

# THE EU DIGITAL AGENDA: A LEAP TOWARDS BETTER EDUCATION

by  
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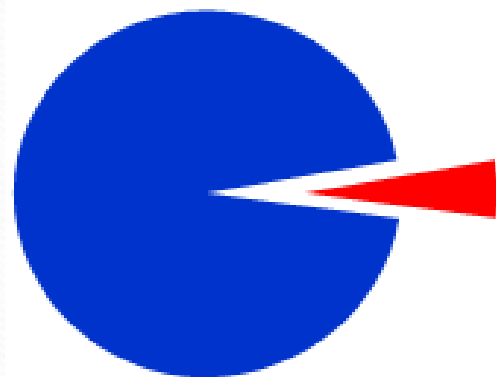
*UNESCO International Workshop  
Re-designing Institutional Policies and Practices to Enhance the  
Quality Education through Innovative use of Digital Technologies*

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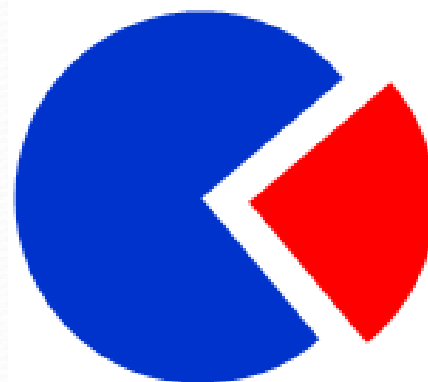
## Why ICT matters

