

FP7 ICT Work Programme 2011-12

Focus on remaining calls up to end 2012

European Commission

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FP7 ICT Programme Objectives



- Reinforce basic ICT technologies and infrastructures
 - seize new opportunities in emerging fields, build on existing strengths, help share risks and build partnerships
- Reinforce ICT contributions to major socio-economic challenges
 - health and ageing, lower-carbon economy, sustainable manufacturing and services, learning and cultural resources
- Support to international cooperation
- Strengthen cooperation in an enlarged Europe
- Support to pre-commercial procurement



ICT in FP7 - Where do we stand?

- Behind us
 - ICT CfPs under WP 2007-08, WP 2009-10 and WP 2011-12
 - >4200 M€ of EU funding committed
 - >1200 projects launched or to be launched
 - >11700 participations
 - >3900 distinct organisations participating
 - Calls under two Joint Technology Initiatives (Artemis and Eniac) and the Ambient Assisted Living Joint Programme (AAL) in 2008, 2009 and 2010
- Ahead of us
 - ICT WP 2011-12 Calls 8 and 9
 - ~1350 M€ funding
 - ICT WP 2013
 - >1500 M€ funding
 - JTIs + AAL WPs 2011, 2012, 2013



FP7/ICT Programme Structure

Call 8
Deadline: 17/1/12

Call 9
Deadline: 17/4/12

2 years budgets

ICT for socio-economic challenges

260 M€, 11%	280 M€, 12%	140 M€, 6%	100 M€, 4%
5. ICT for Health, Ageing, Inclusion & Gov.	6. ICT for Lower-Carbon Economy	7. ICT for Manufac. & Enterprise	8. ICT for Learning & Cultural Resources

Basic ICT technologies & infrastructures

1. Network and Service Infrastructures	625 M€, 26%
2. Cognitive Systems and Robotics	155 M€, 6%
3. Component and Systems	402 M€, 17%
4. Digital Content and Languages	165 M€, 7%

Future & Emerging Technologies (FET)

261 M€, 11%

Future Internet PPP
Green Car PPP
Energy Efficient Buildings PPP
Factory of the Future PPP
PPPs Deadline: 1/12/11
FI PPP Deadline: 24/10/2012

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



Why Public Private Partnerships (PPP)?

- Strong focus on industry-led roadmaps
- Cut across themes, technologies and research disciplines
- Cut across policy silos ("supply and technology push" + "demand and market pull")

- INFISO/ICT PPP
 - Future Internet PPP
- Jointly implemented with other Themes (DG RTD, ENV, ENERGY)
 - ICT in the Factories of the Future PPP
 - ICT in the Green Cars PPP
 - ICT in the Energy Efficient Buildings PPP



Network and service infrastructures

Deadline: 17/1/12

- 160 M€** 1.1: Future Networks supporting the convergence and interoperability of heterogeneous mobile, wired and wireless broadband network technologies
 - novel Internet architectures; network management and operation frameworks, wireless and broadband systems and ultra-high capacity all-optical networks
- 70 M€** 1.2: Cloud computing, Internet of Services & advanced software engineering
 - technologies specific to the networked, distributed dimension of software and the access to services and data
- 80 M€** 1.4: Trustworthy ICT
 - security in networked service and computing environments; trust, privacy and claims management infrastructures; data policy, governance and socio-economic aspects of trustworthy ICT
- 25 M€** 1.6: Future Internet Research and Experimentation (FIRE)
 - FIRE Federation
 - FIRE Experimentation
 - Coordination and support



Future Internet PPP

Deadline: 24/10/12

67.5 M€

1.8: Use case scenarios and early trials

- Working experimentation sites building upon common components and generic enablers
- Selected test applications
- Validation of the openness and versatility of the Core Platform and its Software Development Kit
- Detailed plan for the large scale expansion of platform usage

