ICT Research & Innovation

The ICT sector represents 4.8% of the European economy.

It generates 25% of total business expenditure in Research and Development (R&D), and investments in ICT account for 50% of all European productivity growth. EU investments in ICTs are due to increase by about 25% under Horizon 2020 compared to FP7. This EU investment will support the whole chain from basic research to innovation that can deliver new business breakthroughs, often on the basis of emerging technologies.

Information and Communication Technologies underpin innovation and competitiveness across private and public sectors and enable scientific progress in all disciplines. Thus in H2020, ICT-related topics can be found in all priorities, from 'Excellence Science' to 'Industrial Leadership', to 'Societal Challenges'.

'Research will cover the radically new technological possibilities through the ‘Future and Emerging Technologies’ [2], including FET Flagships, and the ‘European research infrastructures’ ('eInfrastructures'). Within the new research programme, integrating more than ever research and innovation, Future and Emerging Technologies (FET) will go beyond its historical role of path-finding information technologies: it will open to all technologies thus strengthening its multidisciplinary aspects to turn Europe's excellent science base into a competitive advantage.

Research and innovation activities on generic ICT technologies either driven by industrial roadmaps or through a bottom up approach are addressed in the 'Industrial Leadership' [3] pillar, more specifically in the 'Leadership in enabling and industrial technologies' (LEIT [4]) part of the work programme, under the section 'Information and communication technologies'. In particular, the topics addressed in the first two years of the programme cover the ICT technology value chain in a comprehensive way, from key enabling technologies up to content and information management technologies, robotics and networking technologies. Several cross-cutting topics addressing cybersecurity, Internet of Things and research on Human-centric Digital Age are included. All activities are complemented with support to innovation and take-up and international cooperation.

In addition, three ICT-related topics are integrated in the Factory of the Future (FoF) PPP.

A number of essential EU policy objectives on health, ageing, climate, environment, energy, transport, public sector modernisation, security cannot be achieved without ICT innovation. ICT also invades and transforms bit by bit all aspects of our societies and economies and change the way people live and behave. Multi-disciplinary, application-driven research and innovation actions leveraging ICT to tackle societal challenges are included in the different 'Societal Challenges' [5] parts of the programme.

A quick, but comprehensive guide to all ICT-related topics in the Work Programme for 2016-2017 can
be downloaded [6].


Links:
Digital single Market [8]
Digital single Market - Environment [9]
Digital single Market - Mobility [10]
Digital single Market - Smart Cities [11]
Digital single Market - Public Services [12]
Related Horizon 2020 sections:
Information and Communication Technologies [13]
Leadership in Enabling and Industrial Technologies [14]
Health, Demographic Change and Wellbeing [15]
Secure, Clean and Efficient Energy [16]
Smart, Green and Integrated Transport [17]
Climate Action, Environment, Resource Efficiency and Raw Materials [18]
Europe in a changing world - Inclusive, innovative and reflective societies [19]
Secure societies – Protecting freedom and security of Europe and its citizens [20]

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Links