

# FP7 ICT Work Programme 2011-12

## ICT2010 Conference

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# Guiding you through the Programme ... and the conference

32 WP sessions

ICT 2010 Work Programme sessions	
Day 2 AM	5 sessions + this session + CIP
Day 3 AM	18 sessions + Overview + How to submit
Day 3 PM	5

More details on Call8&9 (e.g. Ch 1, 3, 8)

> 80 networking sessions

ICT2010- Networking sessions	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8	International Cooperation
Day 1 (PM)	7				2				1
Day 2	7	2	2	3	4	3			6
Day 3	9		2	1	2	3	1	1	3

From P187 in participants guide

# ICT in FP7 - Where do we stand?

- Behind us
  - ICT Calls for proposals under WP 2007-08 and WP 2009-10
    - >4200 M€ of EU funding committed
    - >1100 projects launched or to be launched
    - >10000 participations
    - >3600 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
    - 2422 M€ funding
  - ICT WP 2013
    - >1500 M€ funding
  - JTIs + AAL WPs 2011, 2012, 2013



# Next Calls for Proposals - Deadlines

- ICT Call 7.....18 Jan 2011
- EU/Brazil coordinated call .....18 Jan 2011
- FET Flagship Initiatives ..... 2 Dec 2010
- EU/Russia coordinated call .....12 Nov 2010
- FET Open ..... Continuously open
  
- Future Internet PPP Call 1 ..... 2 Dec 2010
- Energy-Efficient Buildings, Green Cars,  
Factories of the Future PPPs Call 2010... 2 Dec 2010



# FP7 ICT Programme Objectives



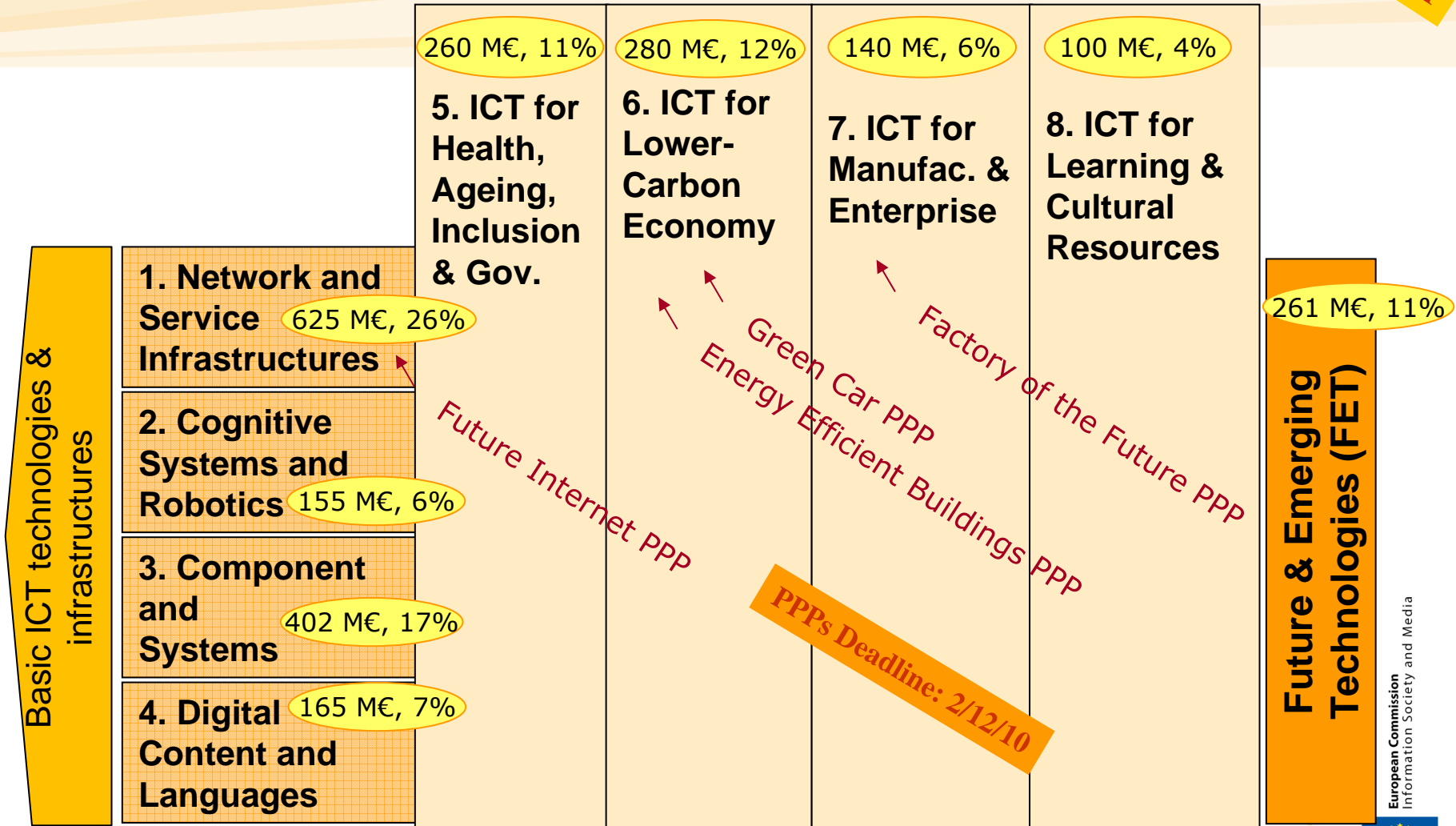
- Reinforce basic ICT technologies and infrastructures
  - seize new opportunities in emerging fields, build on existing strengths, help share risks and build partnerships
- Reinforce ICT contributions to major socio-economic challenges
  - health and ageing, lower-carbon economy, sustainable manufacturing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



