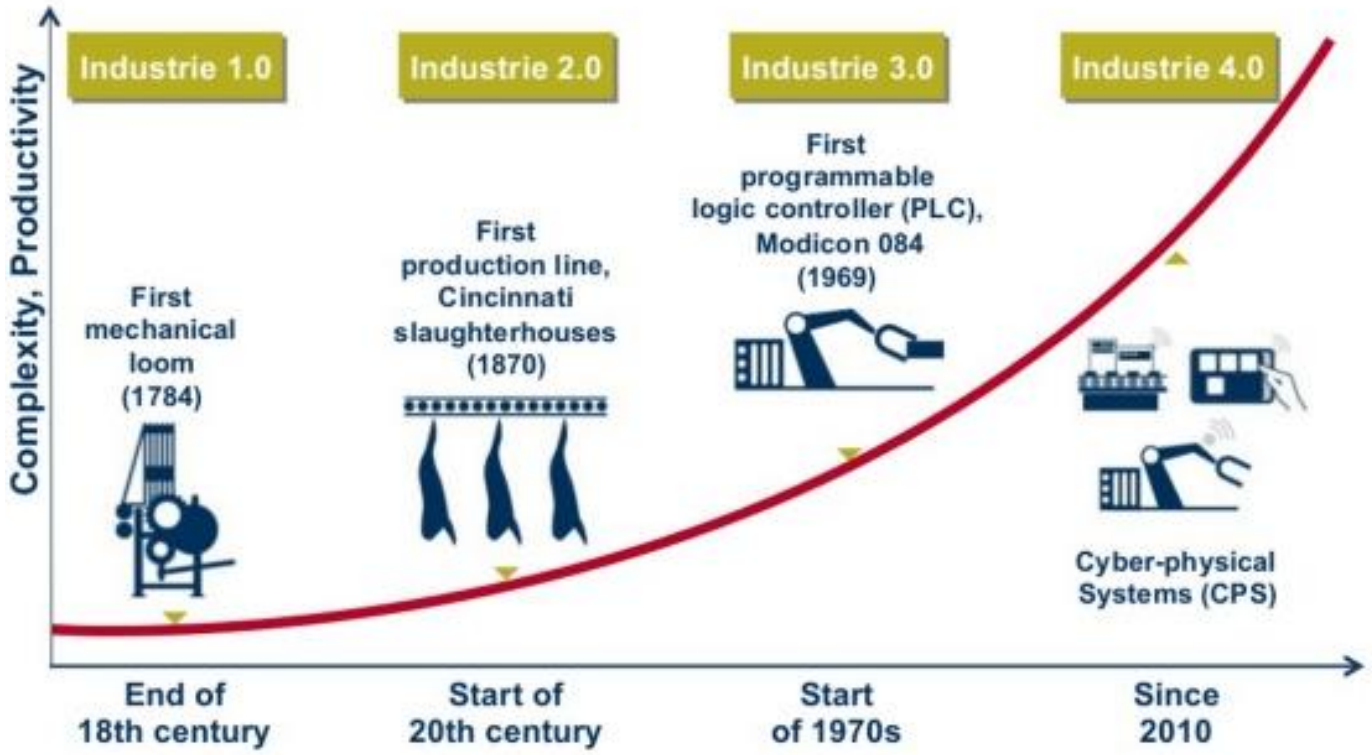
Digital Skills for Future Work

TEAC 2016 | Ghent, 7 October 2016

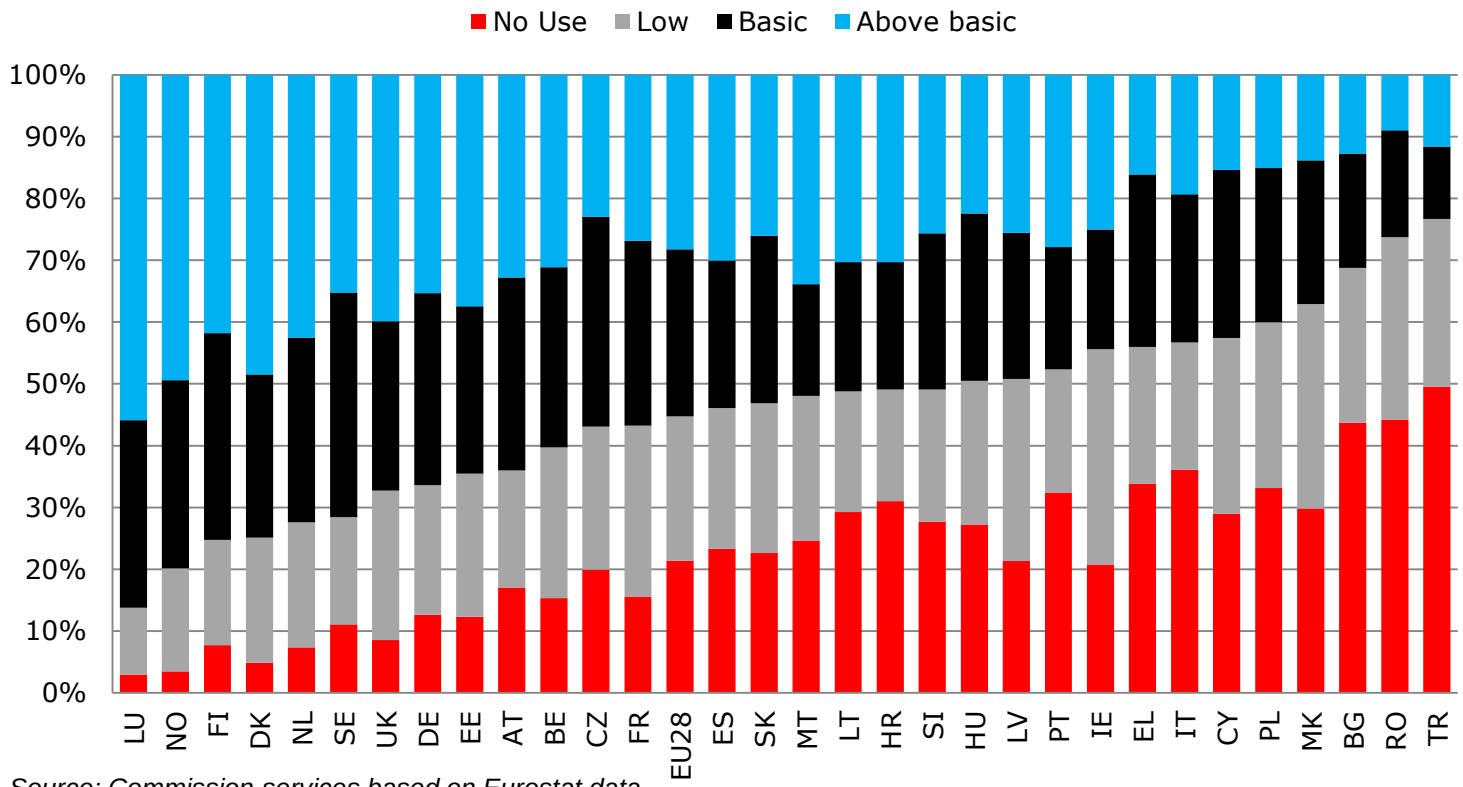
European Commission

Industry 4.0: The New Industrial Revolution



45% of the EU population has insufficient digital skills, 21% has none at all…

