

## FP7 ICT Work Programme 2011-12

### **Remaining Calls up to the end of 2012**

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## FP7 ICT Programme Objectives

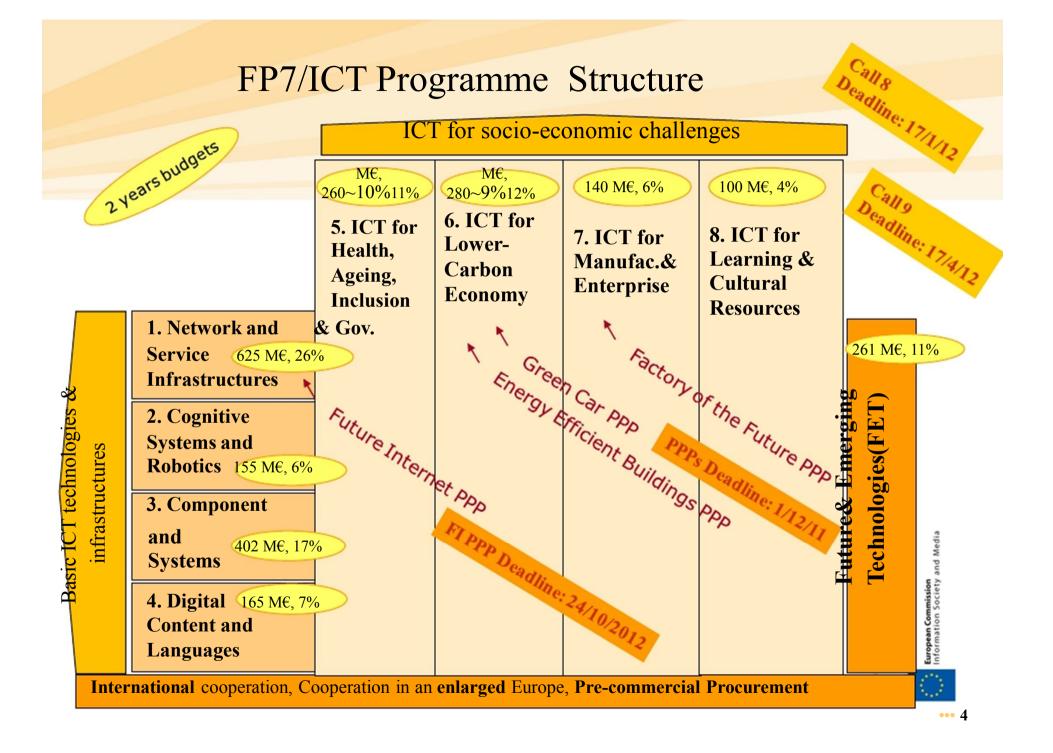
- Reinforce basic ICT technologies and infrastructures
  - seize new opportunities in emerging fields, build on existing strengths, help share risks and build partnerships
- Reinforce ICT contributions to major socio-economic challenges
  - health and ageing, lower-carbon economy, sustainable manufacturing 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



- Call launch 20th July 2011
- Call close <u>17<sup>th</sup> January 2012</u>; 17h00 Brussels time
- Total indicative budget 785.5 M€
- Ca. **1400** proposals (expected)?
- Evaluation February-April 2012



## **Twelve objectives in five of ICT Challenges**

- **1.1 Future networks**
- **1.2 Cloud computing; advanced software engineering**
- **1.4 Trustworthy ICT**
- **1.6 Future Internet research and experimentation**
- 3.1 Nanoelectronic components
- 3.2 Smart components and smart systems integration
- 3.5 Photonics technologies
- 4.4 Intelligent information management
- 6.1 Smart energy grids
- 6.3 Efficient water resources management
- 6.7 Cooperative systems for energy efficiency and mobility
- 8.1 Technology-enhanced learning



Four FET Proactive objectives

- 9.6 Unconventional computation
- 9.7 Dynamics of multi-level complex systems
- 9.8 Minimising energy consumption of computing to the limit
- 9.12 Coordinating communities, identifying new research topics, fostering networking of national and regional programmes

