H2020

LEIT ICT WP2014-15

podľa

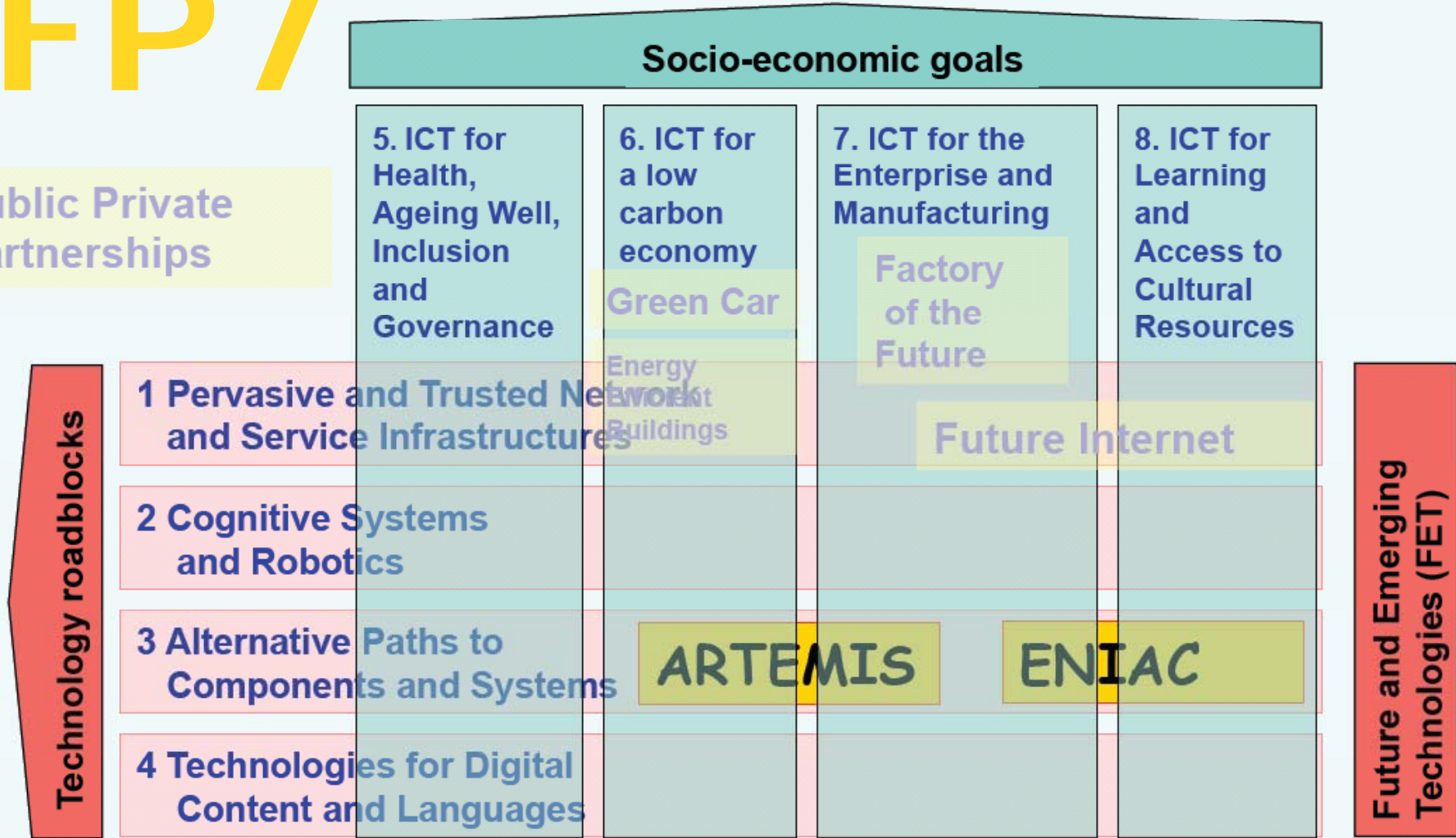**Morten Møller,** DG CONNECT

Horizon 2020 programme sections

Excellent Science

• European Research Council

• Future and Emerging Technologies

• Marie Skłodowska-Curie actions

• European Research Infrastructures

Industrial Leadership

• Leadership in Enabling and Industrial Technologies

• Information and Communication Technologies

• Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology

• Space

Societal Challenges

• Health, Demographic Change and Wellbeing

• Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy

• Secure, Clean and Efficient Energy

• Smart, Green and Integrated Transport

• Climate Action, Environment, Resource Efficiency and Raw Materials

• Europe in a changing world - Inclusive, innovative and reflective societies

• Secure societies – Protecting freedom and security of Europe and its citizens

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ICT in Excellent Science

E-Infra-structures

Digital Science

High-Performance Computing (HPC) Strategy

Future and Emerging Technologies

Individual research projects

Early Ideas

FET Open

Open research clusters

Incubation

FET Proactive

Common research agendas

Large-Scale Initiatives

FET Flagships

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Draft Workprogramme Objectives

Future and Emerging Technologies Calls
FET Open

