

# ICT - Information and Communication Technologies

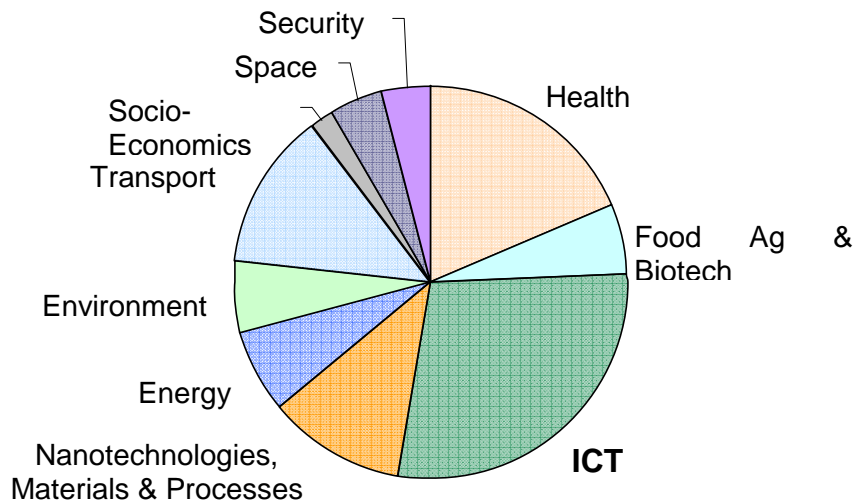
## A brief overview of Framework 7 ICT 2010-2012 Including PPPs

UK ICT NCP 11 October 2010

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**Collaborative Research** enables organisations to develop the knowledge underpinning future products and services. It brings access to skills from a wider compass than may be directly available to the individual organisation, at the same time as enabling a wider outlet for skills and knowledge of their own. It delivers enhanced business networks, enables a broader world view and access to a greater marketplace.

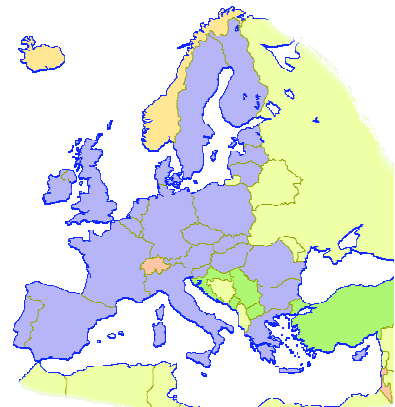
The European Commission seeks to encourage collaborative research for the benefit of the population and the Competitiveness of European Industry. It does this by launching objective driven calls for proposals addressing particular technological challenges. The Collaboration Programme of the **Seventh European Research Framework** will spend 32 Billion Euros supporting Collaborative research over ten Thematic domains in the seven year period 2007-13



**Projects and Funding.** Proposals in response to a Commission call involving at least three independent collaborating participants from different member or associated states have to be submitted electronically by a published date and time. These proposals are marked against published criteria by Independent evaluators in the following six weeks or so. Those achieving highest scores subsequently enter negotiation of a grant agreement with the Commission.

Successful proposals result from understanding, excellence and a high degree of commitment in their writing, as calls are commonly oversubscribed.

Research projects - in a variety of forms and size:.. sharply focussed '**STREPS**' or the more general **Integrating Projects** consume more than 90% of the available funding. **Networks of Excellence** deliver organisation and focus in specific fields, whilst **Coordination and Support Actions** underpin the organisation and success of the programme

