

This Net4Society factsheet aims at informing research and innovation actors about established framework on which suppose these digital transformations.

## The Fourth Industrial Revolution

The Fourth Industrial Revolution aims to leverage differences between the physical, digital, and biological sphere. It integrates cyber-physical systems and the Internet of Things, big data and cloud computing, robotics, artificial-intelligence based systems and additive manufacturing. Compared to previous industrial revolutions, the fourth one is evolving at an exponential rather than at a linear pace.

This development can potentially raise globe income levels and improve the quality of life for populations around the world.

## New Skills Agenda for Europe recognizes Digital Skills as basic skills

The strategy aims at making better use of the skills that are available; equip people with the new skills that are needed – to help them find quality jobs and improve their life chances, by ensuring a strong coordination between Members States, social partners, the industry and other stakeholders. With technology changing almost every aspect of our lives, to have the right skills is essential in the digital age. In the future, 90% of all jobs will need some sort of digital skills.

Today and in the years to come, digital skills are a basic requirement to get ahead in society as well as in the modern workplace. In this context the Commission proposes 10 actions to be taken forward over the next two years.

A number are announced with the adoption of the new Skills Agenda for Europe on 10 June 2016:

- A Skills Guarantee to help low-skilled adults acquire a minimum level of literacy, numeracy and digital skills and progress towards an upper secondary qualification.
- A review of the European Qualifications Framework and the related annexes for a better understanding of qualifications and to make better use of all available skills in the European labour market.
- The 'Digital Skills and Jobs Coalition' to support co-operation among education, employment and industry stakeholders.
- The 'Blueprint for Sectoral Cooperation on Skills' to improve skills intelligence and address skills shortages in specific economic sectors.

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

The manufacturing industry, and its interplay with services, is playing an important role in putting Europe's economy back on track. At the same time, a new industrial revolution, driven by new generations of digital technologies such as big data, is taking place. Progress in digital technologies in combination with other key enabling technologies is changing the way we design, produce, commercialise and generate value from products and related services. <https://ec.europa.eu/digital-single-market/en/news/communication-digitising-european-industry-reaping-full-benefits-digital-single-market>

### To know more:

The Fourth Industrial Revolution : [https://ec.europa.eu/digital-single-market/fourth-industrial-revolution?utm\\_source=twitter&utm\\_medium=social&utm\\_content=Digitizing%20Industry&utm\\_campaign=4IR](https://ec.europa.eu/digital-single-market/fourth-industrial-revolution?utm_source=twitter&utm_medium=social&utm_content=Digitizing%20Industry&utm_campaign=4IR)

New Skills Agenda for Europe <http://ec.europa.eu/social/main.jsp?catId=1223&langId=en>

European Commission's **Communication**: A New Skills Agenda for Europe – Working together to strengthen human capital, employability and competitiveness.

Transforming our world: the 2030 Agenda for Sustainable Development [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)

UN,s Sustainable Development Goals: <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

Digitising and transforming European industry and services' focus area (DT): The mission is to support digitisation as a driver of this major transformation in an integrated manner [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-intro\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-intro_en.pdf)

Europe's Digital Progress Report 2017 (EDPR) <https://ec.europa.eu/digital-single-market/en/news/europes-digital-progress-report-2017>  
European Interoperability Framework – Implementation Strategy (COM/2017/134) <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2017:134:FIN>

A deeper and fairer Single Market factsheet: <http://ec.europa.eu/DocsRoom/documents/13446/>

Mid Term review Digital Single Market <https://ec.europa.eu/digital-single-market/en/news/digital-single-market-mid-term-review>

Investment Plan for Europe: the Juncker: Plan Stimulating investment and creating jobs [https://ec.europa.eu/commission/priorities/jobs-growth-and-investment\\_en](https://ec.europa.eu/commission/priorities/jobs-growth-and-investment_en)

The future of the productivity book <https://www.oecd.org/eco/OECD-2015-The-future-of-productivity-book.pdf>