Two specially targeted actions 9.14 Science of global systems 11.1 Pre-commercial procurement actions

European Commission Information Society and Media

# **Public Private Partnership calls 3**

## Factories of the Future 2012 (FoF)

- 7.1 Smart factories; energy-aware, agile manufacturing and customisation
- **7.2** Manufacturing solutions for new ICT products
- **Energy-efficient Buildings (EoB)**
- 6.5 ICT for energy-positive neighbourhoods
- Green Cars (GC)
- **6.8 ICT for fully electric vehicles**



# **Public Private Partnership calls 3**

- Calls launch <u>20th July</u> 2011
- Calls close 1st December 2011; 17h00 Brussels time
- Total indicative ICT budget
  FoF 60 M€; EeB 30 M€; GC 30 M€
- FoF **60**; EeB **35**; GC **20** ca. proposals?
- Evaluation January-March 2012



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





- Call launch <u>18th January</u> 2012!!!!
- Call close <u>17<sup>th</sup> April 2012</u>; 17h00 Brussels time
- Total indicative budget 291 M€



Five objectives in five of ICT Challenges

- 2.1 Cognitive Systems and Robotics
- 4.3 Digital Preservation
- 5.2 Virtual Physiological Human (VPH)
- 8.2 ICT for access to cultural resources
- 10.3 International Partnership building & dialogues

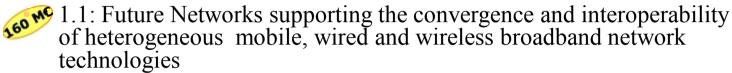


Four FET Proactive objectives

- 9.9 FET Proactive: Quantum ICT
- 9.10 FET Proactive: Collective Adaptive Systems (FOCAS)
- 9.11 FET Proactive: Neuro-Bio-Inspired Systems (NBIS)
- 9.12 Coordinating communities, identifying new research topics, fostering networking of national and regional programmes



## Challenge 1 Network and service infrastructures Call 8



novel Internet architectures; networkmanagement and operation frameworks, wireless and broadband systems and ultra-high capacity all-optical networks



1.2: Cloud computing, Internet of Services & advanced software engineering

technologies specific to the networked, distributed dimension of softwareand the access to services and data



### 1.4: Trustworthy ICT

securityin networked service and computing environments; trust, privacy and claims management infrastructures; datapolicy, governance and socio-economic aspects of trustworthvICT



### 1.6: Future Internet Research and Experimentation (FIRE)

- FIRE Eederation FIRE Experimentation
- Coordination and support



Deadline: 171112

## Future Internet PPP

Launch date: 18/5/12



Challenge 1

### 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



### 1.9: Capacity Building and Infrastructure support

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



Deadline:24/10/12

# 2.1 Cognitive systems and robotics (Call 9) Deadline: 17|4|12

### Launch date: 18/1/12



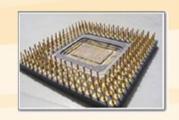
Challenge 2

- Cognition and control in complex systems
  - cognitivecapabilities to enhance performanceand 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
  - comparativeperformanceevaluation
- Smarter robots through targeted competitions
  - reference scenarios
  - soliciting private sponsorships
  - organising and managing events





# Nanoelectronics, Smart systems, Photonics – Call 8





- 3.1: Very advanced nanoelectronic components: design, engineering, technology and manufacturability
  - alternative solutions to the traditional miniaturisation path, for information & communication systems & other applications



- 3.2: Smart components and smart systems integration
  - Micro-Nano Bio Systems (MNBS)
    - Increased intelligence
    - Enhanced miniaturisation
    - Increased integration

### 92 MC 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)



# Chair Technologies for digital content and languages



### 4.3: Digital preservation – Call 9

- Ensuring reliability of retrieval and use of digital resources across applications and platforms over time, and design digital content natively engineered for obsolescence avoidance
- 4.4: Intelligent information management Call 8