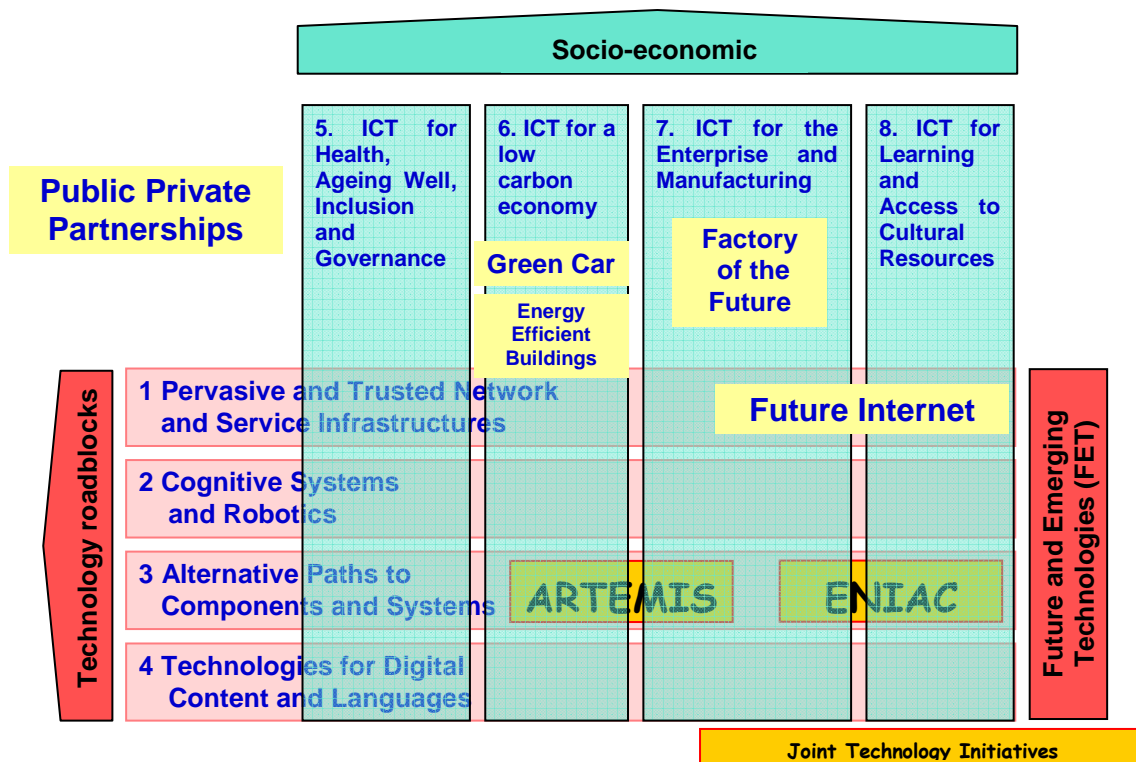


Successful proposers form consortia whose rules of action are defined by their consortium agreement. An initial payment is made by The Commission within weeks of the start of the project. Broadly, eligible project costs incurred by the Partners are supported at rates dependent upon their size and type. 50% for large organisations or 75% for SMEs, Research Centres and Universities.

- **Innovative Projects**
- **50% support – 75% for an SME, etc**
- **The Commission give their fraction of what is spent**
- **Involving at least 3 independent partners from different Countries**
- **In Topics identified by The Commission’s Workprogramme**
- **In response to specific Calls for Proposals**
- **By means of a Grant Agreement with The European Commission**

### CT WORKPROGRAMME 2011-2012

Currently under development, will address eight challenges, each of which divides into a number of objectives. The first four challenges are those providing underlying technologies, and the second four which address socio economic goals.



In addition to the eight Challenges the Future and Emerging Technologies action is opened for novel leading edge proposals, together with ‘horizontal’ actions on International Cooperation and the like. Four special areas are called out as Public Private Partnerships (PPPs). In all cases the research projects will use one of the Framework 7 ‘instruments’:

Research projects:

- STREPs, SICAs (smaller tightly focussed)
- Integrated Projects (larger and more flexible)

Organisational:: Networks of Excellence

Supportive: Coordination and Support Actions, Specific Support Actions

In addition there are two Joint Technology Initiatives, which combine Framework funding with that of certain Member states – For Further detail see <http://tinyurl.com/2vqhsnb>

## **The Eight Challenges**

### **Challenge 1: pervasive and trusted network and service infrastructures**

Covers tools and platforms for novel Internet application development and deployment through the launch of a Public-Private Partnership on Future Internet. At the same time, key technological developments in networking, digital media and service infrastructures of the future are addressed.