**The ICT sector represents 4.8% of the EU economy**



**ICT sector value added as a % of GDP**

**ICT manufacturing (1% of the GDP) alone generates 25% of total business R&D**



**ICT contribution to labour productivity growth**

**The ICT sector and investment in ICT are responsible for 50% of productivity growth**

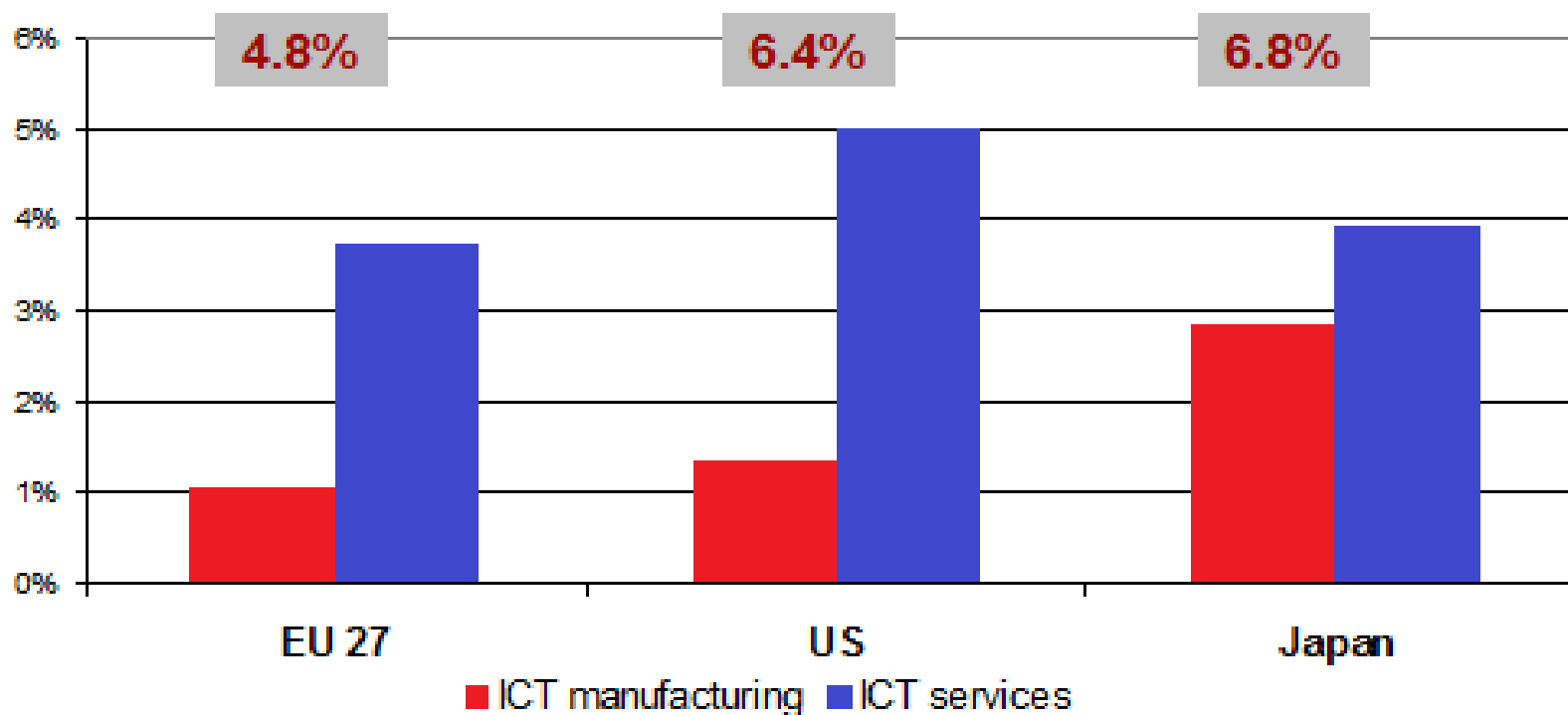


**Share of ICT in business R&D expenditure**

Source: Eurostat, IPTS-JRC and EU KLEMS