FET OPEN 1	2014/2015: FET - Open Research projects	77	77
FET OPEN 2	2014: Cordination & Support Activities 2014	3	
FET OPEN 3	2015: Cordination & Support Activities 2015		3

FET Proactive

FETPROACT 1	2014: Global Systems Science (GSS)	10	
FETPROACT 2	2014: Knowing, doing, being: cognition beyond problem solving	15	
FETPROACT 3	2014: Quantum simulation	8	2

Call FET Proactive towards exascale high performance computing

FETHPC-1	2014: HPC Core Technologies, Programming Environments and Algorithms for Extreme Parallelism and Extreme Data Applications	93.4	
FETHPC-2	2014 HPC Ecosystem Development		4

Call FET -Flagships-tackling grand interdisciplinary science and technology challenges

FETFLAG 1	2014: Framework Partnership Agreement	no budget	no budget
FETFLAG 2	2015: Graphene FET Flagship Core Project		89
FETFLAG 3	2015: Human Brain Project FET Flagship Core Project		89
FETFLAG 4	2014/2015: Policy environment for FET Flagships	1.6	

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FET Flagships
Graphene & Human Brain Project selected

Operational
ramp-up phase
mid 2013- end 2015

Flagship
selection
6 → 2
end 2012

Preparatory
Phase Pilots
05/11 - 04/12

Call for
Preparatory Actions
21 → 6
July 2010

Stimulating ideas &
structuring the
scientific community
2009 - 2010

SCIENCE WORLD REPORT sciencewr.com

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Brain Simulation and Graphene Research Receive Billion Euro Each