# FP7/ICT Programme Structure

Call 7  
Deadline: 18/1/11

## ICT for socio-economic challenges



PPPs Deadline: 2/12/10

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

European Commission  
Information Society and Media



# 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

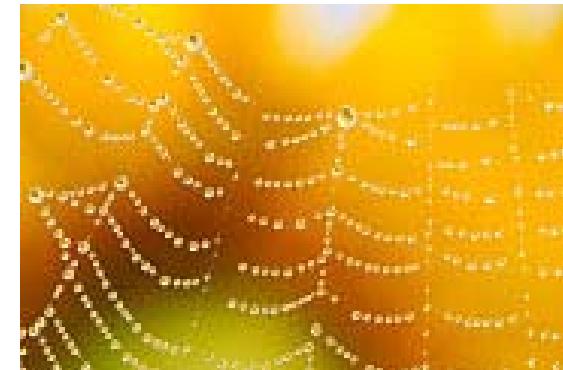


## Challenge 1

# Network and service infrastructures

**Deadline: 18/1/11**

- **30 M€** 1.3: Internet-connected objects
  - distributed networks of cooperating objects (sensors, actuators ...)
  - scale, heterogeneity, mobility ... integration with service layers ...
  - enabling person/object and object/object communications
  
- **70 M€** 1.5: Networked media and search systems
  - digital media delivery platforms: integration with network, adaptation, fusion ...
  - end-to-end immersive and interactive media technologies: 3D evolution, MR, QoE ...
  - multimedia search technologies: user-centric, context-aware, sensor-based ...
  
- **20 M€** 1.6: Future Internet Research and Experimentation (FIRE)
  - facilities for experimentally-driven R&D on Future Internet
  - providing larger scale and diversity to test and validate the developments at conditions close to reality
  - e.g Future Internet research, service platforms, 3D Internet ...
  - + 25 M€ in ICT Call 8





- 1.7-1.10: Future Internet Public Private Partnership
  - Holistic approach
    - towards very high rate mobile access, intelligent service capability, immersive media, secure and trusted platforms, new devices & sensors ..
  - 1.7: Core Platform
    - with generic enablers, functionalities that can be composed or reused...
  - 1.8: Use cases
    - application scenarios using e.g. context-awareness, RT info processing, ad-hoc service composition ...
  - 1.9: Infrastructure support
    - requirements for experiments and validation ...
  - 1.10: Programme facilitation and support
    - coordination and accompanying measures ...
  - + 80 M€ in FI PPP Call in 2012