### **Challenge 2: cognitive systems and robotics**

Aims to enhance the performance and manageability of artificial cognitive systems and to expand and improve the functionalities of robotic systems operating under circumstances that were not fully planned for explicitly at design time. It supports both research on endowing artificial systems with cognitive capabilities as well as research more specifically related to the design and engineering of robotic systems.

### **Challenge 3: alternative paths to components and systems**

Focuses on further miniaturisation and increased performance in electronic and photonic components, in micro/nanosystems integrating functionalities like sensing, actuating, communicating, in alternative routes to new components and systems such as organic electronics and in multicore computing systems, embedded systems, monitoring and control, and cooperating complex systems.

### **Challenge 4: technologies for digital content and languages**

Aims to enable individuals and small organisations to create quality content and innovative services and at allowing people to access and use online content and services across language barriers; it also aims at ensuring reliability of retrieval and use of digital resources across applications and platforms and at scaling up data analysis to keep pace with extremely large data volumes.

### **Challenge 5: ICT for health, ageing well, inclusion and governance**

Has a focus on ICT for disease prediction, early diagnosis, prevention, minimally invasive treatment, and overall disease management and support to healthy lifestyles. Another focus is on ICT solutions for prolonging independent living and for extending active working life, as well as ICT solutions enabling accessibility of emerging mainstream ICT solutions, and assistive technologies for people with disabilities. A final focus is on ICT tools for governance and policy modelling.

### **Challenge 6: ICT for a lower carbon economy**

Concentrates on the development of ICT to achieve substantial efficiency gains in the distribution and use of key resources such as energy and water, as well as the application of ICT to decarbonise transport and make it safer. This incorporates the ICT contributions to the Public-Private Partnerships on Energy Efficient Buildings and on Green Cars: ICT for the fully electric vehicle.

### **Challenge 7: ICT for manufacturing & factories of the future**

Incorporates the ICT contributions to the Public-Private Partnership on Factories of the Future. It aims to improve the technological base of manufacturing across a broad range of sectors by improving, not only their efficiency and adaptability, but also the sustainability of manufacturing systems as well as their better integration within business processes.

### **Challenge 8: ICT for learning and access to cultural resources**

Sets out to develop technologies and methodologies that make people learn more effectively and support the acquisition of new skills. It also aims to ensure the effective use and exploitation of the cultural resources by developing technologies to make them available, usable and re-usable regardless of their form, location, time sphere etc.

Additionally the Commission will undertake

A strengthened support to Future and Emerging Technologies (FET)

A reinforced and focused support to International cooperation

## Implementation

Will involve a number of 16 calls for proposals commencing in July 2010. The calls fall into nine distinct open/close date sets