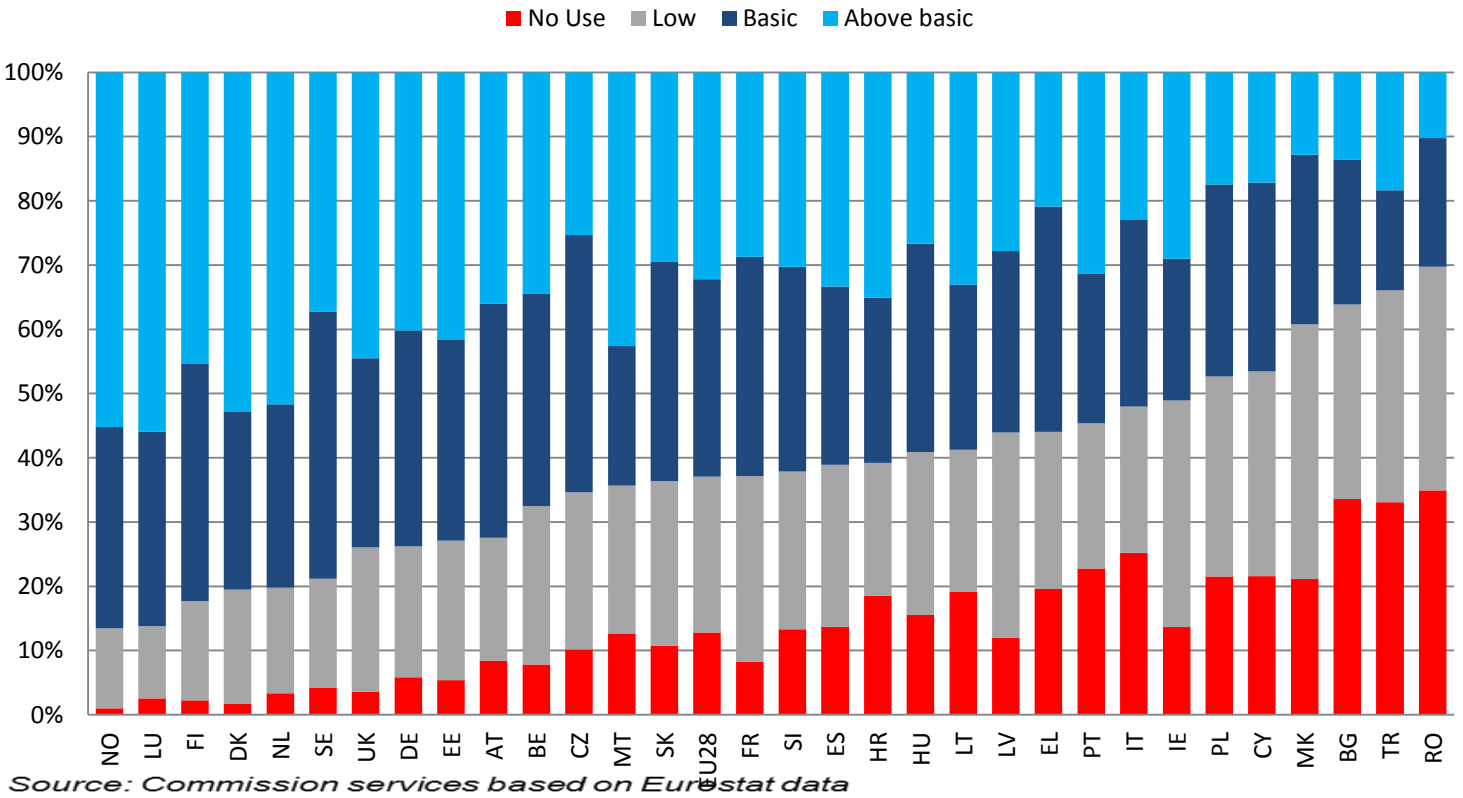
Digital skills in the EU, NO, MK and TR, 2015
(% individuals with above basic, basic and low digital skills and no internet use)



Source: Commission services based on Eurostat data

and 37% of the EU workforce has insufficient digital skills,13% have no digital skills at all