41 M€

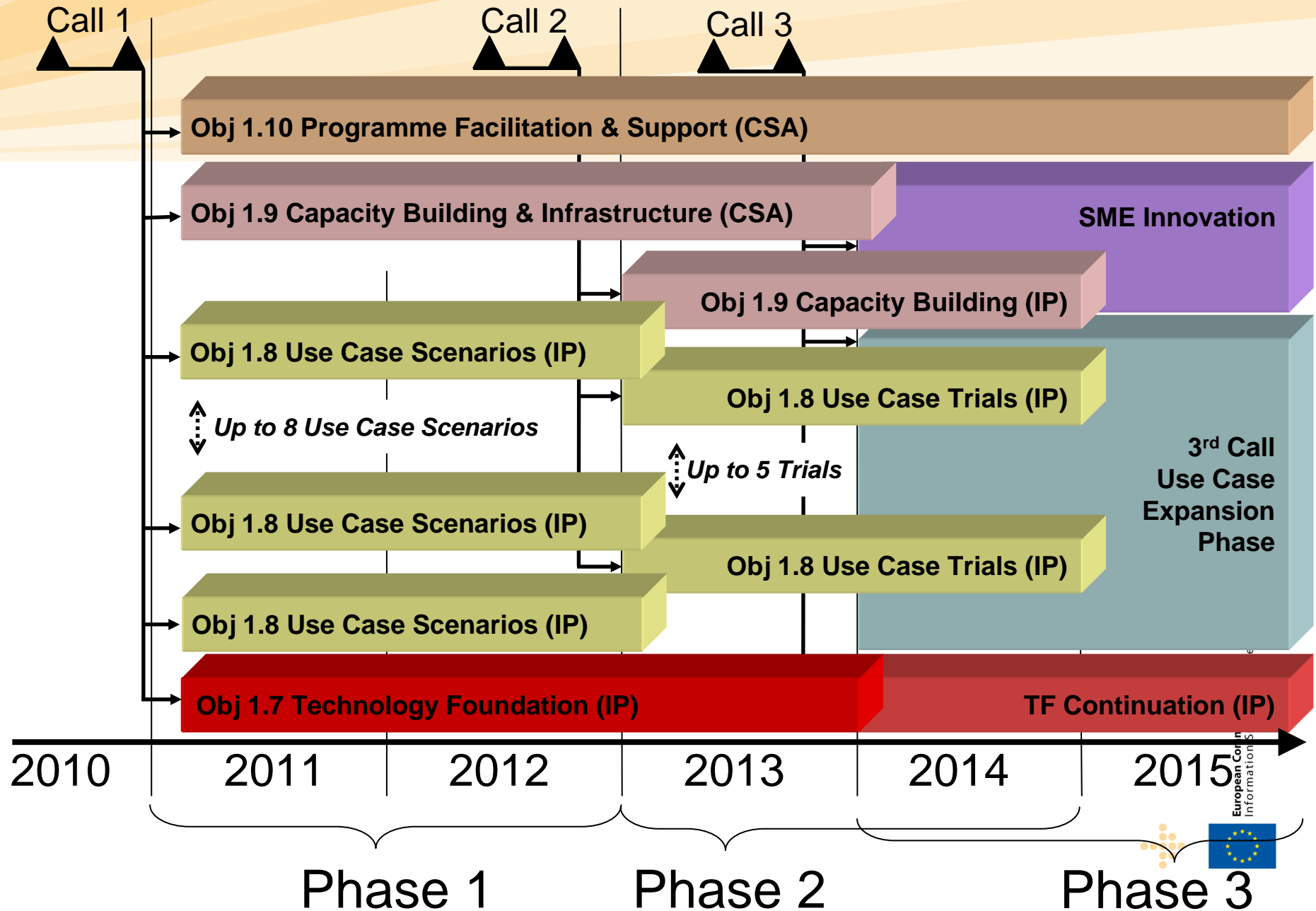
40 M€

3 M€

6 M€



# Programme Architecture



# Cognitive systems and robotics

Deadline: 18/1/11

- 2.1: Cognitive systems and robotics

73 M€

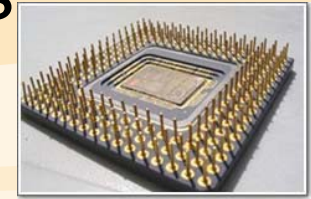
- robotic systems operating in dynamic, non-deterministic, real-life environments
  - research on engineering robotic systems and on endowing robotic systems with cognitive capabilities
  - responding in a timely and sensible manner and with a suitable degree of autonomy to gaps in their knowledge, and to situations not anticipated at design time
- cooperation between robotics and cognitive systems research communities
- + 82 M€ in ICT Call 9



