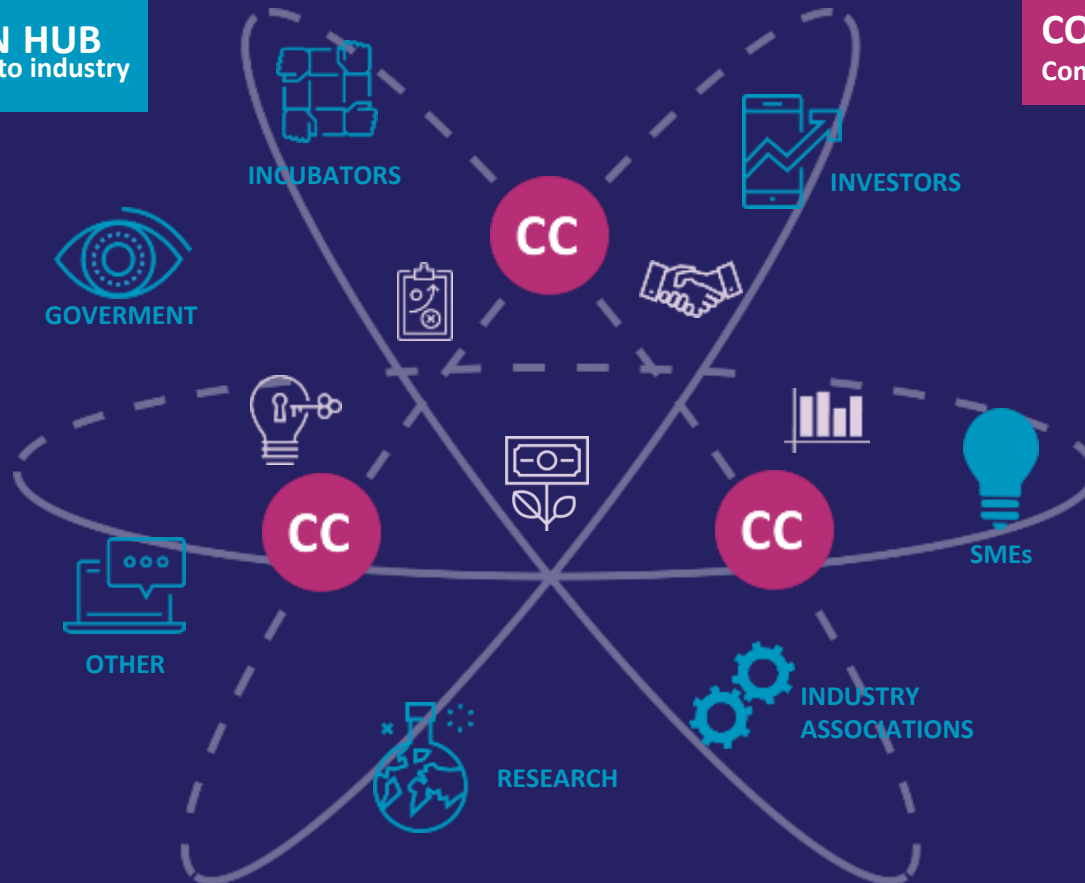


- **Make up 99.8% of all enterprises in Europe**
- **Are the ones expected to profit most from digital technologies (increased growth of up to 300%)**
- **Have created more than 85% of new jobs in the past 5 years**
- **Provide 2/3 of all jobs in the EU**

Competence Centres are the core of Digital Innovation Hubs

DIGITAL INNOVATION HUB Organised to provide services to industry

- Access to competence centres
- Development of innovation ecosystem
- Brokerage
- Access to finance
- Market intelligence
- Training and education
- Incubator/mentoring services



COMPETENCE CENTRE Competences in Digital Technologies

- Provide access to infrastructure and technology platforms
- Provide digitisation and application expertise
- Support experimentation in real-life environments
- Support fabrication of new products
- Demonstrate best practices
- Showcase technologies in pilot factories, fab-labs

KETs technology centres are open to SMEs



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KETs technology centres are open to SMEs

