

# EU 7<sup>th</sup> Framework Programme ICT Theme

**Helsinki  
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# Agenda, Sep 4

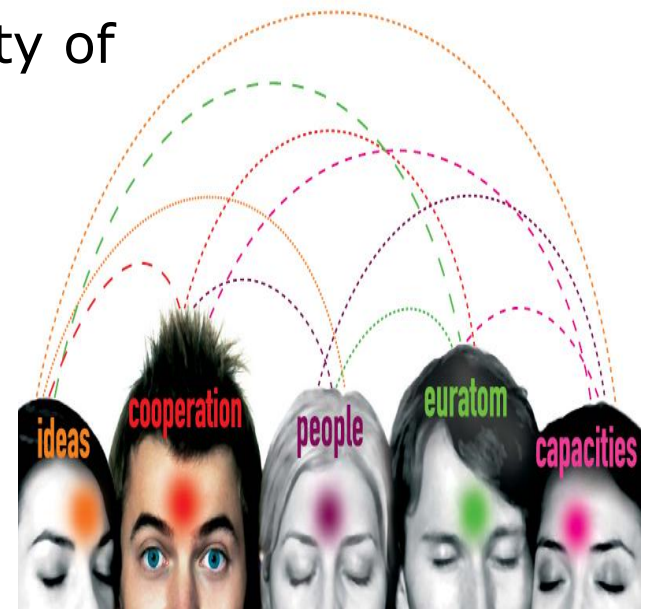
- Background of the EU 7th Framework Programme
- ICT Theme within the 7FP
- ICT Work Programme 2013
- Partner Search
- Horizon 2020 Overview

# ICT Theme Objective

- Improving the competitiveness of European industry and enabling Europe to master and shape future developments in ICT so that the demands of its society and economy are met. Activities will
  - continue to strengthen Europe's scientific and technology base and ensure its global leadership in ICT
  - help drive and stimulate product, service and process innovation and creativity through ICT use and value creation in Europe
  - ensure that ICT innovations are rapidly transformed into jobs and growth for the benefits of Europe's citizens, businesses, industry and governments

# FP7 Basic Principles

- **Public calls for proposals**
  - detailed in annual work-programmes, currently WP 2013, the last WP in FP7
- **Peer review**
  - competitive selection based on scientific and technological excellence, quality of management and potential impact
- **Trans-national cooperation**
- **Cost-sharing**
- **Participants own the results**



# ICT in FP7 - Where do we stand?

- Behind us
  - ICT CfPs under WP 2007-08, WP 2009-10 and WP 2011-12
    - 5025M€ funding committed (15% to SMEs)
    - 1483 projects launched and contracts signed
    - 14365 participations (4644 distinct organisations)
  - Calls under two Joint Technology Initiatives (Artemis and Eniac) and the Ambient Assisted Living Joint Programme (AAL) in 2008, 2009, 2010 and 2011
  - ICT WP 2011-12 Calls 8 and 9 (DL:1/2012; 4/2012)
    - Call 9 received 645 proposals
      - About 80 proposals and 627 participants (10 from Finland) to be funded
      - Call 9 budget: 271 M€
- Currently on-going
  - >> **ICT WP 2013** <<
    - ~1480 M€ funding for projects

# WP2013 Main features (I)

## 1. Continuity

- Completing the work engaged over the first 6 years of FP7

## 2. Preparing the expected launch of Horizon 2020

- More integrated approach between research and innovation anticipated
- Reorganize several areas (e.g. Future Internet PPP) to adapt to H2020 structure
- Prepare for a new major ICT activity on "Next Generation Computing" in H2020 in Challenges 1, 3, 6 and 12
- Prepare for new PPPs in the areas of robotics and photonics