Digital skills of the labour force, 2015 (% labour force with above basic, basic and low digital skills and no internet use)



Source: Commission services based on Eurostat data

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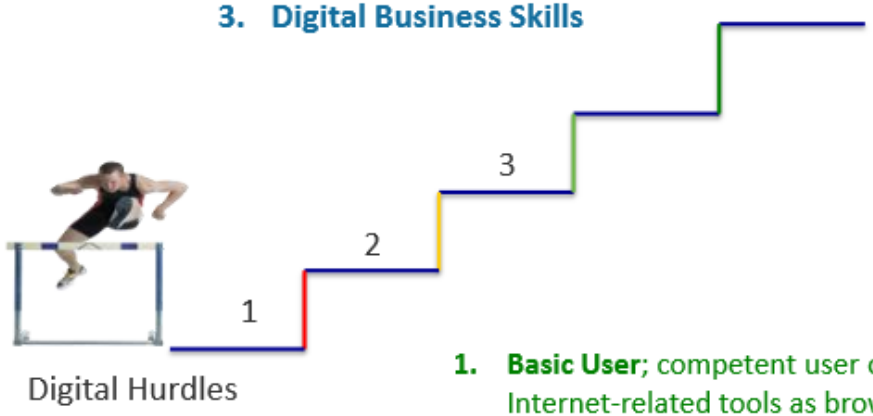
The Stair of Digital Competences