0 Comments   Like 7   Tweet 3   Share   E-mail   Print

Mark Hoffman   First Posted: Jan 28, 2013 09:57 AM EST

The result of the highly anticipated decision of which two research projects will receive a one billion Euro research grant, the largest single research award ever, from the European Commission were announced by the European Commission's Vice-President Neelie Kroes today.
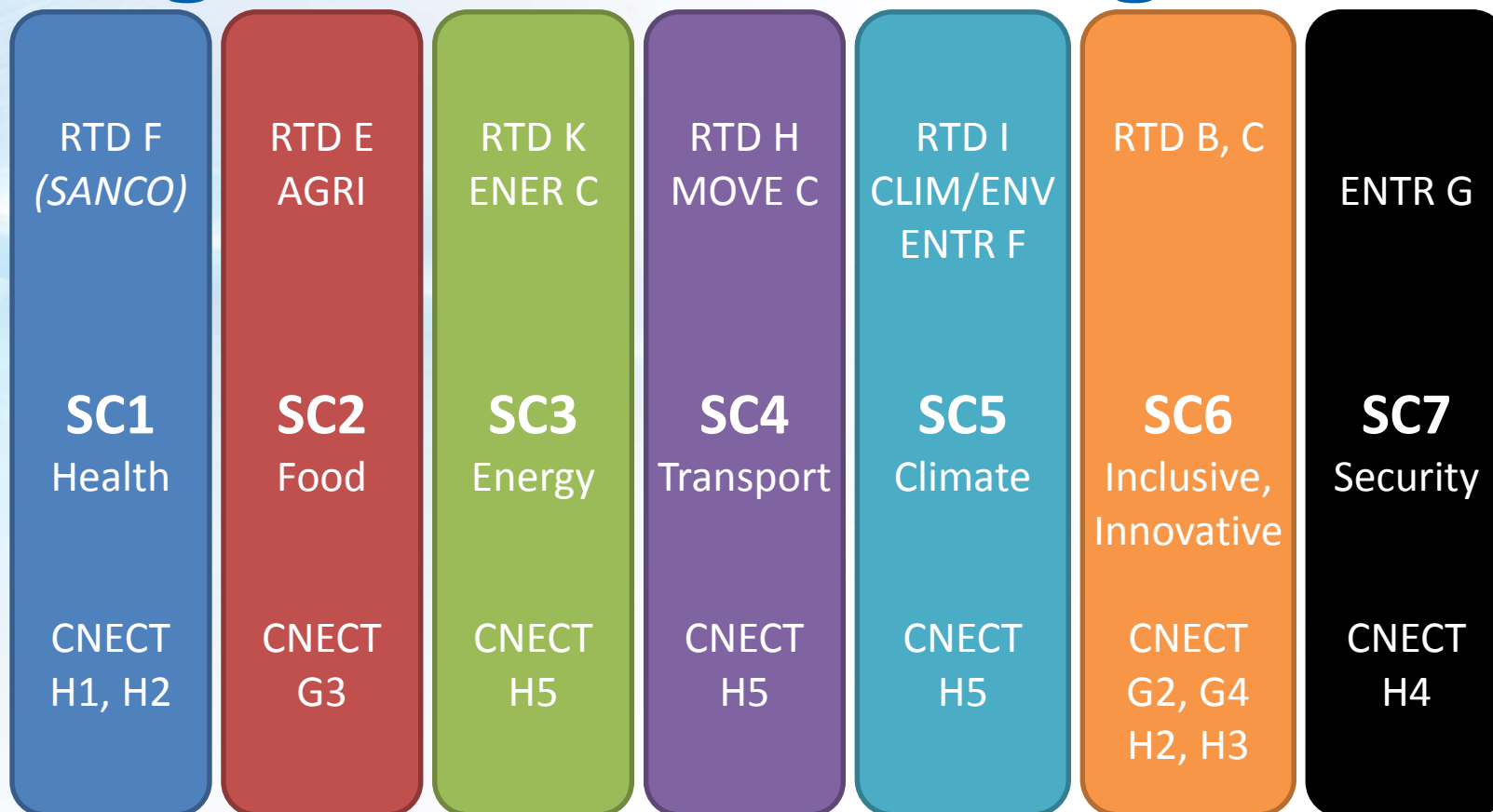
The first project is the Human Brain Project, led by neuroscientist Henry Markram at the Swiss Federal Institute of Technology (EPFL) in Lausanne, which aims to simulate the human brain in a supercomputer, in order to aid medical advancement in brain disorders.