# WP2013 Main features (II)

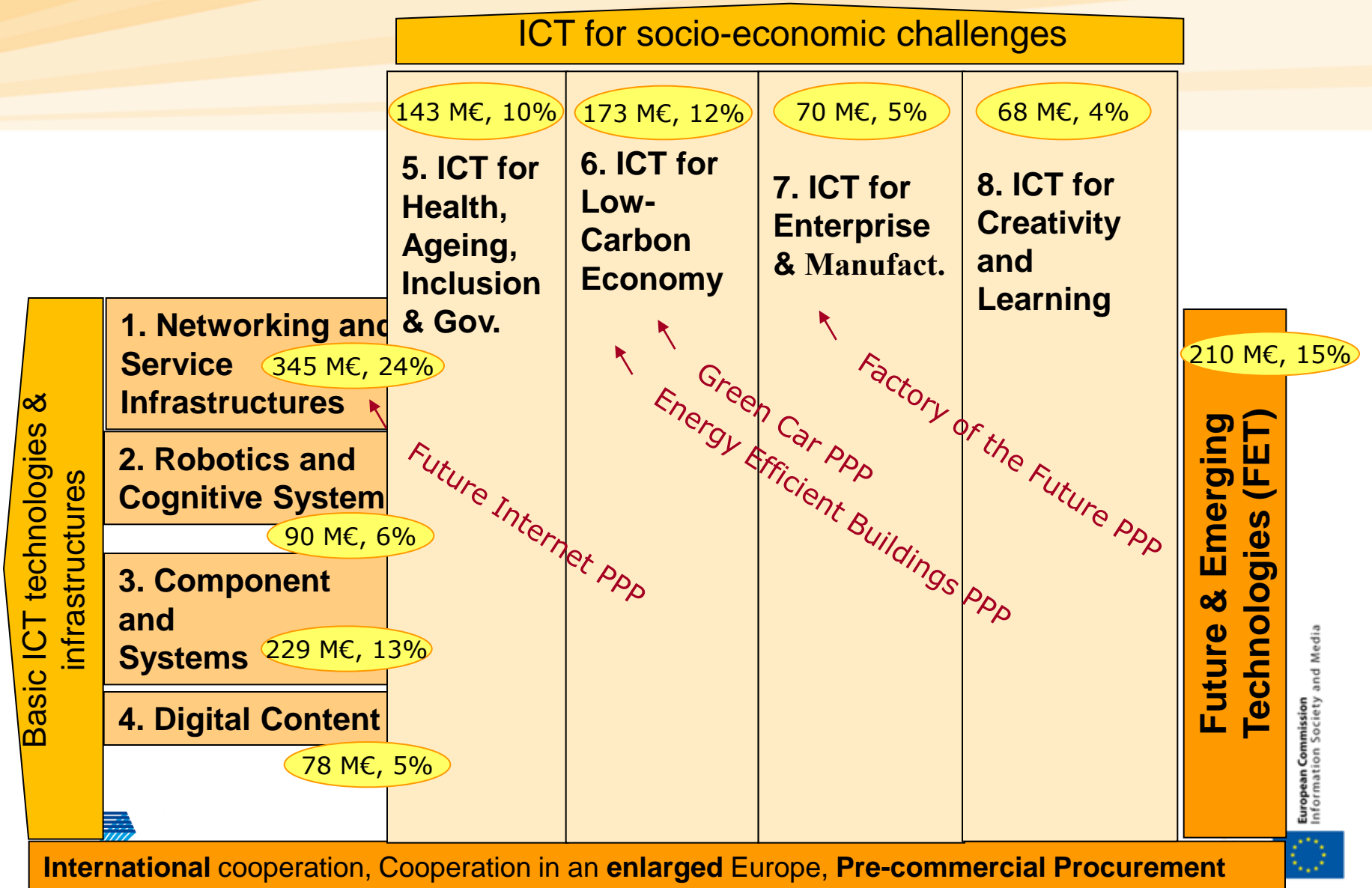
## 3. Involving more SMEs

- Specific SME-targeted activities (Components and Systems, Future Internet PPP, Analytics and FET Open)
- Horizontal activities on access to venture capital (11.5)

## 4. Contributing to broader policy agendas

- European wide initiatives like the European Cloud Partnership (ECP), European Innovation Partnership (EIP) on Active and Healthy Ageing (AHA), Smart Cities etc. supported

# FP7/ICT Programme Structure



International cooperation, Cooperation in an enlarged Europe, Pre-commercial Procurement





# Pervasive and trusted network and service infrastructures

- Continue roadmap based research
- Leverage new constituencies (innovative SMEs)
- Software systems laying the basis for the future European Cloud strategy
- Combine technological and social innovation by investigating and experimenting new paradigms related to the Internet
- To open the Future Internet PPP platform following an open innovation model