In 60% of EU countries SMEs are not likely to find the services they need within their national borders

→ European networks needed (RDAs)

The Commission maps existing centres. It encourages Member States and regions to invest in innovation hubs and incentivise companies to embrace technological innovations



Regional Development Agencies



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- Responsible for administering regional development funds towards economic development of their respective region
- Therefore RDAs are active in promoting industrial modernisation and digital transformation

Large companies

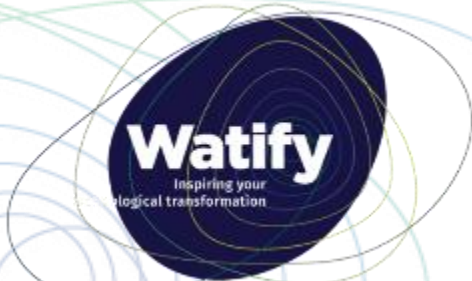


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- Can become **authorities on technological transformation** by providing SMEs with cutting-edge technology
- Opportunity to get involved in **PPPs (private-public partnerships)**



How?



- **boost and facilitate** technological transfer to SMEs and regions and cities through a network of competence centres.
- **connect** SMEs and stakeholders by facilitating the sharing of best practices, lessons learnt, ideas for advancement and by encouraging collaboration on projects.
- **inspire** SMEs and local stakeholders to transform and work together on digitisation and KETS projects.



240 AWARENESS EVENTS

in regions and cities all around Europe in the forms of:

- **WATIFY information sessions**
- **Group presentations by WATIFY ambassadors, digital icons and thematic experts**
- **Short workshops with digitisation and KETs experts**
- **Presentation of success stories and best practices**
- **Digital tours to present digitising and KETs services**
- **Online Training events**
- **Twitter chats**
- **Participation to sectoral, regional and international events**



40 Matchmaking Events

with the objectives of:

- **Fostering the development** of cross-regional cooperation projects or joint initiatives
- **Facilitating the cooperation** between SMEs, regions, cities and competence centres willing to work together on projects which demonstrate potential for cross-regional cooperation in KETs and digital transformation.
- **Optimising the involvement of all actors** towards the formulation of concrete projects which demonstrate potential for cross-regional cooperation

More than **100 SUCCESS STORIES** of:

- **SMEs** that have successfully transformed their business or created new products / services applying digital technologies and/or KETs.
- **Regions** that are leaders in technological transformation policies and projects



Example 1: Ergolines



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- **Producer of specialty steels**
- **Challenge:** reduction of slag transfer / hazardous dispersion of liquid steel at the industrial plant
- **Solution:** **High-performance computing (HPC)** was used to obtain insights about the physics of the system to finally develop **new slag monitoring technology based on complex and detailed simulation**

Benefits

- Savings of **around €490.000 to €670.000** yearly on re-melting
- Occupational safety for end-users
- Higher energy efficiency



Example 2: A69



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- **Architecture company**
- **Challenge:** educating designers and finding tech-savy collaborators; finding a suitable level of detail for 3D models
- **Solution:** In 2010, A69 decided to **digitise** and to improve through a fully-fledged 3D modelling software; design, drafting and archiving tasks were also digitised

Benefits:

- More flexible and tailored architectural design solutions
- Increased design inputs and smaller margin of error
- **Less effort** needed to meet tight deadlines and to implement short-term client wishes