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The second, called Graphene Project, is led by theoretical physicist Jari Kinaret at Chalmers University of Technology in Gothenburg, Sweden. It's goal is to develop the awesome

H2020 Societal Challenges Organisational Configuration

SC1 Health	SC2 Food	SC3 Energy	SC4 Transport	SC5 Climate	SC6 Inclusive, Innovative	SC7 Security
RTD F (SANCO)	RTD E AGRI	RTD K ENER C	RTD H MOVE C	RTD I CLIM/ENV ENTR F	RTD B, C	ENTR G
CNECT H1, H2	CNECT G3	CNECT H5	CNECT H5	CNECT H5	CNECT G2, G4 H2, H3	CNECT H4

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SC1 Health and wellbeing

- **Advancing active and healthy ageing**

  Service robotics within assisted living environments

  ICT solutions for independent living with cognitive impairments

  ICT solutions enabling early risk detection and intervention

- **Integrated, sustainable, citizen-centred care**

  ICT-based approaches for integrated care (beyond current state-of-art in tele-health and tele-care)

  Mobile Health

  Public-procurement of innovative eHealth services

- **Improving health information and data exploitation**

  Decisional support systems

  eHealth interoperability

SC4 Smart, green and integrated transport

ICT offer the tools to address sustainability of transport systems, congestion and road fatalities effectively.

- **ICT pilots** addressing smart, energy-efficient and safe mobility
- **Connected mobility** - linking vehicles and people on the move
- **(Semi-)Automated driving** for increased efficiency and safety
- Cooperative **Intelligent Transportation** Systems (C-ITS)

✓ 20% higher energy efficiency

✓ 10% less traffic congestion

✓ 10% fully electric vehicles in Europe

✓ 30% less road fatalities

✓ 30% less injured persons and an increase

✓ 50% in reliability of transport schedules by 2020

SC7 Securing the Digital Society

- Protecting our society by providing sustained **trust in the usage of ICT** and in securing the ICT underlying our digital society.

- Demonstrating the viability and maturity of state-of-the-art security solutions in **large scale demonstrators**, involving end users

- **Preventing cyber-attacks** on any component of the digital society

- **Ensuring freedom and privacy in the digital society**, protecting the fundamental values of our society and democratic rights of our citizens in cyberspace

- Protect the weak in our society from abuses over the internet and **giving the user control over his private data** and the uses that are made thereof

Draft ICT LEIT
Work-programme 2014-15

ICT in Industrial Leadership

1. **Components and systems**
2. **Advanced Computing**
3. **Future Internet**
4. **Content technologies and information management**
5. **Robotics**
6. **Key Enabling Technologies: Micro- nano-electronics and photonics**