## Challenge 3

# Smart systems, embedded systems computing systems

Deadline: 18/1/11



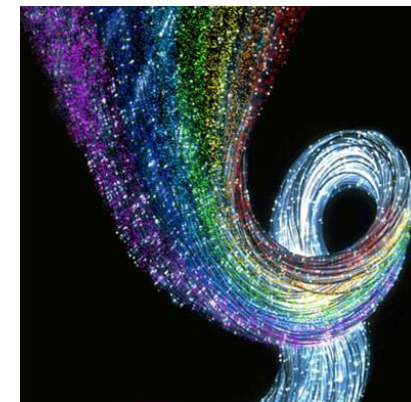
- 3.2: Smart components and smart systems integration
  - 41 M€
    - integration of new functionalities (sense, actuate, process, comm, energy scavenging ...) for next generation of application-specific components and smart systems (SoC, SiP ...)
    - convergence of microelectronics, nano-materials, biochemistry, measurement technology and ICT – complementary to the ENIAC Joint Technology Initiative
    - + 39 M€ in ICT Call 8
- 3.3: Embedded systems, monitoring and control
  - 50 M€
    - design, modelling and operation of systems composed of a large number of independent, heterogeneous and interacting embedded systems, as well as their monitoring and control
    - management of interconnected large, yet autonomous systems (systems-of-systems)
    - complementary to the ARTEMIS Joint Technology Initiative
- 3.4: Computing systems
  - 45 M€
    - parallelisation and programmability methods
    - allow adaptation of existing software to multicore computing architectures and systems
    - embedded devices/general-purpose/high performance computing



# Photonics, organic electronics

Deadline: 18/1/11

- 3.5: Core and disruptive photonic technologies  
25 M€
  - lasers, waveguides, photodetectors, amplifiers, LEDs, optical fibres, etc
  - new components and systems for: laser systems, optical fibres, quantum comm, biophotonics, imaging systems, lighting, info displays, memory, storage ...
  - + 92 M€ in ICT Call 8
- 3.6: Flexible, organic and large area electronics and photonics  
50 M€
  - advanced, low temperature processing, printable devices and systems on large area and/or flexible substrates
    - Eg. light emitting and sensing devices, photovoltaics, displays, printed electronics for smart tags, or wearable smart textiles



# Technologies for digital content and languages

Deadline: 18/1/11

• **50 M€** 4.2: Language technologies

- allowing people to access and use online content and services across language barriers, in their preferred language
  - human language as communication means: multilingual content processing
  - as information: information access & mining
  - as interaction: natural spoken interaction
  - roadmaps, evaluation & standards



## Challenge 5

# ICT for health

Deadline: 18/1/11



- 5.1: Personal Health Systems (PHS)  
**60 M€**
  - remote management of diseases, rehabilitation and treatment at the point of need
  - analysis of multi-parametric data
- 5.2: Virtual Physiological Human (VPH)  
**1.5 M€**
  - CSA to develop roadmap for grand challenge on “Digital Patient”
    - patient-specific models for better prediction and treatment of diseases
  - + 66.5 M€ in ICT Call 9
    - focused on more elaborate and reusable multi-scale models and a VPH information infrastructure of larger repositories
- 5.3: Patient Guidance Services (PGS)  
**35 M€**
  - enable patients' active participation in care processes
  - semantic interoperability to enable integration of patient information from multiple sources and locations
  - ubiquitous and secure access to personal EHR



# ICT for ageing well, inclusion and governance

Deadline: 18/1/11

- 5.4: ICT for Ageing and Well-being  
**37 M€**
  - service and social robotics and highly intelligent environments
  - self-learning, context-awareness, adaptation, user interaction ...
  - complementary to the Ambient Assisted Living (AAL) Programme
- 5.5: ICT for smart and personalised inclusion  
**35 M€**
  - solutions for social and economic inclusion through inclusive design, accessible, personalisable and human-ICT interfaces
  - social computing and solutions for learning and skills acquisition
  - Brain-Neural Computer Interfaces
- 5.6: ICT solutions for governance and policy modelling  
**25 M€**
  - to help deal with future scenarios involving greater complexity and citizens' involvement
  - modelling, simulation, visualisation ...





## Challenge 6

# ICT for a low-carbon economy



Deadline: 18/1/11

- **35 M€** 6.2: ICT systems for energy efficiency
  - energy efficient design and decision support tools
  - optimizing the energy performance during systems development and operation
  - e.g. simulation and planning, enterprise management systems, data centres ...
  