# Why ICT matters

Share of the ICT sector in the EU, the USA and Japan



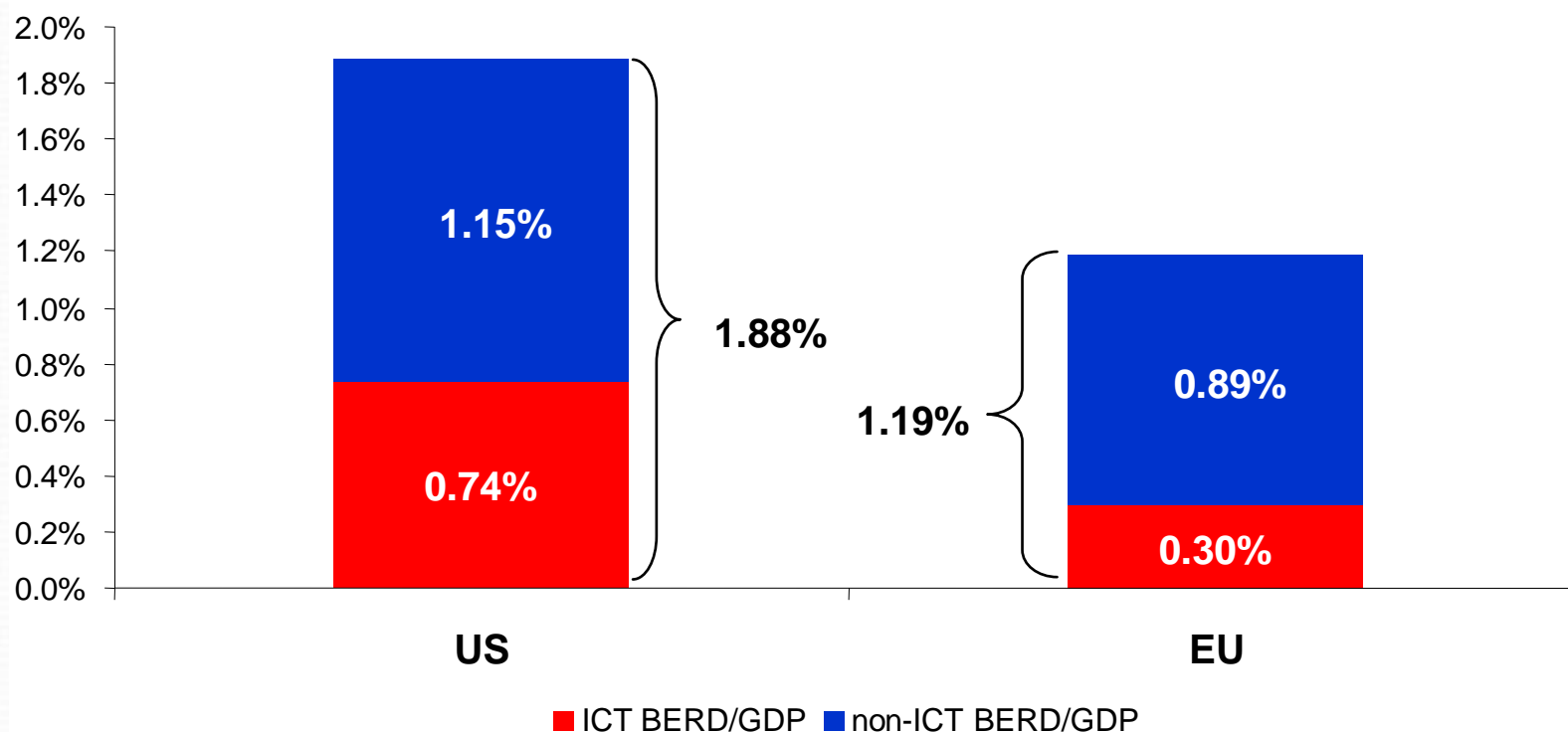
ICT value added in % of GDP

Source: Eurostat and IPTS-JRC



# Investment in Digital Economy is key to future prosperity

Business R&D spending in the USA and in the EU



Contribution of ICT and non-ICT sectors to total BERD intensity (% of GDP, 2007)