1. **Digital User Skills**
2. **Digital Practitioner Skills**
3. **Digital Business Skills**



Digital Hurdles

1. **Basic User**; competent user of generic tools (office suites, Internet-related tools as browser and e-mail clients) for information society, e-government and working life; to be informed and inform
2. **Advanced User**; competent user of advanced and often sector specific software tools; workplace
3. **Digital Specialists**; ability to develop, operate and maintain digital systems; digital is the main part of their jobs

eit Digital

European Commission

e-Skills Gap in Europe

Estimates (November 2015)

empirica and IDC

European Commission

The Communication on Digitising European Industry (2016)


EUROPEAN COMMISSION

Brussels, 19.4.2016
COM(2016) 180 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Digitising European Industry
Reaping the full benefits of a Digital Single Market

{SWD(2016) 110}

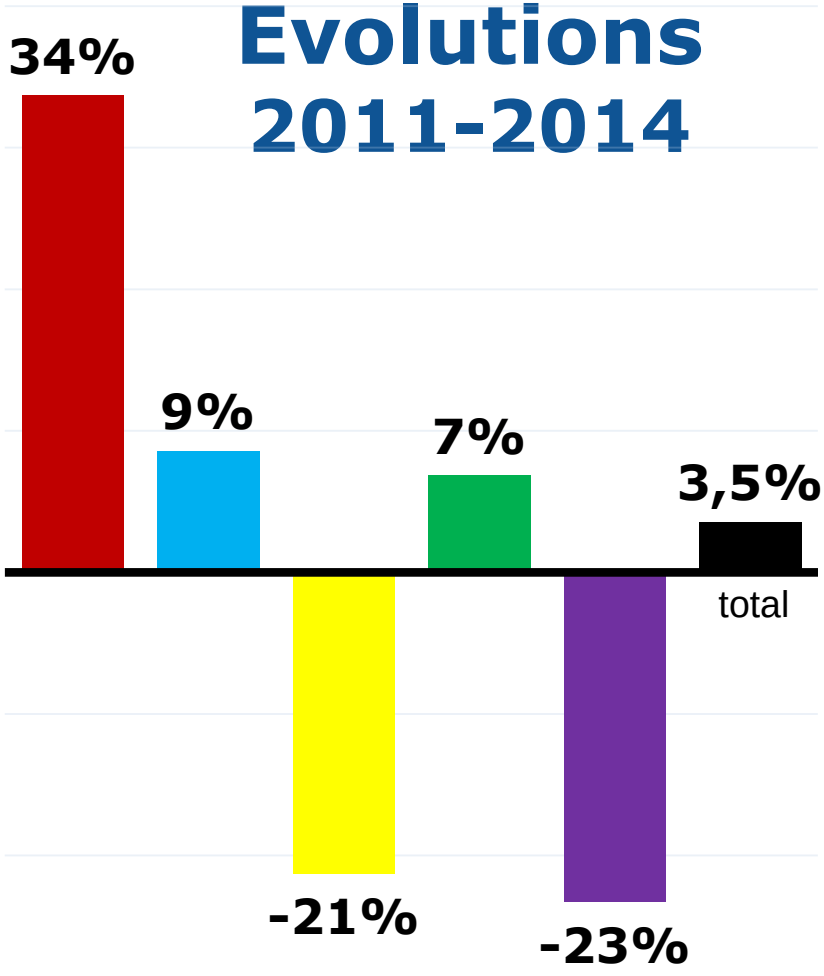
EN EN

- Coordinate national and regional initiatives on digitising industry by maintaining a continuous EU-wide dialogue with all actors involved.
- Focus investments in EU's public-private partnerships and strongly encourage the use of the opportunities offered by the EU Investment Plan and European Structural and Investment Funds.
- Invest €500 million in a pan-EU network of digital innovation hubs (centres of excellence in technology) where businesses can obtain advice and test digital innovations.
- Set up large-scale pilot projects to strengthen internet of things, advanced manufacturing and technologies in smart cities and homes, connected cars or mobile health services.
- Adopt future-proof legislation that will support the free flow of data and clarify ownership of data generated by sensors and smart devices. The Commission will also review rules on safety and liability of autonomous systems.
- Present an EU skills agenda that will help give people the skills needed for jobs in the digital age.