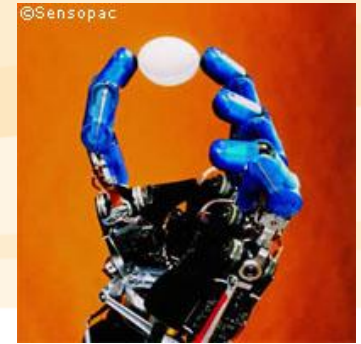
# CHALLENGE 1: PERVASIVE AND TRUSTED NETWORK AND SERVICE INFRASTRUCTURES

1.1 Future Networks		48,5 M€
1.2 Software Engineering, Services and Cloud Computing	<a href="mailto:Michel.Lacroix@ec.europa.eu">Michel.Lacroix@ec.europa.eu</a>	41,5 M€
1.3 Digital Enterprise	<a href="mailto:Isidro.Laso@ec.europa.eu">Isidro.Laso@ec.europa.eu</a>	16 M€
1.4 A reliable, smart and secure Internet of Things for Smart Cities	<a href="mailto:Cristina.Martinez@ec.europa.eu">Cristina.Martinez@ec.europa.eu</a>	20 M€
1.5 Trustworthy ICT	<a href="mailto:Rodrigo.Mendes@ec.europa.eu">Rodrigo.Mendes@ec.europa.eu</a>	36,5 M€
1.6 Connected and Social media	<a href="mailto:Jorge.Santos@ec.europa.eu">Jorge.Santos@ec.europa.eu</a>	33,4 M€
1.7 Future Internet Research Experimentation (FIRE)	<a href="mailto:Joel.Baquet@ec.europa.eu">Joel.Baquet@ec.europa.eu</a>	19 M€
1.8 PPP FI: Expansion of Use Cases		100 M€
1.9 PPP FI: Technology Foundation Extension and Usage		30 M€

# CHALLENGE 1: PERVASIVE AND TRUSTED NETWORK AND SERVICE INFRASTRUCTURES

- Objective ICT-2013.1.1 Future Networks
- a) Next generation **wireless and mobile broadband** systems, based on **flexible spectrum** usage and reduced EMF and interference.
- b) High throughput low-latency infrastructures, based on dynamic **all-optical core** networks.
- c) **Internet architectures** enabling innovation in network virtualization, specifically through programmability of network functions and protocols.
- d) Tighter integration of satellite and terrestrial communications as a **critical infrastructure**, in particular for public safety/security applications.
- e) Coordination and support actions for (re)structuring the research effort in the sector.

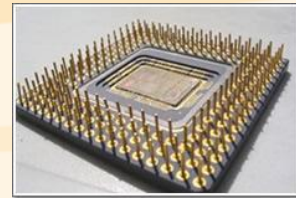
## Robotics and cognitive systems



- Further support to cognitive systems, smart spaces and intelligent robotic systems
- Special emphasis will be on industrial involvement, use cases and accompanying measures to exploit and support the uptake of promising technologies

2.1 Robotics, Cognitive Systems and Smart Spaces, Symbiotic Interaction	<a href="mailto:Cecile.Huet@ec.europa.eu">Cecile.Huet@ec.europa.eu</a>	67 M€
2.2 Robotics use cases & Accompanying measures	<a href="mailto:Cecile.Huet@ec.europa.eu">Cecile.Huet@ec.europa.eu</a>	23 M€

# Alternative paths to components and systems



- Covers nanoelectronics and photonics, heterogeneous integration, and advanced computing and control systems
- Energy-, resource- and cost efficiency as well as recycling/end of life issues
- “More than Moore”, “Beyond CMOS”

3.1 Nanoelectronics		32 M€
3.2 Photonics		61 M€
3.3 Heterogeneous Integration and take-up of Key Enabling Technologies for Components and Systems	<a href="mailto:Henri.Rajbenbach@ec.europa.eu">Henri.Rajbenbach@ec.europa.eu</a>	64 M€
3.4 Advanced Computing, embedded and Control systems	<a href="mailto:Panagiotas.Tsarchopoulos@ec.europa.eu">Panagiotas.Tsarchopoulos@ec.europa.eu</a>	72,5 M€



## Technologies for Digital Content and Languages



- Creating the conditions to become leading supplier of analytics tools
- Encompass multimodality (text, speech/audio, video) and unstructured content analytics
- Reuse of public sector information
- Specific initiative on analytics for SMEs