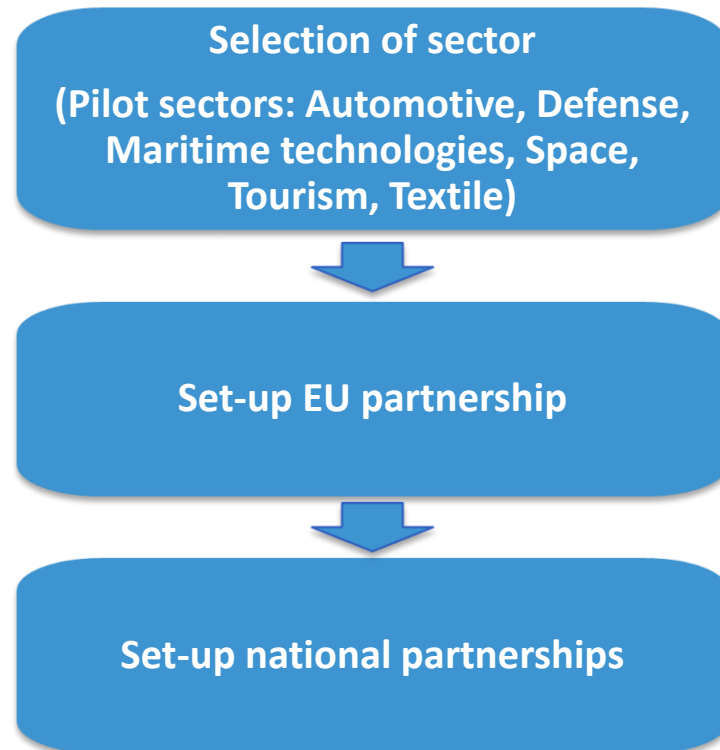


EU Skills Agenda (launched 10 June 2016)

10 actions for skill development, including:

'Blueprint for Sectoral Cooperation on Skills' to:

- **Improve skills intelligence**
- **and address skills shortages in specific economic sectors**



Financing digitalisation and KETs uptake in Europe: An overview



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EC plan to mobilise over 50 billion EUR of public and private investments for Digitisation (2016 Strategy)

KETs and Digital uptake will also be stimulated by improved access to finance

- **37 billion EUR of investments to boost digital innovation**
- **5.5 billion EUR national and regional investments in digital innovation hubs**
- **6.3 billion EUR for the first production lines of next-generation electronic components**
- **6.7 billion EUR for the European Cloud Initiative**

- **COSME financial instruments**
- **Horizon 2020 funding instruments**
- **ESI Funds**
- **Innovation Public Procurement**
- **Connecting Europe Facility**

Access to Finance for SMEs (DG GROW Portal):
<http://ec.europa.eu/growth/access-to-finance/>

Reference COM (2016) 180 Digitising European Industry,
Reaping the full benefits of a Digital Single Market

National Contact Points will help you to participate in H2020



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Mon, 27/03/2017

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Open calls [View All](#)

- FET Proactive – High Performance Computing
Deadline: 26/09/2017
- H2020-CIP-2016/2017
Deadline: 24/08/2017
- H2020-DS-2016-2017
Deadline: 25/04/2017
- H2020-EUB-2017
Deadline: 25/04/2017
- H2020-FETOPEN-2016/2017
Deadline: 27/09/2017
- H2020-ICT-2016
Deadline: 25/04/2017

Recent Partner Searches

- PS-B3-104541: ICT - Parkinson - interface for communication
- PS-ES-104477: 3D Data
- PS-ES-104460: Usability-enhanced ICT support system for children with neurological disorders and moderate cognitive impairments (USABLE)
- PS-HU-104301: MISSING LINKS to QUANTUM BRAIN SIGNAL PROCESSING
- PS-PT-104250:

ICT Events [View All](#)

- ICT Proposers' Day 2017
- Financial Training Seminar on ICT Proposals and Projects (for NCPs only)

ICT News [View All](#)

- The contractual Public-Private Partnership (cPPP) on cybersecurity was launched
- Announcement of the 2nd RAWFIE Open Call for recipients of financial support (Other calls)

Other entities that could help you:

- ✓ Enterprise Europe Network
- ✓ Digital Innovation Hubs
- ✓ Regional Development Agencies
- ✓ Technology and competence centers

National Contact Points in Bulgaria



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<http://horizon2020.mon.bg/>

What is Horizon 2020?