+ Factory of the Future cPPP

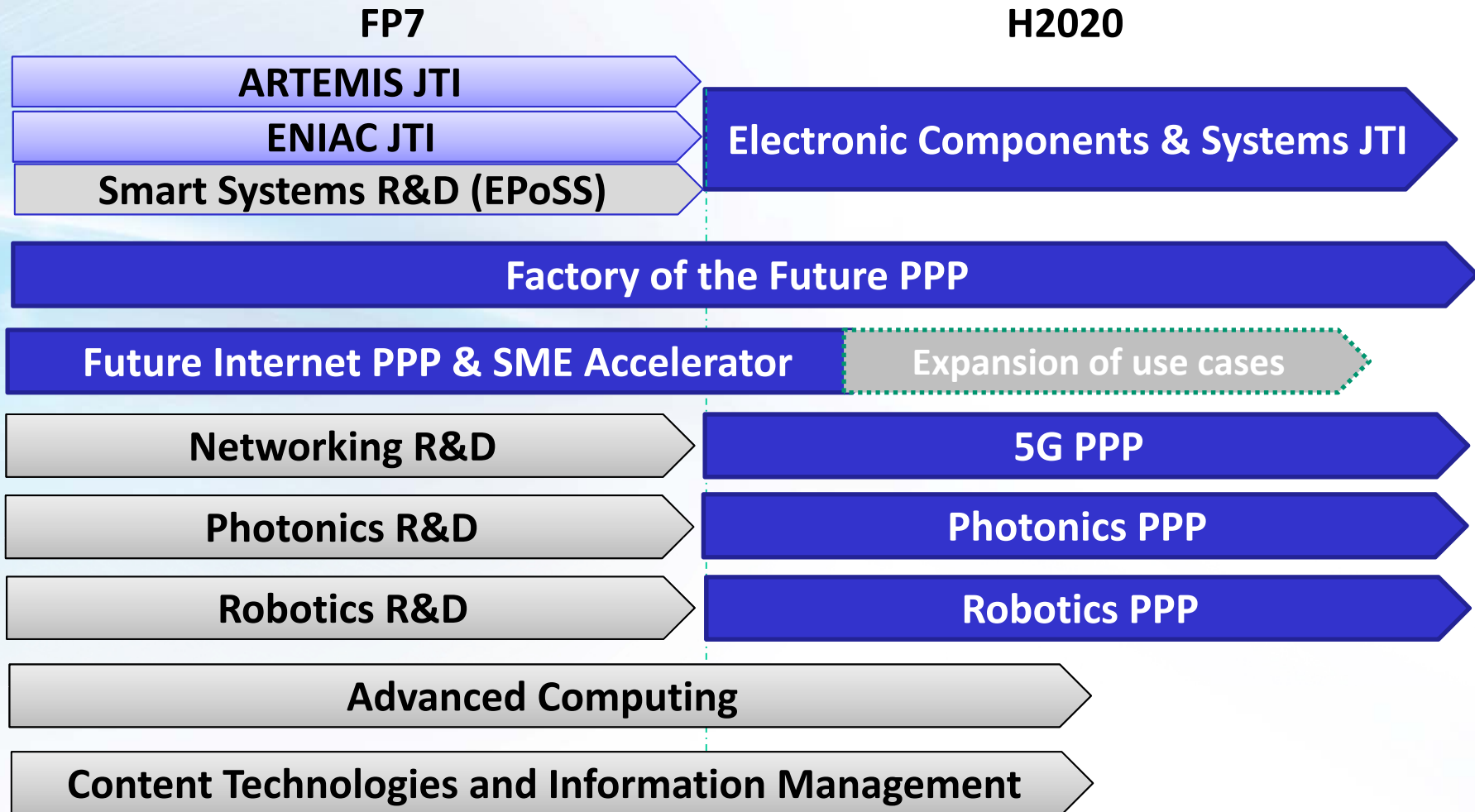**+ International Cooperation actions (EU-Brazil, EU-Japan)**

ICT Cross cutting activities:

- **Internet of Things**
- **Human-centric Digital Age**
- **Cybersecurity**
- **Support to NCPs**

ICT Innovation actions

- **Access to finance**
- **Innovation policy support**
- **Open disruptive innovation scheme (SME instrument)**

ICT Roadmap-based research: Continuity and consolidation

FP7	H2020
ARTEMIS JTI	
ENIAC JTI	**Electronic Components & Systems JTI**
Smart Systems R&D (EPoSS)	

Factory of the Future PPP

Future Internet PPP & SME Accelerator	Expansion of use cases
Networking R&D	**5G PPP**
Photonics R&D	**Photonics PPP**
Robotics R&D	**Robotics PPP**

Advanced Computing

Content Technologies and Information Management

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H2020 ICT Calls 2014-15

A new generation of components and systems

ICT 1 – 2014: Smart Cyber-Physical Systems

ICT 2 – 2014: Smart System Integration

ICT 3 – 2014: Advanced Thin, Organic and Large Area Electronics (TOLAE) technologies

Advanced Computing

ICT 4 – 2015: Customised and low power computing

Future Internet

ICT 5 – 2014: Smart Networks and novel Internet Architectures

ICT 6 – 2014: Smart optical and wireless network technologies

ICT 7 – 2014: Advanced Cloud Infrastructures and Services

ICT 8 – 2015: Boosting public sector productivity and innovation through cloud computing services

ICT 9 – 2014: Tools and Methods for Software Development

ICT 10 – 2015: Collective Awareness Platforms for Sustainability and Social Innovation