Source: IPTS-JRC

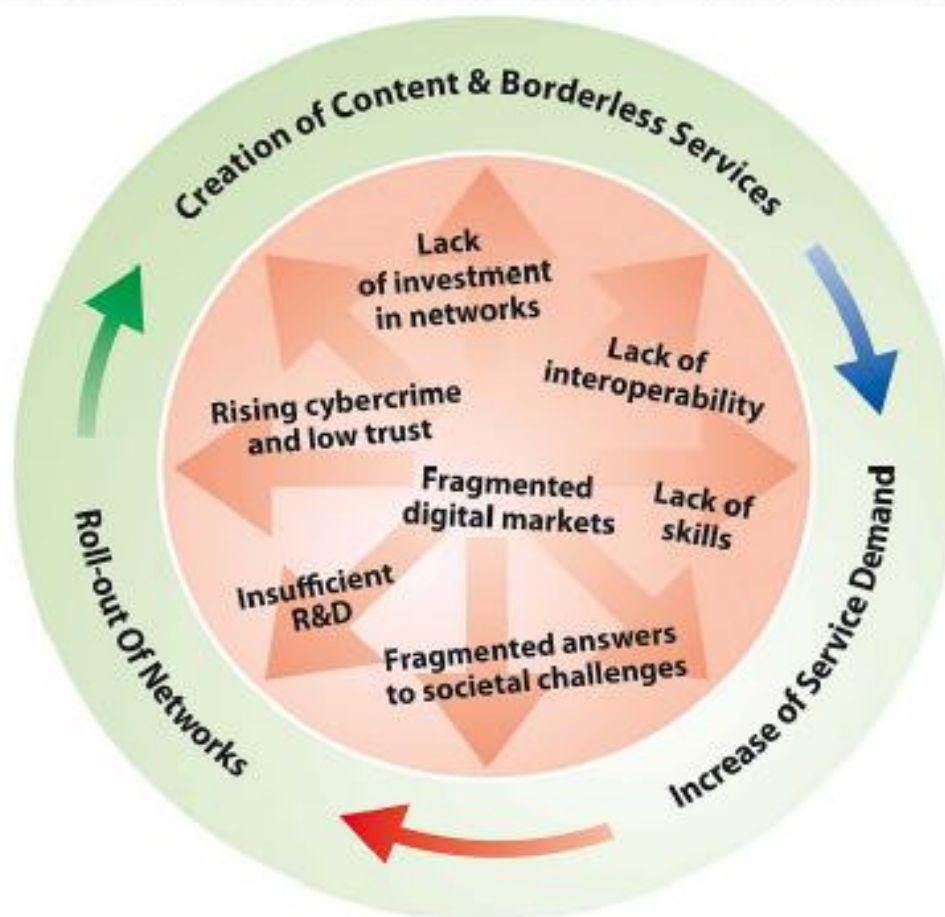
## Europe 2020

- Europe 2020 is the EU's growth strategy for the coming decade, with priorities for a smart, sustainable and inclusive economy
- Europe 2020 sets out objectives on employment, innovation, education, social inclusion and climate/energy

# Digital Agenda for Europe

- One of seven lead initiatives of the Europe 2020 strategy
- Aim:
  - overcoming the crisis
  - preparation for the challenges of the century
- Function:
  - work plan for the European Commission
  - cross-portfolio approach

# The seven challenges identified in the Digital Agenda for Europe





# DAE priority area for Research and Innovation

## The priorities are:

- To reach the overall 3% R&D headline target in Europe 2020 public investment EU Member States will have to **double annual public spending on ICT R&D from €5.5 billion to €11 billion** (including EU Programmes)
- To leverage private spending from €35 billion to €70 billion for example by stimulating pre-commercial procurement, public private partnerships
- To develop 'light and fast' ways for SMEs and young researchers to access EU funding for ICT research
- To inject more focus and **pooling of efforts in research funding.**
- To emphasize research efforts at the service of society by targeting issues such as ageing population or environmental crisis

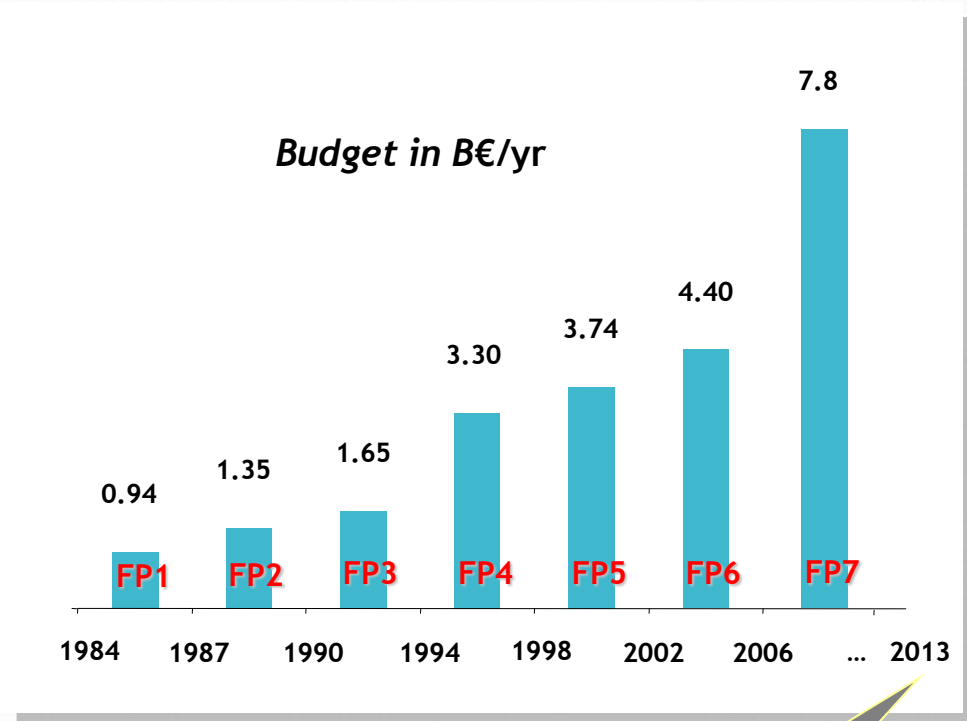


## Framework Program 7 (2007-2013)

- Budget of over € 50 billion
- “European added value”
- Main strategic objectives;
  - Strengthen scientific and technological base of European industry
  - Encourage its international competitiveness, while promoting research that supports EU policies