Call Title	Call identifier	Date of publication	Proposal Deadline	Key in Obj Table	Budget M€
EU Russia Coordinated Call	FP7-ICT-2011-EU-Russia	20-Jul-10	14-Sep-10	RU11	4
"FET Flagship Initiatives"	FP7-ICT-FET-F	20-Jul-10	02-Dec-10	FE11	10
"Factories of the Future" - 2011	FP7-2011-NMP-ICT-FoF	20-Jul-10	02-Dec-10	FF11	80
"ICT for Green Cars"- 2011	FP7-2011-ICT-GC	20-Jul-10	02-Dec-10	GC11	30
"Energy-efficient Buildings" - 2011	FP7-2011-NMP-ENV-ENERGY-ICT-EeB	20-Jul-10	02-Dec-10	EE11	20
"Future Internet"- 2011	FP7-2011-ICT-FI	20-Jul-10	02-Dec-10	FI11	90
FET Open	FP7-ICT-2011-C	20-Jul-10	various	FET	93
EU Brazil Coordinated Call	FP7-ICT-2011-EU-Brazil	28-Sep-10	18-Jan-11	BR11	5
<b>ICT Call 7</b>	<b>FP7-ICT-2011-7</b>	<b>28-Sep-10</b>	<b>18-Jan-11</b>	<b>7</b>	<b>778.5</b>
SME Initiative on Digital Content and Languages	FP7-ICT-2011-SME-DCL	01-Feb-11	28-Apr-11	DC11	35
<b>ICT call 8</b>	<b>FP7-ICT-2011-8</b>	<b>26-Jul-11</b>	<b>17-Jan-12</b>	<b>8</b>	<b>785.5</b>
"Factories of the Future" - 2012	FP7-2012-NMP-ICT-FoF	30-Jul-11	02-Dec-11	FF12	60
"ICT for Green Cars"- 2012	FP7-2012-ICT-GC	30-Jul-11	02-Dec-11	GC12	30
"Energy-efficient Buildings" - 2012	FP7-2012-NMP-ENV-ENERGY-ICT-EeB	30-Jul-11	02-Dec-11	EE12	30
<b>ICT call 9</b>	<b>FP7-ICT-2011-9</b>	<b>18-Jan-12</b>	<b>17-Apr-12</b>	<b>9</b>	<b>291</b>
"Future Internet"- 2012	FP7-2012-ICT-FI	18-May-12	29-Oct-12	FI12	80

## Objectives in ICT WP 2011-12

Obj No	Objective	Call	Budget
<b>Pervasive and Trusted Network and Service Infrastructures</b>			
1.1	Future Networks	8	160
1.2	Cloud Computing, Internet of Services and Advanced Software Engineering	8	70
1.3	Internet-connected objects	7	30
1.4	Trustworthy ICT	8	80
1.5	Networked Media and Search Systems	7	70
1.6	Future Internet Research and Experimentation (FIRE)	7	20
1.6	Future Internet Research and Experimentation (FIRE)	8	25

<b>Future Internet Public Private Partnership</b>			
<b>FLICT 1.7</b>	Technology foundation: Future Internet Core Platform	FI11	41
<b>FLICT 1.8</b>	Use Case scenarios and early trials	FI11	40
<b>FLICT 1.8</b>	Use Case scenarios and early trials	FI12	67.5
<b>FLICT 1-9</b>	Capacity Building and Infrastructure Support	FI11	3
<b>FLICT 1-9</b>	Capacity Building and Infrastructure Support	FI12	12.5
<b>FLICT 1.10</b>	Programme Facilitation and Support	FI11	6
<b>Cognitive Systems and Robotics</b>			
<b>2.1</b>	Cognitive Systems and Robotics	7	73
<b>2.1</b>	Cognitive Systems and Robotics	9	82
<b>Alternative Paths to Components and Systems</b>			
<b>3.1</b>	Very advanced nanoelectronic components: design, engineering, technology and manufacturability	8	60
<b>3.2</b>	Smart components and smart systems integration	7	41
<b>3.2</b>	Smart components and smart systems integration	8	39
<b>3.3</b>	New paradigms for embedded systems, monitoring and control towards complex systems engineering	7	50
<b>3.4</b>	Computing Systems	7	45
<b>3.5</b>	Core and disruptive photonic technologies	7	25
<b>3.5</b>	Core and disruptive photonic technologies	8	92
<b>3.6</b>	Flexible, Organic and Large Area Electronics and Photonics	7	50
<b>Technologies for Digital Content and Languages</b>			
<b>4.1</b>	SME initiative on Digital Content and Languages (2stp)	SME-DCL	35
<b>4.2</b>	Language Technologies	7	50
<b>4.3</b>	Digital Preservation	9	30
<b>4.4</b>	Intelligent Information Management	8	50
<b>ICT for Health, Ageing Well, Inclusion and Governance</b>			
<b>5.1</b>	Personal Health Systems (PHS)	7	60
<b>5.2</b>	Virtual Physiological Human	7	1.5
<b>5.2</b>	Virtual Physiological Human	9	66.5
<b>5.3</b>	Patient Guidance Services (PGS), safety and healthcare record information reuse	7	35
<b>5.4</b>	ICT for Ageing and Wellbeing	7	37
<b>5.5</b>	ICT for smart and personalised inclusion	7	35
<b>5.6</b>	ICT solutions for governance and policy modelling	7	25
<b>ICT for a low carbon economy</b>			
<b>6.1</b>	Smart Energy Grid	8	30
<b>6.2</b>	ICT systems for energy efficiency	7	35
<b>6.3</b>	ICT for efficient water resources management	8	15
<b>6.4</b>	ICT for energy-efficient buildings and spaces of public use	EE11	20
<b>6.5</b>	ICT for energy-positive neighbourhoods	EE12	30
<b>6.6</b>	Low carbon multi-modal mobility and freight transport	7	50
<b>6.7</b>	Cooperative Systems for energy efficient and sustainable mobility	8	40
<b>6.8</b>	ICT for fully electric vehicle	GC11	30
<b>6.8</b>	ICT for fully electric vehicle	GC12	30