ICT 11 – 2014: FIRE+ (Future Internet Research & Experimentation)

ICT 12 – 2015: Integrating experiments and facilities in FIRE+

ICT 13 – 2014: Web Entrepreneurship

ICT 14 – 2014: Advanced 5G Network Infrastructure for the Future Internet

H2020 ICT Calls 2014-15

Content technologies and information Management

ICT 15 – 2014: Big data and Open Data Innovation and take-up

ICT 16 – 2015: Big data – research

ICT 17 – 2014: Cracking the language barrier

ICT 18 – 2014: Support the growth of ICT innovative Creative Industries SMEs

ICT 19 – 2015: Technologies for creative industries, social media and convergence

ICT 20 – 2015: Technologies for better human learning and teaching

ICT 21 – 2014: Advanced digital gaming/gamifcation technologies

ICT 22 – 2014: Multimodal and Natural computer interaction

Robotics

ICT 23 – 2014: Robotics

ICT 24 – 2015: Robotics

Micro- and nano-electronic technologies, Photonics

ICT 25 – 2015: Generic micro- and nano-electronic technologies

ICT 26 – 2014: Photonics KET

ICT 27 – 2015: Photonics KET

ICT 28 – 2015: Cross-cutting ICT KETs

ICT 29 – 2014 Development of novel materials and systems for OLED lighting

H2020 ICT Calls 2014-15

ICT Cross-Cutting Activities
ICT 30 – 2015: Internet of Things and Platforms for Connected Smart Objects
ICT 31 – 2014: Human-centric Digital Age
ICT 32 – 2014: Cybersecurity, Trustworthy ICT
ICT 33 – 2014: Trans-national co-operation among National Contact Points

Horizontal ICT Innovation actions
ICT 34 – 2015: Support for access to finance
ICT 35 – 2014: Innovation and Entrepreneurship Support
ICT 36 – 2015: Pre-commercial procurement open to all areas of public interest requiring new ICT solutions
ICT 37 – 2014-15: Open Disruptive Innovation Scheme (implemented through the SME instrument)
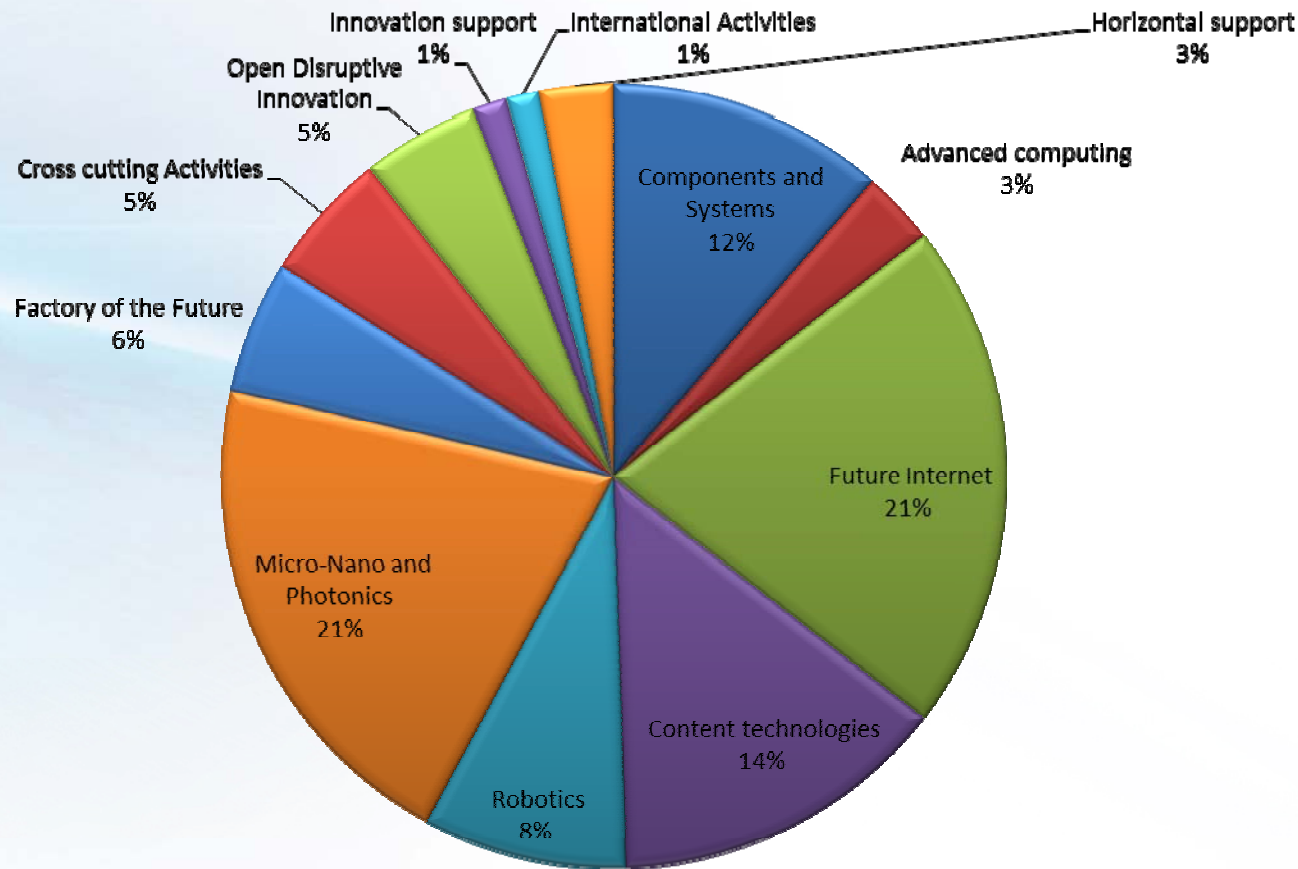**ICT 38 – 2015: International partnership building and support to dialogues with high income countries**
ICT 39 – 2015: International partnership building in low and middle income countries