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- **The European Union programme for research and innovation for 2014-2020 with a budget of €77 billion (in current prices that include inflation, comprising both the TFEU and Euratom parts)**
- **A core part of Europe 2020, Innovation Union & European Research Area:**
 - Responding to the economic crisis to invest in jobs and growth
 - Addressing people's concerns about their livelihoods, safety and environment
 - Strengthening the EU's global position in research, innovation and technology

Three priorities



Priority 1. Excellent science



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- Why:
 - World class science is the foundation of tomorrow's technologies, jobs and wellbeing
 - Europe needs to develop, attract and retain research talent
 - Researchers need access to the best infrastructures

<i>European Research Council (ERC)</i> Frontier research by the best individual teams	13 095
<i>Future and Emerging Technologies</i> Collaborative research to open new fields of innovation	2 585
<i>Marie Skłodowska-Curie actions (MSCA)</i> Opportunities for training and career development	6 162
<i>Research infrastructures (including e-infrastructure)</i> Ensuring access to world-class facilities	2 390

Priority 2. Industrial leadership



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- Why:
 - Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
 - Europe needs to attract more private investment in research and innovation
 - Europe needs more innovative small and medium-sized enterprises (SMEs) to create growth and jobs

<i>Leadership in enabling and industrial technologies (LEITs)</i> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)	13 035
<i>Access to risk finance</i> Leveraging private finance and venture capital for research and innovation	2 842
<i>Innovation in SMEs</i> Fostering all forms of innovation in all types of SMEs	589 + complemented by a minimum of 20% of the total budget for societal challenges + LEITs and <i>'Access to risk finance'</i>

Priority 3. Societal challenges



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- Why:
 - Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport, etc) cannot be achieved without innovation
 - Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities
 - Promising solutions need to be tested, demonstrated and scaled up

Health, demographic change and wellbeing	7 257
Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the Bioeconomy	3 708
Secure, clean and efficient energy *	5 688
Smart, green and integrated transport	6 149
Climate action, environment, resource efficiency and raw materials	2 956
Inclusive, innovative and reflective societies	1 259
Secure societies	1 613
<i>Science with and for society</i>	<i>445</i>
<i>Spreading excellence and widening participation</i>	<i>816</i>

Strong participation by SMEs



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- **Integrated approach** - a minimum of 20% of the total budget for societal challenges and LEITs to go to SMEs
- **A new SME instrument** - a minimum of 7 % of the total budget for societal challenges and LEITs
- A dedicated activity for research-intensive SMEs in '**Innovation in SMEs**'
- '**Access to risk finance**' will have a strong SME focus (debt and equity facility)
- **Simplification** with particular benefits for SMEs (e.g. single entry point)

Examples of some EU initiatives

IMPACT Growth Accelerator



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This accelerator is going to provide funding and mentoring to an elite group of mature startups. This is a good opportunity for really outstanding startup companies from your territory.



- Selected startups will be financed with € 100,000 in cash equity free and services in the first phase. The best of these startups will subsequently be identified to be privately funded with up to € 1.5M and will receive a prize of € 150,000 in cash equity free. To enter the program, startups must adopt FIWARE technology.
- The selected applicants will participate in an Acceleration Program of training and mentoring, with a duration of 6 months subject to achievement of certain milestones. The Open Call for startups in the following verticals: Smart Cities (with Ferrovial); Media, AdTech and Content (Everis), Smart Manufacturing (Made-Lego) and AgriFood (Danone).
 - The deadline for the next call is 9th May 2017.
 - For more information: <http://www.impact-accelerator.com/>



- H2020 is also implemented through public-private partnerships where all the partners concerned commit to support the development and implementation of research and innovation activities of strategic importance to the Union's competitiveness and industrial leadership or to address specific societal challenges
- Some examples of PPPs are:
 - Future Internet - FIWARE
 - Factories of the Future (FoF)
 - Photonics
 - Robotics
 - High Performance Computing (HPC)
 - Advanced 5G networks for the Future Internet (5G)
 - Big Data

Examples of some EU initiatives

Big Data Value Public-Private Partnership



Creating a functional Data Market and Data Economy in Europe, in order to allow Europe to play a leading role in Big Data in the global market.