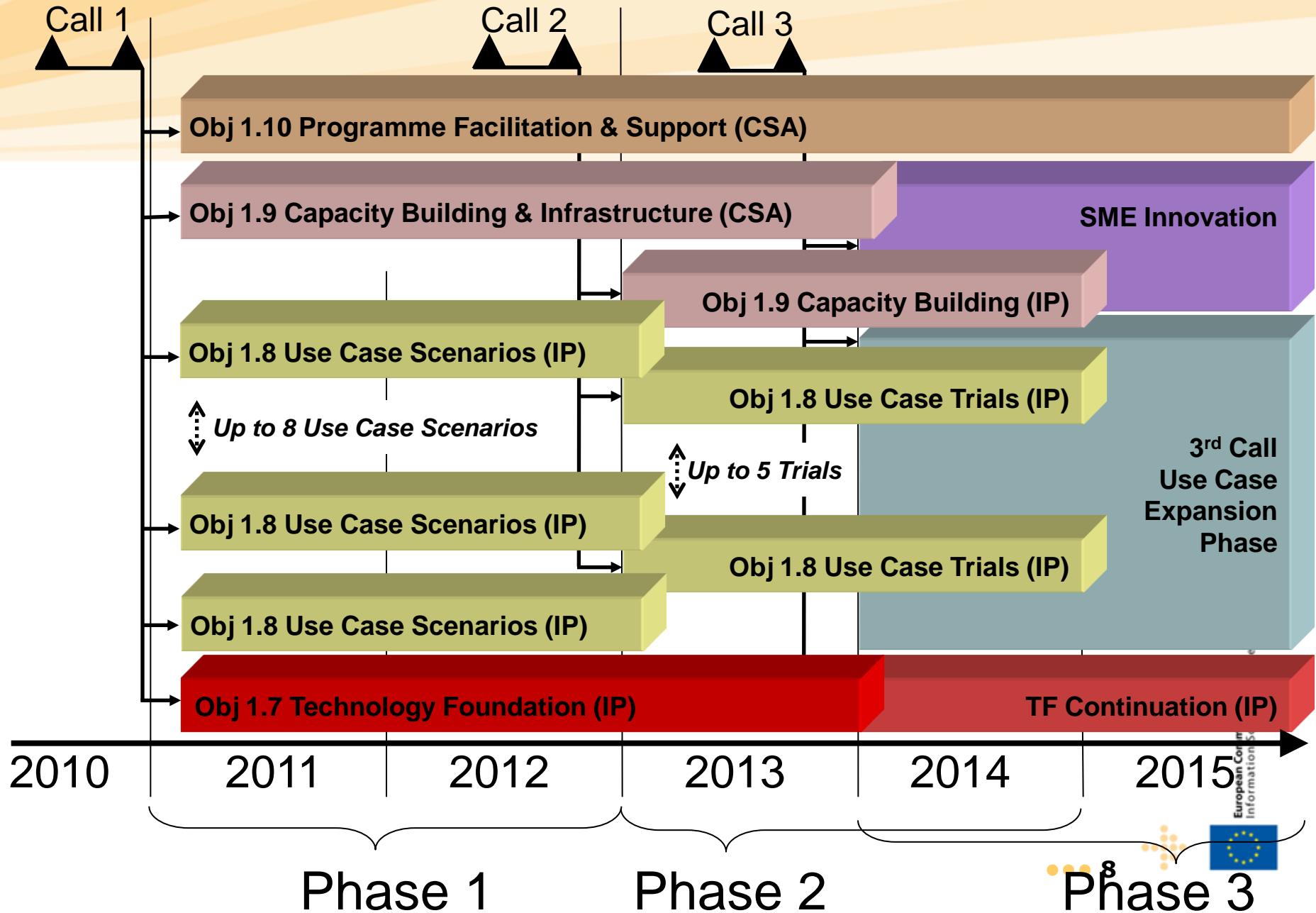
12.5 M€

1.9: Capacity Building and Infrastructure support

- Integration of identified infrastructures satisfying the interoperability requirements
- Adaptation, upgrade and validation of the infrastructures to support usage requirements from use cases
- Pan-European federation of test and experimental infrastructures satisfying interoperability requirements



Programme Architecture



2.1 Cognitive systems and robotics

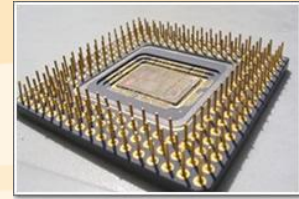
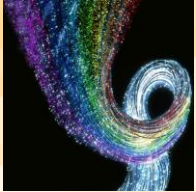
Deadline: 17/4/12

82 M€

- Cognition and control in complex systems
 - cognitive capabilities to enhance performance and manageability of artificial systems
- Gearing up cross-fertilisation between academic and industrial robotics
 - strengthen synergies
 - joint industrially-relevant scenarios
 - shared research infrastructures
 - joint small- to medium scale experimentation
 - comparative performance evaluation
- Smarter robots through targeted competitions
 - reference scenarios
 - soliciting private sponsorships
 - organising and managing events



Nanoelectronics, Smart systems, Photonics



Deadline: 17/1/12

60 M€

3.1: Very advanced nanoelectronic components: design, engineering, technology and manufacturability