4.1 Content analytics and language technologies	<a href="mailto:PierrePaul.Sondag@ec.europa.eu">PierrePaul.Sondag@ec.europa.eu</a>	27 M€
4.2 Scalable data analytics		31 M€
4.3 SME initiative on analytics	<a href="mailto:PierrePaul.Sondag@ec.europa.eu">PierrePaul.Sondag@ec.europa.eu</a>	20 M€

# ICT for Health, Ageing Well, Inclusion and Governance

- Adaptation of challenge 5 to support the European Innovation Partnership on Active and Healthy Ageing
- Empower the individual to improve and manage both personal and professional life conditions and participation
- Governance work on interactive platforms for social interaction and crowd sourcing
- A new activity for social innovation

# ICT for Health, Ageing Well, Inclusion and Governance

5.1 Personalised Health, active ageing and independent living	<a href="mailto:Peter.WintlevJensen@ec.europa.eu">Peter.WintlevJensen@ec.europa.eu</a>	58 M€
5.2 Virtual Physiological Human	<a href="mailto:AmaliaIrina.Vlad@ec.europa.eu">AmaliaIrina.Vlad@ec.europa.eu</a>	31,9 M€
5.3 ICT for smart and personalised inclusion	<a href="mailto:Marco.Marsella@ec.europa.eu">Marco.Marsella@ec.europa.eu</a>	19 M€
5.4 ICT for governance and policy modelling	<a href="mailto:Athanassios.Chrissafis@ec.europa.eu">Athanassios.Chrissafis@ec.europa.eu</a>	19 M€
5.5 Collective awareness Platforms for Sustainability and Social Innovation	<a href="mailto:Fabrizio.Sestini@ec.europa.eu">Fabrizio.Sestini@ec.europa.eu</a>	15 M€



# ICT for a Low-Carbon Economy



- ICT to achieve substantial efficiency gains in key resources
- Smart grids, energy efficient buildings and public spaces, electric vehicles and energy efficient mobility.
- PPP on energy efficient buildings focusing on system integration and validation of ICT infrastructures for energy-efficient neighborhoods

## ICT for a Low-Carbon Economy

6.1 Smart energy grids		18 M€
6.2 Data Centres in an energy-efficient and environmentally friendly Internet		20 M€
6.3 ICT for water resources management		14 M€
6.4: Optimising Energy Systems in Smart Cities		40 M€
6.5 Co-operative mobility	<a href="mailto:Helen.Kopman@ec.europa.eu">Helen.Kopman@ec.europa.eu</a>	26 M€
6.6 Integrated personal mobility for smart cities	<a href="mailto:Helen.Kopman@ec.europa.eu">Helen.Kopman@ec.europa.eu</a>	15 M€
6.7: PPP GC: Electro-mobility	<a href="mailto:Cosmin.Codrea@ec.europa.eu">Cosmin.Codrea@ec.europa.eu</a>	40 M€

## ICT for the Enterprise and Manufacturing



- The ICT contribution to FoF aims at improving the efficiency, adaptability and sustainability of manufacturing and advanced robotics systems
- The focus of the work is on take-up initiatives
- The aim is to bring together ICT suppliers and users with a special emphasis on SMEs

7.1 PPP FoF: Application experiments for robotics and simulation	<a href="mailto:Rolf.riemenschneider@ec.europa.eu">Rolf.riemenschneider@ec.europa.eu</a>	35 M€
7.2 PPP FoF: Equipment assessment for sensor and laser based applications	<a href="mailto:Erastos.Filos@ec.europa.eu">Erastos.Filos@ec.europa.eu</a>	35 M€

## ICT for Creativity and Learning



- Mobilize small and medium enterprises that produce tools for the creative industry
- Integrated learning and knowledge solution building blocks that can support formal learning contexts led by the public sector

8.1 Technologies and scientific foundations in the field of creativity	<a href="mailto:Alina.Senn@ec.europa.eu">Alina.Senn@ec.europa.eu</a>	43 M€
8.2 Technology enhanced learning		25 M€

# FET

## *Future and Emerging Technologies*



- Continue the open and proactive schemes
- FET Proactive proposes to address activities including:
  - Evolving Living Technologies
  - Atomic and Molecular Scale Devices and Systems
  - Objectives 9.6, 9.7, 9.8
- The FET Flagships preparatory phase. In WP2013 up to two flagship will be launched and the ramp-up phase will be supported