Upskilling European Industry

- ✓ Digital transformation is disruptive and creates widening skills gaps
- ✓ Some jobs will disappear, others will require new competencies
- ✓ New job profiles will be created
- ✓ Need of proactive leaders

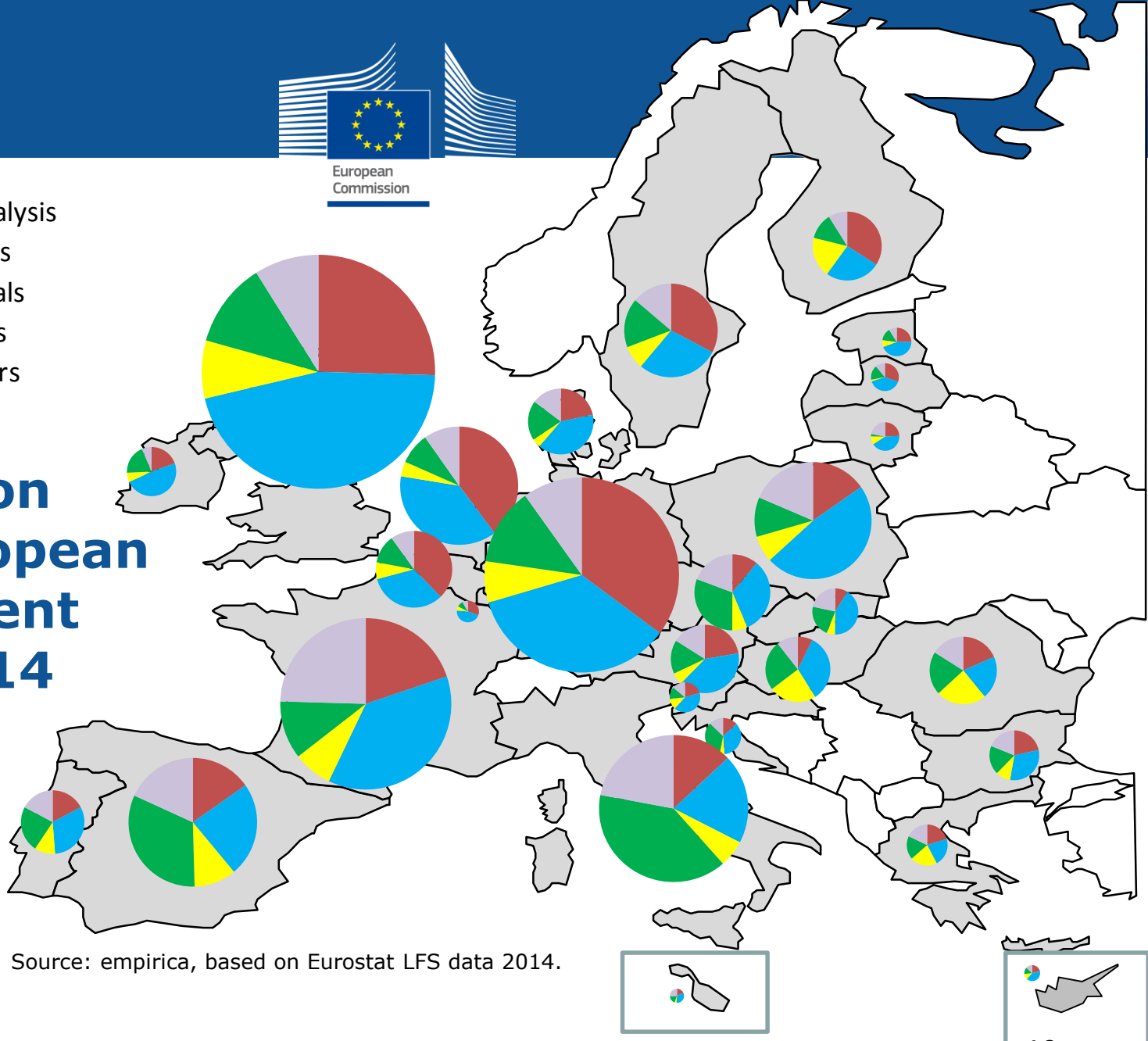
Evolutions 2011-2014



Management, architecture and analysis	ICT managers Management and organization analysts (partly) Systems analysts
Core ICT practitioners - professional level	Software developers Web and multimedia developers Applications programmers Other software and app developers and analysts Database designers and administrators Systems administrators Computer network professionals Other database and network professionals
Other ICT practitioners - professional level	Electronics engineers Telecommunications engineers IT trainers ICT sales professionals
Core ICT practitioners - associate/ technician level	ICT operations technicians ICT user support technicians Computer network and systems technicians Web technicians
Other ICT practitioners - associate/ technician level	Electronics engineering technicians Process control technicians not elsewhere classified Air traffic safety electronics technicians Medical imaging and therapeutic equipment technicians Medical records and health information technicians Broadcasting and audio-visual technicians Telecommunications engineering technicians

Source: empirica based on Eurostat LFS data

Composition of the European Digital Talent Pool in 2014



Source: empirica, based on Eurostat LFS data 2014.

IT Professionalism and Leadership

DEVELOPMENT AND IMPLEMENTATION OF A EUROPEAN FRAMEWORK FOR THE IT PROFESSION

Interim report, June 2016

A document prepared for the European Commission: Executive Agency for Small and Medium-sized Enterprises (EASME) and the Directorate-General Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) by:

Capgemini Consulting · EY Building a better working world · IDC Analyze the future

www.eskills-scale.eu

European Commission

DIGITAL LEADERSHIP

- CIOs, large corporations
- January 2013 – March 2015
- www.eskills-guide.eu
- www.eskills2014conference.eu

- SMEs and Start-ups
- January 2014 – September 2015
- www.eskills-lead.eu
- www.leadership2015.eu

SKILLS FOR KEY ENABLING TECHNOLOGIES

- January 2014 – October 2015
- www.leadership2015.eu

Addressing the Digital Skills Challenge

Digital Skills and Jobs Coalition (1 December 2016)