- alternative solutions to the traditional miniaturisation path, for information & communication systems & other applications

39 M€

3.2: Smart components and smart systems integration

- integration of new functionalities (sense, actuate, process, comm, energy scavenging ...) for next generation of components and smart systems (SoC, SiP ...)
- convergence of microelectronics, nano-materials, biochemistry, measurement technology and ICT – complementary to ENIAC JTI

92 M€

3.5: Photonics

- Core photonics technologies
 - Optical data communications / Biophotonics / Imaging and sensing for safety and security / Lighting and displays / Photonics integration platforms
- ERANET-Plus action
- Innovative solutions through Pre-Commercial Procurement (PCP)



Technologies for digital content and languages

Deadline: 28/4/11 (short)
28/9/11 (full)

35 M€

4.1: SME initiative on Digital Content and Languages

- Putting the ability to create quality content and innovative services within the reach of individuals and small organisations by lowering skill and cost barriers

30 M€

4.3: Digital preservation

- Ensuring reliability of retrieval and use of digital resources across applications and platforms over time, and design digital content natively engineered for obsolescence avoidance

Deadline: 17/4/12

50 M€

4.4: Intelligent information management

- Scaling up data analysis to keep pace with the rate of growth of data streams and collections and enable novel forms of real-time intelligence only possible on extremely large data volumes

Deadline: 17/1/12



ICT for health

5.2 Virtual Physiological Human

Deadline: 17/4/12

66.5 M€

- Patient-specific predictive computer-based models and simulation
 - integrating medical, biological and environmental data
 - explore the interaction and integration of environmental factors with medical & biological factors
 - demonstrate for a specific clinical need (all major diseases)
- ICT tools, services and infrastructure for multi-scale models and larger repositories
 - robustness and reproductibility
 - standards for models and data, tools and repositories
 - VPH Infostructure including a sustainable VPH model and data repositories
 - open environments and open-source software expected
- Demonstrators and proof of concept of digital representations of health status
 - integrating different patient-specific data and models of organs
 - coherent representation of a "Digital Patient"



ICT for a low-carbon economy



Deadline: 17/1/12

30 M€

6.1: Smart energy Grids

- Intelligent systems and integrated communication infrastructure to assist in management of electricity grids

15 M€

6.3: ICT for efficient water resources management

- ICT-enabled solutions for integrated water resources management (innovative demand management systems, decision support systems, data management technologies)

30 M€

6.5: PPP EEB: ICT for energy-positive neighbourhoods

- management and control, decision-support systems for energy supply and demand in neighbourhoods and extended urban/rural communities

->Part of Public-Private Partnership on Energy-Efficient Buildings

Deadline: 17/1/12

Deadline: 1/12/11



ICT for a low-carbon economy



Deadline: 17/1/12

40 M€ 6.7: Cooperative systems for energy efficient and sustainable mobility

- Cooperative Systems for low-carbon multi-modal mobility
 - focus on road transport
- European Wide Service Platform (EWSP) for cooperative system enabled services
- Coordination and support actions

30 M€ 6.8: PPP GC: ICT for fully electric vehicles (FEV)

- Electric Drive and Electronic Components
- Integration of the FEV in the cooperative transport infrastructure
- Functional Safety and Durability of the FEV
- Coordination and Support Action "FEV made in Europe"

Deadline: 1/12/11

->Part of Public-Private Partnership on Green Cars



ICT for the enterprise and manufacturing

40 M€

7.1: 'Smart factories'

- Demonstration and benchmarking of novel process automation and control
- Large-scale validation of advanced industrial robotics systems
- Applications based on factory-wide networks of intelligent sensors and new metrology tools and methods
- Lasers and laser systems for manufacturing and materials processing

Deadline: 1/12/11

20 M€

7.2: 'Manufacturing solutions for new ICT products'

- Feasibility demonstrators for industrial, low cost, high volume and high throughput manufacturing
- Production of organic and large area electronics and photonics products
- Industry-driven projects with quality control, testing and validation

Deadline: 1/12/11

->7.1 & 7.2 are part of Public-Private Partnership on Future Manufacturing



ICT for learning and cultural resources

60 M€

8.1: Technology-enhanced learning

- Advances in learning through ICT
- Systems endowed with the capabilities of human tutors
- Educational technologies for science, technology and maths
- Solutions for deployment of learning opportunities at the workplace
- Computational tools fostering creativity in learning processes