# FET

## *Future and Emerging Technologies*

9.1 Challenging current Thinking		34 M €
9.2 High-Tech Research Intensive SMEs in FET research		6 M€
9.3 FET Young Explorers		8 M€
9.4 International cooperation on FET research		2 M€
9.5 FET-Open Xtrack		15 M€
9.6 FET Proactive: Evolving Living Technologies	<a href="mailto:Dagmar.Floeck@ec.europa.eu">Dagmar.Floeck@ec.europa.eu</a>	16 M€
9.7 FET Proactive: Atomic and Molecular Scale Devices and Systems	<a href="mailto:Roumen.Borissov@ec.europa.eu">Roumen.Borissov@ec.europa.eu</a>	16 M€
9.8 FET Proactive: Coordinating communities	<a href="mailto:Roumen.Borissov@ec.europa.eu">Roumen.Borissov@ec.europa.eu</a>	3 M€
9.9 FET Flagships	<a href="mailto:Wide.Hogenhout@ec.europa.eu">Wide.Hogenhout@ec.europa.eu</a>	110 M€

# International collaboration

- Includes a number of “targeted openings” for research cooperation with Japan and Brazil in areas of mutual benefit
- Supports horizontal actions on international partnership building and support to dialogues

10.1 EU-Japan Research and Development Cooperation		9 M€
10.2 EU-Brazil Research and Development Cooperation		5 M€
10.3 International Partnership building and support to dialogues	<a href="mailto:Ardiel.Cabrera@ec.europa.eu">Ardiel.Cabrera@ec.europa.eu</a>	8 M€

# Horizontal activities

11.1 Ensuring more efficient higher quality public services through Pre-Commercial Procurement of ICT solutions across sectors of public interest	<a href="mailto:Lieve.Bos@ec.europa.eu">Lieve.Bos@ec.europa.eu</a>	4 M€
11.2 More efficient and affordable solutions for digital preservation developed and validated against public sector needs through joint Pre-Commercial procurement (PCP)		5 M€
11.3 High quality cloud computing environment for public sector needs, validated through a joint precommercial procurement (PCP)	<a href="mailto:Dirk.VanRooy@ec.europa.eu">Dirk.VanRooy@ec.europa.eu</a>	10 M€
11.4 Supplements to Strengthen Cooperation in ICT R&D in an Enlarged European Union	<a href="mailto:Tom.McKinlay@ec.europa.eu">Tom.McKinlay@ec.europa.eu</a>	9 M€
11.5 Cross border services, investment readiness and legal advice for ICT SMEs, start-ups and entrepreneurs	<a href="mailto:Pierre.Marro@ec.europa.eu">Pierre.Marro@ec.europa.eu</a>	5,7 M€



# Exascale Computing

- Continuation of the exascale initiative started in the WP2011-12
- 12.1 Exascale computing platforms, software and applications; 22 M€
- Leveraging the existing European strengths in computing to develop autonomous technology for building the next generation of extreme performance computing

# WP2013 Time table



**FP7-ICT-2013-10 (Call 10)**

**10.7.2012 - 15.1.2013**

**FP7-ICT-2013-11 (Call 11)**

**18.9.2012 - 16.4.2013**

Additional Calls

FP7-2013-ICT-GC Green Cars

10.7.2012 - 4.12.2012

FP7-2013-NMP-ICT-FoF

10.7.2012 - 4.12.2012

FP7-ICT-2013-SME-DCA

10.7.2012- 15.1.2013

FP7-SMARTCITIES-2013

10.7.2012 - 4.12.2012

FP7-2012-ICT-FI Future Internet PPP

16.5.2013 - 10.12.2013

FP7-ICT-2013-FET-F FET Flagships

10.7.2012 - 23.10.2012

FP7-ICT-2013-C FET Open

..-11.9.2012

FP7-ICT-2013-X FET Open Xtrack

12.9.2012 - 29.1.2013

EU-Brazil Call

12.9.2012 - 12.12.2012

EU-Japan Call

2.10.2012 - 29.11.2012

- Note: All calls will close at 5 p.m (Brussels time).