- **20 M€** 6.4 : ICT for energy-efficient buildings and spaces of public use
  - building energy management systems
  - interoperation with other ICT-based sub-systems
  - part of Public-Private Partnership on Energy-Efficient Buildings
  
- **50 M€** 6.6: Low-carbon multi-modal mobility and freight transport
  - technologies and services for multi-modal freight and logistics
  - ICT for clean and efficient multi-modal mobility for further improving energy efficiency and reducing CO2 emissions
  - all modes of transport for passengers and goods
  
- **30 M€** 6.8: ICT for fully electric vehicles (FEV)
  - building blocks of FEV
    - energy storage systems, energy/comm/thermal management, stability control, electric drive, functional safety and durability ...
  - integrating FEV with infrastructures
    - vehicle-to-grid interface, vehicle-to-cooperative transport infrastructure integration ...
  - part of Public-Private Partnership on Green Cars

Deadline: 2/12/10

Deadline: 18/1/11

Deadline: 2/12/10



## Challenge 7

# ICT for the enterprise and manufacturing

Deadline: 2/12/10

- 7.3: Virtual factories and enterprises
  - 45 M€
    - end-to-end integrated ICT for higher management efficiency in networked business operations
    - supporting the emergence of 'smarter' virtual factories/enterprises
- 7.4: Digital factories: manufacturing, design and product lifecycle management
  - 35 M€
    - engineering platforms
      - info sharing, workflow integration ...
    - simulation and virtual prototyping
      - using more accurate digital models ...
    - holistic modelling and simulation
      - of full complex products/processes ...



# FET Open

## *Future and Emerging Technologies*

- 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:

<b>Batch</b>	<b>Short STREPs</b>	<b>Full STREPs and CSAs</b>
10	8/6 2010	7/12 2010
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 – Special initiatives



- **10 M€** Preparation for FET Flagships
  - 9.5: integrate fragmented research efforts around large-scale, visionary & goal-driven, multidisciplinary research initiatives

**Deadline: 2/12/10**

- **3 M€** Coordination and support
  - 9.12: Coordinating Communities, Identifying new research topics for FET Proactive initiatives and Fostering Networking of National and Regional Research Programmes
  - + 5.5 M€ in ICT Calls 8 and 9

**Deadline: 18/1/11**

- **25 M€** 9.13: Exa-scale computing, software and simulation

**Deadline: 18/1/11**

- computing platforms with potential for extreme performance (100 petaflop/s in 2014 with potential for exascale by 2020)
- optimised application codes driven by the computational needs of science and engineering of today's grand challenges eg. climate change, energy, industrial design and manufacturing, systems biology



# International collaboration

## *Horizontal actions*

- 10.1: EU-Brazil R&D cooperation

5 M€

- 5 topics targeted: Microelectronics/Microsystems + Networked Monitoring and Control + Future Internet/experimental facilities + Future Internet/security + e-Infrastructures

Deadline: 18/1/11

- 10.2: EU-Russia R&D cooperation

4 M€

- 3 topics targeted: Programming Models and Runtime Support + Performance Analysis Tools for High-Performance Computing + Optimisation, Scalability and Porting of Codes

Deadline: 12/11/10

- 10.3: International partnership building & support to dialogues

4 M€

- Support to dialogues with strategic partner countries and regions
- Analysis of ICT research priorities in third countries, events ...

Deadline: 18/1/11



# Network of NCP, Cooperation in Enlarged EU

## *Horizontal actions*

**Deadline: 18/1/11**

- 11.2 Trans-national Co-operation Among NCPs

**4 M€**

- promoting further trans-national cooperation within this network
- proposals are expected to include or enable the active participation of all NCPs which have been officially appointed by the relevant national authorities (EU + associated countries)

- 11.3: Supplements to Strengthen Cooperation in ICT R&D in an Enlarged EU

**10 M€**

- reinforce the cooperation across the enlarged EU
- support to the participation of additional partners in on-going FP7/ICT IP and STREP projects ending after 30 June 2012
- increase the level of expertise, broaden the scope and/or speed up developments
- additional partners must be located in countries not already present in the existing consortium
- funding requested should not exceed 30% of the Commission funding of the existing project or EUR 1 million, whichever is lower

**Deadline: 18/1/11**



# Next Calls for Proposals - Deadlines

- ICT Call 8.....17 Jan 2012
- ICT Call 9.....17 Apr 2012
- SME initiative on digital content & languages ... 28 Apr 2011
- FET Open ..... Continuously open
  
- Future Internet PPP Call 2 ..... 29 Oct 2012
- Energy-Efficient Buildings, Green Cars,  
Factories of the Future PPPs Call 2011..... 2 Dec 2011