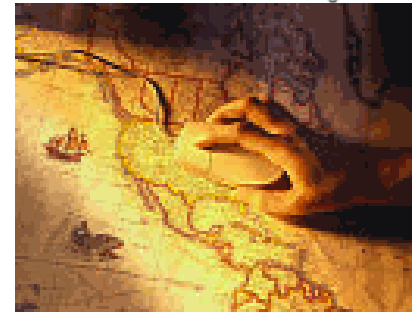
Deadline: 17/1/12

40 M€

8.2: ICT for access to cultural resources

- Enhancing the meaning and experiences from digital cultural and scientific resources
- Creating personalised and engaging digital cultural experiences
- Platforms for building services to support use of cultural resources for research and education
- Technologies for the digitisation of cultural resources

Deadline: 17/4/12



FET Open

Future and Emerging Technologies

Deadline: 31/12/12

- 75 M€** 9.1: Challenging current Thinking
- 9 M€** 9.2: High-Tech Research Intensive SMEs in FET research
- 6 M€** 9.3: FET Young Explorers
- 3 M€** 9.4: International cooperation on FET research

- Cut-off dates:

Batch	Short STREPs	Full STREPs and CSAs
11	30/11 2010	17/5 2011
12	3/5 2011	25/10 2011
13	25/10 2011	10/4 2012
14	10/4 2012	25/9 2012
15	11/9 2012	12/3 2013



FET Proactive and special initiative



- 15 M€ – 9.6: Unconventional Computation
- 23 M€ – 9.7: Dynamics of Multi-Level Complex Systems
- 15 M€ – 9.8: Minimising Energy Consumption of Computing to the Limit
- 3 M€ – 9.12: Coordination Call 8

Deadline: 17/1/12

- 22 M€ – 9.9: Quantum ICT
- 23 M€ – 9.10: Fundamentals of Collective Adaptive Systems
- 23 M€ – 9.11: Neuro-Bio Inspired Systems
- 2.5 M€ – 9.12: Coordination Call 9

Deadline: 17/4/12

- 3.5 M€ – 9.14 'Science of Global Systems'
 - Tools to represent uncertainty and to construct chains of causality for use in socio-political decision processes

Deadline: 17/1/12



International collaboration

Horizontal actions

Deadline: 17/4/12

2 M€

10.3: International partnership building & support to dialogues

- Enable Partnership building in low and middle income countries
- Low-cost technologies, technologies promoting or enabling use of ICT, intuitive user interfaces and local content provisioning
- Targeted countries: Low and middle income countries including Africa



11.1 Pre-Commercial Procurement Actions

Deadline: 17/1/12

5 M€

Networking and coordination

- Strengthen the networking and cooperation of public bodies in Europe to establish and coordinate mid-to-long term procurement strategies
- Development of new ICT solutions that can help better address public sector needs through PCP

Implementation of joint PCP calls for tenders

- Encourage stronger coordination of non-Community R&D procurement programmes
- Support public bodies in Europe to establish joint PCP calls for tenders on topics of common European interest

Minimum number of participants

- Three independent legal entities which are public bodies preparing for, or already experienced in the implementation of PCP
- Each of these must be established in a different Member or Associated States



Next Calls for Proposals - Deadlines

- SME Initiative ...short: 28 Apr 2011; full: 28 Sep 2011
- **Energy-Efficient Buildings, Green Cars, Factories of the Future PPPs Call 2011..... 1 Dec 2011**
- **ICT Call 8.....17 Jan 2012**
- **ICT Call 9.....17 Apr 2012**
- **Future Internet PPP Call 224 Oct 2012**
- **FET OpenContinuously open**

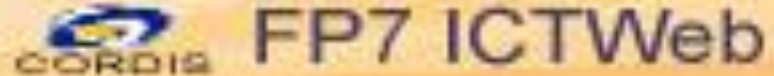


Use of Internet Protocol version 6 (IPv6) by research projects

- Depletion of IPv4 addresses is today a reality (IANA pool is now exhausted)
- Commission adopted in May 2008 an action plan to support deployment of IPv6
- In this action plan, FP7 research projects are strongly encouraged to use IPv6 for a durable and sustainable impact on ICT



Getting help with proposals



- <http://cordis.europa.eu/fp7>
- National Contact Points: http://cordis.europa.eu/fp7/ncp_en.html
- Partner search facilities: <http://www.ideal-ist.net/>
- Information desk: ict@ec.europa.eu
- IPR Helpdesk: <http://www.ipr-helpdesk.org/index.html>
- Electronic proposal submission helpdesk: support@epss-fp7.org