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|4|12

# ICT for health 5.2 Virtual Physiological Human – Call 9



Challenge 5

- 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 Call 8 and PPP



Deadline: 17/1/12

- 30<sup>MC</sup> 6.1: Smart energy Grids
- Deadline: 1711/12 - Intelligent systems and integrated communication infrastructureto assist in management of electricity grids



Challenge 6

- 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 MC 6.5: PPP EEB: ICT for energy-positive neighbourhoods

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

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



Deadline: 1/12/11



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## ICT for a low-carbon economy Call 8 and PPP



- 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

### 6.8: **PPP** GC: ICT for fully electric vehicles (FEV)

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

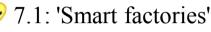
### ->Part of Public-Private Partnership on Green Cars



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Deadline: 17/1/12

# Chain ICT for the enterprise and manufacturing -PPP



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

#### ->Part of Public-Private Partnership on Factories of the Future



Deadline: 1/12/11



- 7.2: 'Manufacturing solutions for new ICT products'
- Feasibilitydemonstrators 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

#### ->Part of Public-Private Partnership on Green Car

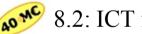


# Challenge 8 ICT for learning and cultural resources



### 60<sup>MC</sup> 8.1: Technology-enhanced learning – Call 8

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



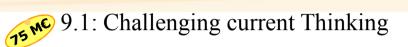
- 8.2: ICT for access to cultural resources <u>Call 9</u>
  - Enhancing the meaning and experiences from digital cultural and scientific resources
  - Creating personalised and engaging digital cultural experiences
  - Platforms for building services to support use of cultural resources for research and education
  - Technologies for the digitisation of cultural resources



Deadline: 17|4|12

Deadline: 171112

### FET Open Future and Emerging Technologies



9.2: High-Tech Research Intensive SMEs in FET research

6<sup>MC</sup> 9.3: FET Young Explorers

3<sup>MC</sup> 9.4: International cooperation on FET research

• Cut-off dates:

Batch	Short STREPs	Full STREPs and CSAs
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

Deadline: 31/12/12

## FET Proactive and special initiative

### Call 8

- **15**<sup>MC</sup> 9.6: Unconventional Computation
  - 9.7: Dynamics of Multi-Level Complex Systems
- 5 9.8: Minimising Energy Consumption of Computing to the Limit
- **3**<sup>MC</sup> 9.12: Coordination

### <u>Call 9</u>



- 9.9: Quantum ICT
- 9.10: Fundamentals of Collective Adaptive Systems
  - 9.11: Neuro-Bio Inspired Systems
- 9.12: Coordination



9.14 'Science of Global Systems' – <u>Call 8</u>

• Tools to represent uncertainty and to construct chains of causality for use in socio-political decision processes



Deadline: 17|4|12

Deadline: 1711112

# International collaboration

Horizontal actions Call 9



## 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





Deadline: 17|4|12

## Next Calls for Proposals – <u>Deadlines</u> - Reminders

•	Energy-Efficient Buildings, Green Cars, Factories of the Future <b>PPPs</b> Call 2011 1 Dec 20	)11
•	ICT <b>Call 8</b>	
•	Future Internet <b>PPP</b> Call 2 24 Oct 2	2012

• FET Open .....Continuously open

# New Ideal-ist in your disposal

## http://www.ideal-ist.eu/



# Getting help with proposals



- <u>http://cordis.europa.eu/fp7</u>
- <u>http://cordis.europa.eu/fp7/ict/</u>
- National Contact Points: <u>http://cordis.europa.eu/fp7/ncp\_en.html</u>
- Partner search facilities: <u>http://www.ideal-ist.eu/</u>
- Information desk: <u>ict@ec.europa.eu</u>
- IPR Helpdesk: <u>http://www.ipr-helpdesk.org/index.html</u>
- Electronic proposal submission helpdesk: <a href="mailto:support@epss-fp7.org">support@epss-fp7.org</a>

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## Thank you for your attention! And – good luck!

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