- Call ICT-14-2016-2017 - Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation (8 projects)
- Call ICT-15-2016-2017 - Big Data PPP: Large Scale Pilot actions in sectors best benefitting from data-driven innovation- (2 projects)
- Call ICT-17-2016-2017 - Big data PPP: Support, industrial skills, benchmarking and evaluation (1 project)
- Call ICT-18-2016 - Big data PPP: privacy-preserving big data technologies (4 projects)
- Call ICT-35-2016 - Enabling responsible ICT-related research and innovation (1 project: K-PLEX)

Examples of some EU initiatives

Next Generation Internet Initiative



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The Internet of the future should be more open, provide better services, more intelligence, greater involvement and participation. It needs to reflect the European social and ethical values: free, open and more interoperable.

The logo for the Next Generation Internet Initiative (NGI), consisting of the letters "NGI" in a bold, teal font inside a white speech bubble shape, which is set against a teal square background.

NGI

- Internet becomes ever more important for the lives of any human on this planet. It creates new business opportunities and new social paradigms for interaction, from the local to the planetary scale.
- Whereas many of the Internet developments have surpassed any expectations in terms of benefits for the citizens and the economy, there are some reasons for concern about further progress. In particular, the concentration of power in the hands of a few companies, and the relative lack or abandon of control of citizens on their own personal data, together with restrictions on Internet access because of geographical, economic or cultural reasons raise concerns.

Examples of EU initiatives

Digital Innovation Hubs



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Digital innovation hubs are ecosystems that consist of SMEs, large industries, startups, researchers, accelerators, and investors. They aim to create the best conditions for long-term business success for all involved.

Digital innovation hubs can help ensure that every company, small or large, high-tech or not, can grasp the digital opportunities. There are already several initiatives of the EC to shape the pan-European network of DIHs with the focus on helping SMEs to master their digital transformation:

- Innovation for Manufacturing SMEs ([I4MS](#)),
 - Smart Anything Everywhere ([SAE](#)),
 - [iHub](#),
 - Open Data Incubator Europe ([ODINE](#)),
 - European Institute of Innovation & Technology ([EIT](#)) Knowledge and Innovation Community ([KIC](#)),
 - European Coordination Hub for Open Robotics Development ([ECHORD++](#)),
 - Access Center for Photonics Innovation Solutions and Technology Support ([ACTPHAST](#)),
 - Supercomputing Exercise for SMEs ([SESAME NET](#)),
- and the [call for tender EU13 DIHs](#).



European Commission project I4MS (ICT Innovation for Manufacturing SMEs)

Promoting leading-edge technologies
(Robotics, HPC simulation, Laser, and
Intelligent sensors)

Open to the entire European
manufacturing industry, to address
their needs in accessing new
technologies

Two main instruments:

- Projects for developing advanced manufacturing technologies
- Open calls for experiments to address manufacturing challenges





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**Example of call (already close deadline 28th March 2017)
Rising Awareness: Fostering partnerships for investments**

European Commission actions on Advanced Manufacturing (INNOSUP & COSME)

**INNOSUP - EU network of
technology centres providing
services to SMEs
(4.9 M€, H2020 INNOSUP-03-2017)**



**Advanced manufacturing support
centre (ADMA) helping SMEs to
make informed investment decisions
(2.4 M€, COSME, 2017-2020)**



- **Help SMEs assessing the adoption of advanced manufacturing solutions;**
- **Set-up learning networks of next-generation factories, to inspire other manufacturing companies.**

COSME financial instruments

(support for creating favourable business environment) €2.3bn 2014-2020

Access to finance for SMEs



✓ **Loan Guarantee Facility (LGF)** – Single EU Debt Financial Instrument – Guarantees and counter-guarantees (securitisation and SME debt finance portfolios) to financial intermediaries to help provide loans and leases to SMEs.

✓ **Equity Facility for Growth (EFG)** – Single EU Equity Financial Instrument – Investment in selected funds to finance the expansion and growth stage SMEs (seeds, venture capital, mezzanine).