# ICT Proposers' Day 2012

26-27 September, Warsaw Poland



[http://ec.europa.eu/information\\_society/events/ictproposersday/2012/](http://ec.europa.eu/information_society/events/ictproposersday/2012/)

## Networking for European ICT Research & Development

- first-hand information from European Commission officials on the new ICT Work Programme 2013, offering around 1.5 billion euro of EU funding
- answers to questions related to the upcoming calls for proposals
- an opportunity to present and discuss your project idea during one of the networking sessions
- a platform for exchanging ideas and finding right partners to form project consortia
- guidance on how to present a successful proposal

# Horizon 2020 – objectives & structure

Europe 2020 priorities

International cooperation

European Research Area

Shared objectives and principles

## Tackling Societal Challenges

- ICT – Health, demographic change and wellbeing
  - ICT – Food security and the bio-based economy
  - ICT – Secure, clean and efficient energy
  - ICT – Smart, green and integrated transport
  - ICT – Climate action, resource efficiency, including raw materials
  - ICT – Inclusive, innovative and secure societies
- EIT and JRC will contribute to addressing these challenges*

## Creating Industrial Leadership and Competitive Frameworks

- Leadership in enabling and industrial technologies
- **Information and Communication Technologies (ICT)**
  - Nanotechnology, Materials, Manufacturing and Processing
  - Biotechnology
  - Space
- Access to risk finance
- Innovation in SMEs

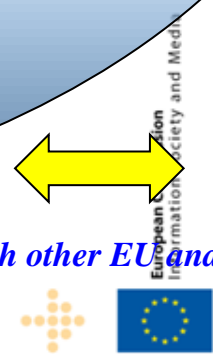
## Excellence in the Science Base

- ICT – Frontier research (ERC)
- ICT – Future and Emerging Technologies (FET)
- ICT – Skills and career development (Marie Curie)
- ICT – Research infrastructures

Simplified access

Common rules, toolkit of funding schemes

Coherent with other EU and MS actions



# ICT Call 7 - Challenge 1 Objective 1.3

**IP**  
12 submitted (14,3%)  
2 retained

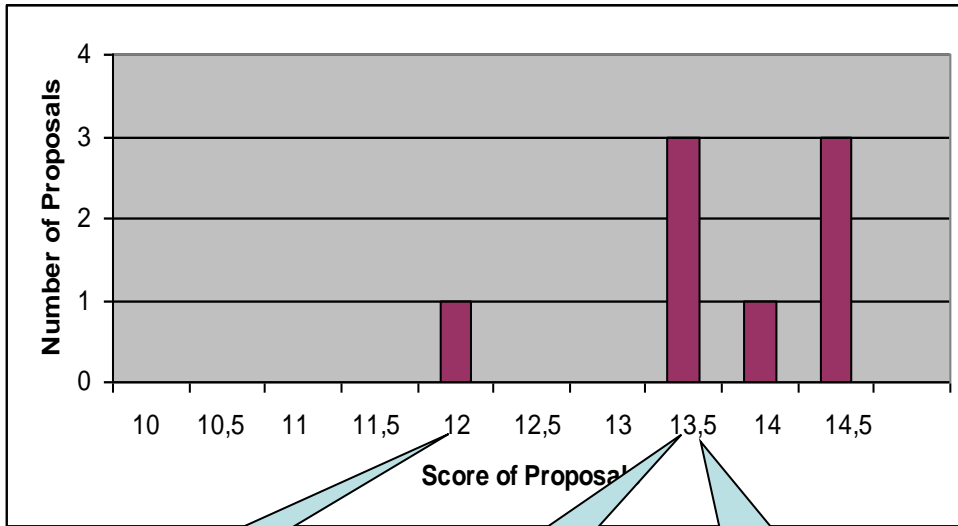
## Submission & Selection outcome

**CSA**  
5 submitted (5,9%)  
2 retained

**84**  
submitted proposals  
(83 eligible)

**STREP**  
67 submitted (79,8%)  
(66 eligible)  
4 retained

## Overall quality of retained proposals



Funding threshold CSA

Funding threshold IP

Funding threshold STREP

## Proposals size

“average” STREP: €2.5 m grant, 7.5 partners  
 “average” IP: €9.2 m grant, 18 partners  
 “average” CSA: €1.0 m grant, 8.5 partners

## Success rate

IP	STREPS	CSA
16.6%	5.9%	40%

## ICT Call 7 – Challenge 1, Obj. 1.3

- Total grant requested (84 submitted proposals) : 282 m€
- Total grant recommended (8 retained proposals): 31 m€

## Lisätietoja

Komiteajäsen

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