<b>ICT for the Enterprise and Manufacturing</b>			
7.1	Smart Factories: Energy-aware, agile manufacturing and customisation	FF12	40
7.2	Manufacturing solutions for new ICT products	FF12	20
7.3	Virtual Factories and enterprises	FF11	45
7.4	Digital factories: Manufacturing design and product lifecycle management	FF11	35
<b>ICT for Learning and Access to Cultural Resources</b>			
8.1	Technology-enhanced learning	8	60
8.2	ICT for access to cultural resources	9	40
<b>Future and Emerging Technologies</b>			
<b>FET Open</b>		FET	
9.1	Challenging current Thinking	FET	75
9.2	High-Tech Research Intensive SMEs in FET research	FET	9
9.3	FET Young Explorers	FET	6
9.4	International cooperation on FET research	FET	3
9.5	FET Flagship Initiative Preparatory Actions	FE11	10
<b>FET Proactive</b>			
9.6	Unconventional Computation (UCOMP)	8	15
9.7	Dynamics of Multi-Level Complex Systems (DyM-CS)	8	23
9.8	Minimising Energy Consumption of Computing to the Limit (MINECC)	8	15
9.9	Quantum ICT (QICT) including ERA-NET-Plus	9	22
9.10.	Fundamentals of Collective Adaptive Systems (FOCAS)	9	23
9.11	Neuro-Bio-Inspired Systems (NBIS)	9	23
9.12	Coordinating Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes	7,8,9	3
9.12	Coordinating Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes	8	3
9.12	Coordinating Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes	9	2.5
9.13	Exa-scale computing, software and simulation	7	25
9.14	Joint Call ICT-SSH on 'Science of Global Systems'	8	3.5
<b>International Cooperation</b>			
10.1	EU-Brazil Research and Development cooperation	BR11	5
10.2	EU-Russia Research and Development cooperation	RU11	4
10.3	International partnership building and support to dialogues	7	4
10.3	International partnership building and support to dialogues	9	2
<b>Horizontal Actions</b>			
11.1	Pre-Commercial Procurement Coordination Actions	8	5
11.2	Trans National Cooperation NCPs	7	4
11.3	Supplements to strengthen Cooperation in an enlarged European Union	7	10

## Support

National Contact point see website at <https://ktn.innovateuk.org/web/fp7-ict>.

A 'drillable' version of the above list of objectives may be found at <http://tinyurl.com/39s34el>

A list of some ICT Call 7 supporting events and documents is at <http://tinyurl.com/36egw9p>