# *Funding schemes/Instruments*





## 3 funding schemes – 5 “instruments”

- Collaborative Projects (CP)\*
  - Small or medium scale focused research actions (“STREP”)
  - Large Scale Integrating Projects (“IP”)
- Networks of Excellence (NoE)
- Coordination and Support Actions (CSA)
  - Coordinating or networking actions (“CA”)
  - Support Actions (“SSA”)

2216 m€  
~92,5% of 2011/12 budget

32.5 m€  
~1,5% of 2011/12 budget

151 m€  
~6% of 2011/12 budget

ICT Workprogramme shows budget pre-allocation to instruments

\*include SICA – Specific International Co-operation Actions



# Integrating Projects (IPs)

Ambitious objective driven research with a 'programme approach'

Activities in an Integrating Project may cover

- research and technology development activities
- demonstration activities
- technology transfer or take-up activities
- training activities
- dissemination activities
- knowledge management and exploitation
- consortium management activities
- other activities

Some figures:

typically 36-60 months

7-36 participants – avg 15

4-19 m€ funding – avg 8.3

An Integrating Project comprises

- a coherent set of activities
- and an appropriate management structure



# Focused projects (STREPs)

- Targeting a specific objective in a clearly defined project approach
- Fixed overall work plan with stable deliverables that do not change over the life-time of the project
- Contain two types of activity or combination of the two:
  - **research and technological development activity**  
e.g. to generate new knowledge,  
to improve competitiveness,  
to address major societal needs
  - **demonstration activity**  
to prove the viability of new technologies  
but which can not be commercialised directly  
(e. g. testing of product like prototypes)

as well as

- **Consortium management activities** (including innovation related activities like protection of knowledge dissemination and exploitation)

## Some figures:

typically 18-36 months

4-24 participants – avg 8

1-6 m€ funding – avg 2.7

# Networks of excellence

To overcome the fragmentation of the European research landscape in a given area and remove the barriers to integration

To reach a  durable  restructuring and integration of efforts and institutions or parts of institutions

The success of an NoE is not measured in terms of scientific results

.....but by the extent to which the social fabric for researchers and research institutions in a field has changed due to the project,

....and the extent to which the existing capacities become more competitive as a result of this change

## Some figures:

typically 48-60 months

4-49 participants – avg 18

2-8 m€funding – avg 4.6



# Networks of excellence

**The JPA contains a range of “additional to normal business” activities:**

## **Integrating activities**

- coordinated programming of the partners' activities
- sharing of research platforms/tools/facilities
- joint management of the knowledge portfolio
- staff mobility and exchanges
- relocation of staff, teams, equipment
- reinforced electronic communication systems

## **Activities to support the network's goals**

- Development of new research tools and platforms for common use
- Generating new knowledge to fill gaps in or extend the collective knowledge portfolio

## **Activities to spread excellence**

- training researchers and other key staff
- dissemination and communication activities
- networking activities to help transfer knowledge to outside of the network
- where appropriate, promoting the exploitation of the results generated
- where appropriate, innovation-related activities

## **Consortium management activities**



# Coordination actions

## Designed to:

- promote and support the ad hoc networking and co-ordination of research and innovation activities at national, regional and European level over a fixed period for a specific purpose
- by establishing in a coherent way coordinated initiatives of a range of research and innovation operators, in order to achieve improved cooperation of the European research

May combine the following two types of activities

- Co-ordination activities
- Consortium management activities

### Some figures:

typically 19-36 months

3-40 participants – avg 11

0.3-3 m€ funding – avg 1

***(Coordination actions do not conduct S&T research !)***



# Support actions

## Designed to

- underpin the implementation of the programme
- complement the other FP7 funding schemes,
- help in preparations for future Community research and technological development policy activities and
- stimulate, encourage and facilitate the participation of SMEs, civil society organisations, small research teams, newly developed and remote research centres, as well as setting up research clusters across Europe
- Cover one off events or single purpose activities

May combine the following two types of activities

- Support activities
- Consortium management activities

### Some figures:

typically 9-30 months

1-21 participants – avg 8

0.2-3 m€funding – avg 0.9

European  
Informati



***(Support actions do not conduct S&T research !)***

# Getting help with proposals



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



# **ICT Proposers' Day 2011** **19 - 20 May 2011, Budapest** **Networking for European ICT R&D**



- Prepare for Calls 8 and 9
- Networking and partnerships building
  - first-hand information from >100 EC officials
- Structure:
  - thematic sessions with presentations of proposal ideas
  - information stands & meeting points
- Registration:  
free of charge, open from January 2011

 2011.hu

<http://ec.europa.eu/ictproposersday>