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ICT LEIT Budget Overview

- Innovation support 1%
- International Activities 1%
- Horizontal support 3%
- Open Disruptive Innovation 5%
- Advanced computing 3%
- Cross cutting Activities 5%
- Components and Systems 12%
- Factory of the Future 6%
- Future Internet 21%
- Micro-Nano and Photonics 21%
- Content technologies 14%
- Robotics 8%

Simplified Funding Model

- **1 reimbursement rate** by action:

  Up to <u>100%</u> for research and innovation actions

  Up to <u>70%</u> for innovation and programme co-fund actions (non-profit entities up to 100%)

- 1 method for calculation of **indirect costs**:

  <u>Flat rate of 25%</u> of total direct costs, excluding subcontracting, costs of third parties and financial support to third parties

- Certificate on **financial statements**:

  When cumulated amount ≥ 325,000EUR (actual costs + average personnel costs)

  To be submitted with the request for payment of balance

Overview of calls for ICT LEIT WP2014-15

- H2020-ICT-2014 (ICT Call 1):

  Publication date: 11 December 2013

  Deadline: **23 April 2014** (all topics except 5G Future Internet)

  Deadline for 5G Future Internet: 23 September 2014

- H2020-FoF-2014/2015 (Factory of the Future):

  Publication date: 11 December 2013

  Deadlines: May 2014 and December 2014

- H2020-EUJ-2014 (EU-Japan Call):

  Publication date: 11 December 2013

  Deadline: May 2014

- H2020-ICT-2015 (ICT Call 2)

  Publication date: July 2014

  Deadline: **20 January 2015**

- H2020-EUB-2015 (EU-Brazil Call):

  Publication date: December 2014

  Deadline: April 2015

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https://ec.europa.eu/research/participants/portal/desktop/en/