## DIGITAL TRANSFORMATIONS

**TRANSFORMATIONS-03-2018-2019: Innovative solutions for inclusive and sustainable urban environments & TRANSFORMATIONS-04-2019-2020: Innovative approaches to urban and regional development through cultural tourism**



Policy review on Research and Innovation for Sustainable Urban Dynamics: EC list of projects [http://ec.europa.eu/research/social-sciences/pdf/policy\\_reviews/sustainable-urban-dynamics\\_en.pdf#view=fit&pagemode=none](http://ec.europa.eu/research/social-sciences/pdf/policy_reviews/sustainable-urban-dynamics_en.pdf#view=fit&pagemode=none)

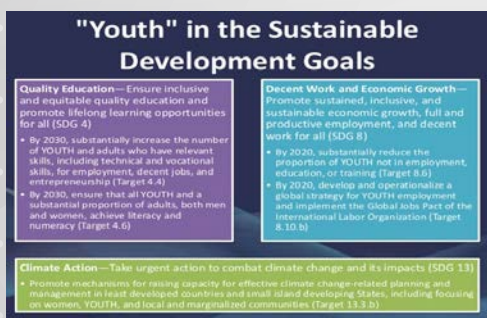


JPI URBAN EUROPE projects <http://jpi-urbaneurope.eu>

Smart Specialization Platform <http://s3platform.jrc.ec.europa.eu/home>

Urban Dimension of cohesion Policy [http://ec.europa.eu/regional\\_policy/en/policy/themes/urban-development/](http://ec.europa.eu/regional_policy/en/policy/themes/urban-development/)

**DT- TRANSFORMATIONS-07-2019: The impact of the technological transformations on children and youth Policy framework:**



Schools survey on ICT education <https://ec.europa.eu/digital-single-market/en/survey-schools-ict-education>

Education Expert group with digital skills competences [https://ec.europa.eu/education/policy/strategic-framework/expert-groups/digital-skills-competences\\_fr](https://ec.europa.eu/education/policy/strategic-framework/expert-groups/digital-skills-competences_fr)

Development of Skills

[https://ec.europa.eu/education/policy/strategic-framework/skills-development\\_en](https://ec.europa.eu/education/policy/strategic-framework/skills-development_en)

Key Competences for Lifelong Learning

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006H0962&from=EN>

**TRANSFORMATIONS -14 -2018 : Supply and demand-oriented economic policies to boost robust growth in Europe – Addressing the social and economic challenges in Europe**

Joint Eurostat – DG RTD event on “Challenges in measuring productivity, growth and intangibles” (17 March 2017 in Brussels) as one of the satellite events of the Eurostat biannual conference “New Techniques and Technologies for Official Statistics – Increasing Data Relevance for All”.

The aim of the satellite event was to review the progress on concepts and data in measuring for productivity, growth and intangibles in the context of globalisation – issues ranking high on the economic policy agenda in Europe.

[https://www.conference-service.com/NTTS2017/documents/agenda-data/sessions/session\\_67.html](https://www.conference-service.com/NTTS2017/documents/agenda-data/sessions/session_67.html)



**FP7 projects for research results and data sets:**

**EUKLEMS** - “Productivity in the European Union: A Comparative Industry Approach: [www.euklems.eu](http://www.euklems.eu)

**INNODRIVE** – “Intangible capital and innovations: drivers of growth and location in the EU”: [www.innodrive.org](http://www.innodrive.org)

**CO-INVEST**- “Competitiveness, innovation and Intangible investment in Europe”: [www.co-invest.org](http://www.co-invest.org)

Joint data set **INTAN-INV.net**: which joins and harmonises the INNODRIVE and CO-INVEST dataset [www.intan-inv.net](http://www.intan-inv.net)

**WIOD** – “World-Input-Output-Tables”: [www.WIOD.org](http://www.WIOD.org)

**SPINTAN** – “Smart public intangibles”: [www.spintan.net](http://www.spintan.net)