Horizon2020 (*innovation-driven growth*)

(http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=home&video=none)

Horizon2020 Financial instruments

(InnovFIN – EU finance for innovators)

- ✓ SME Guarantee Facility – Guarantees and counter-guarantess to financial intermediaries to support
- ✓ SMEs and Mid-Caps, budget of €1 bn, allowing €9 to 10 bn of financing to SMEs and Mid-Caps
- ✓ InnovFIn Equity – Equity investments in approx. 45 funds, for a total of €4 to 5 bn investment



Horizon2020 (*innovation-driven growth*)

(http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=home&video=none)

Grants and other support under Horizon

- ✓ SME instrument - €3 bn funding -(Grants for SMEs)
- ✓ Innovation Radar (Price and support for projects participating under Horizon2020, FP7 and CIP)
- ✓ ICT Innovation Vouchers (Voucher scheme implemented at local level, regions are beneficiaries)
- ✓ Horizon Prices - €6m first five prices- (Reward for solution in technology and societal challenge, companies, organisations and individuals can apply)



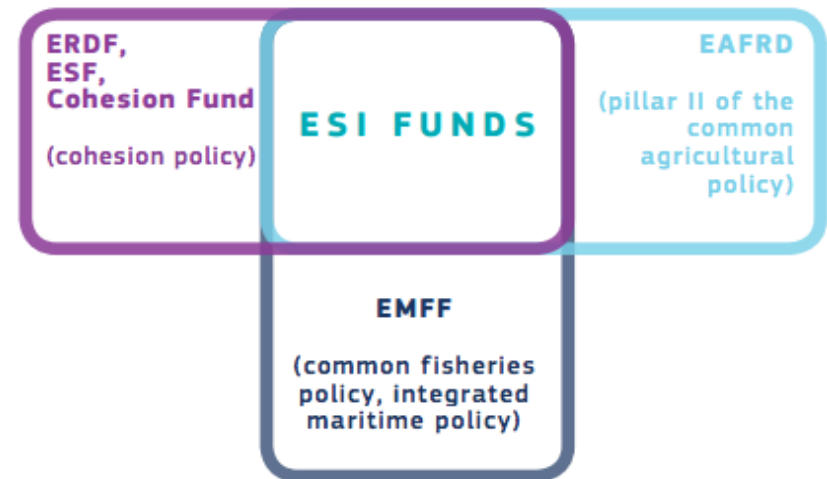
European Structural and Investment Funds (ESI Funds)

(http://ec.europa.eu/contracts_grants/funds_en.htm)

Shared management European Commission & Member States/Regions.

Budget of €454 billion for 2014-20, among
which:

- ✓ Research and Innovation theme: € 65bn
- ✓ Information and Communication
Technology: € 20bn
- ✓ Competitiveness of SMEs: € 95bn





European Structural and Investment Funds (ESI Funds)

(http://ec.europa.eu/contracts_grants/funds_en.htm)

ESI Funds are to develop and support actions related to the key Union priorities of smart, sustainable and inclusive growth in line with the objectives of each Fund. Five ESI Funds:

- ✓ **the European Regional Development Fund (ERDF);**
- ✓ **the European Social Fund (ESF);**
- ✓ **the Cohesion Fund;**
- ✓ the European Agricultural Fund for Rural Development (EAFRD);
- ✓ the European Maritime and Fisheries Fund (EMFF).