- Reaching out to **all sectors** as all sectors become digital
- Involve **Member States and stakeholders** in designing and delivering solutions: national skills strategies and national partnerships for digital skills by 2017, joint targets in December 2016 (expert group, ET2020)
- **Best-practice exchange**, pledges and joint training programmes, link to Blueprint for sectoral cooperation on skills
- Better use of European and national **funds**

Blueprint for Sectoral Cooperation on Skills

New Skills Agenda for Europe (June 2016)

Sectoral skills partnerships, in industry and services, will be set up at EU level and then rolled out at national level to:

- Translate sectoral strategies for the next 5-10 years into identification of skills needs and development of concrete solutions, such as joint development of higher VET opportunities and business-education-research partnerships;
- Support, where relevant, agreements on the recognition of sectoral qualifications and certifications.
- Encourage private investment and promote more strategic use of relevant EU and national funding programmes.

Implementation of the Blueprint

- Initially piloted in a demand driven process in **six sectors**, with preparatory work starting in 2016:
  - ✓ Automotive
  - ✓ Maritime technology
  - ✓ Space (earth observation)
  - ✓ Defence
  - ✓ Textile/clothing/leather/footwear
  - ✓ Tourism
- Additional areas (construction, steel, health, green technologies and renewable energies) will be assessed in a second wave of implementation starting as of 2017.

European Commission

On 17th and 18th October 2016, more than 200 policy makers, business leaders and experts will gather in Bratislava (Slovakia) to understand how digital technologies are transforming our lives at a pace never seen before. The impact on the way be live, learn, work has been revolutionary; this new age of information and our networked society continue to transform our entire way of being, both personally and professionally. This digital transformation relies on the availability of appropriate digital skills for all citizens, from the youngest to the oldest, as acquiring such skills will have a positive impact on finding jobs, reducing unemployment and integrating all citizens into the national life.

President of the Slovak Republic Mr. Andrej Kiska took the patronage over the international eSkills for Jobs 2016 High level conference „Europe in Digital Era"

http://eskills4jobs.sk/