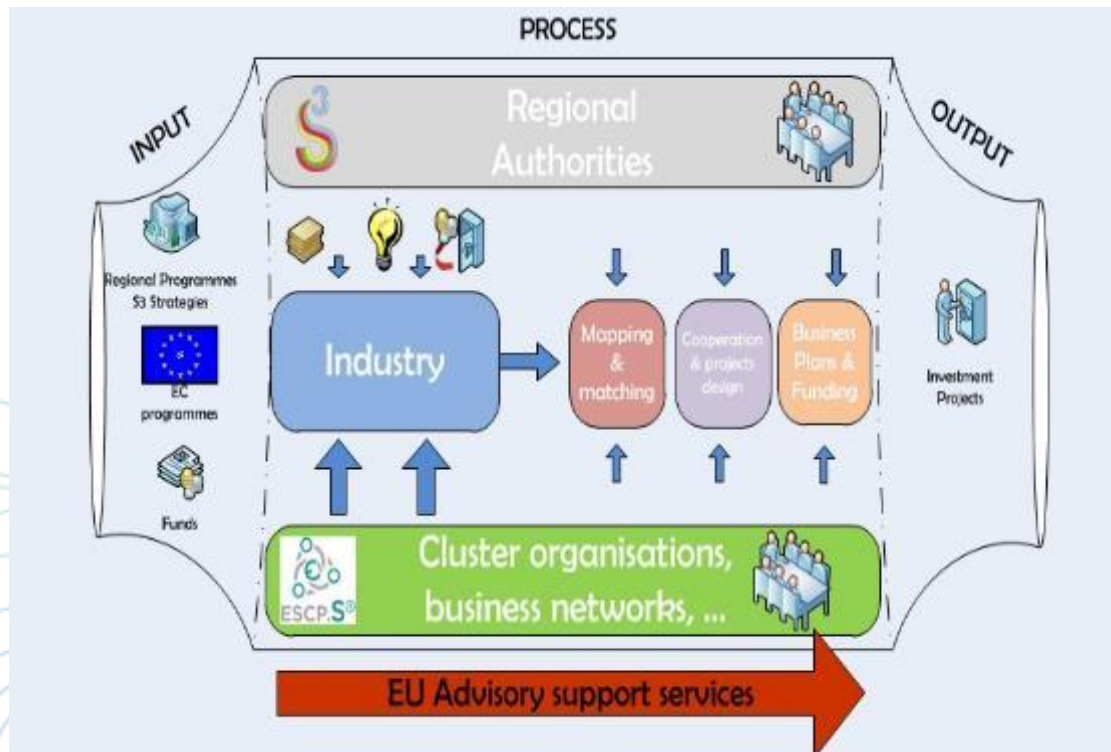
Other information on **National level support measures** to be found under the Regional Innovation Monitor repository, at:
[https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/search/site/?f\[0\]=bundle%3Asupport_measure](https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/search/site/?f[0]=bundle%3Asupport_measure)

Rising Awareness: Fostering partnerships for investments



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European Commission Smart Specialisation Platform for Industrial Modernisation (S3P)



Create investment pipeline of projects between & across regional value chains

Development of new or sharing of existing infrastructures (e.g. testing facilities, data centres)

Support to networking and matchmaking to ease access to expert, financial advice and IPR



Other support & references...

Public procurement

✓ Innovation Procurement
Digital Single Market

✓ Public procurement of
innovative products and
services

Connecting Europe Facility (CEF) – Digital Single Market (grants, procurement, financial instruments, seed funding with EIB)

A budget of EUR 1.14 billion, out of which EUR 170 million are for Broadband activities, while EUR 970 million are dedicated to Digital Service Infrastructures (DSIs) delivering networked cross-border services for citizens, businesses and public administrations.

Managed by INEA (Innovation and Networks Executive Agency)

EU Access to Finance portal for loans and venture capital

(including EU-backed Small Business Loans) <http://access2eufinance.ec.europa.eu>

EFSI (European Fund for Strategic Investments)

– Including “Support for Small Businesses and MidCap Companies” target.
Total of €16 bn guarantee from EU budget (EIB & EC), in addition to €5 bn from EIB budget.

Watify is



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240

AWARENESS EVENTS

in regions and cities all
across Europe

40

**MATCHMAKING
EVENTS**

for smart cooperation
and investment

100

SUCCESS STORIES

of technological
transformation

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Horizon2020 (*innovation-driven growth*)

(http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=home&video=none)

EUREKA/EUROSTARS Programme.

Support to international innovative projects led by R&D-performing SMEs

- ✓ involve at least two partners from two different Eurostars participating country,
- ✓ involve at least one other partner from another Eurostars participating country, and
- ✓ last no longer than three years.