# FP7 Programme



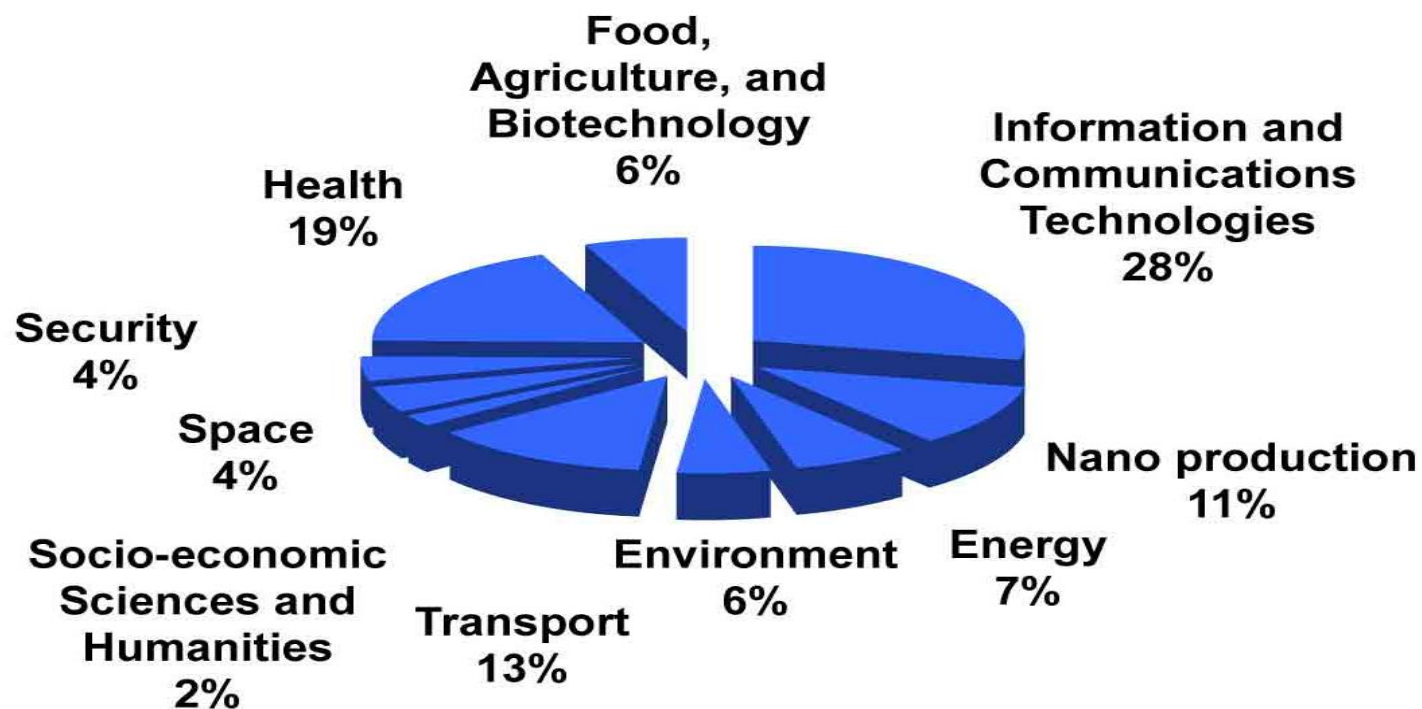
**Total  
€ 50.5 BN  
2007-2013**

- € 32.4 bn **"Cooperation"**  
Collaborative R&D, pre-defined themes, JTI
- € 7.5 bn **"Ideas"**  
Frontier research, competition, individual grants
- € 4.8 bn **"People"**  
Human potential, mobility
- € 4.1 bn **"Capacities"**  
Infrastructure, SMEs, science and society
- € 1.8 bn **Joint Research Centre** (non-nuclear)
- € 2.8 bn **EURATOM**  
EURATOM Programme
- € 1.3 bn



# FP7 Cooperation Programme (€32.4 billion)

The ICT thematic area is the largest in the Cooperation Programme with a budget of € 9,1 billion





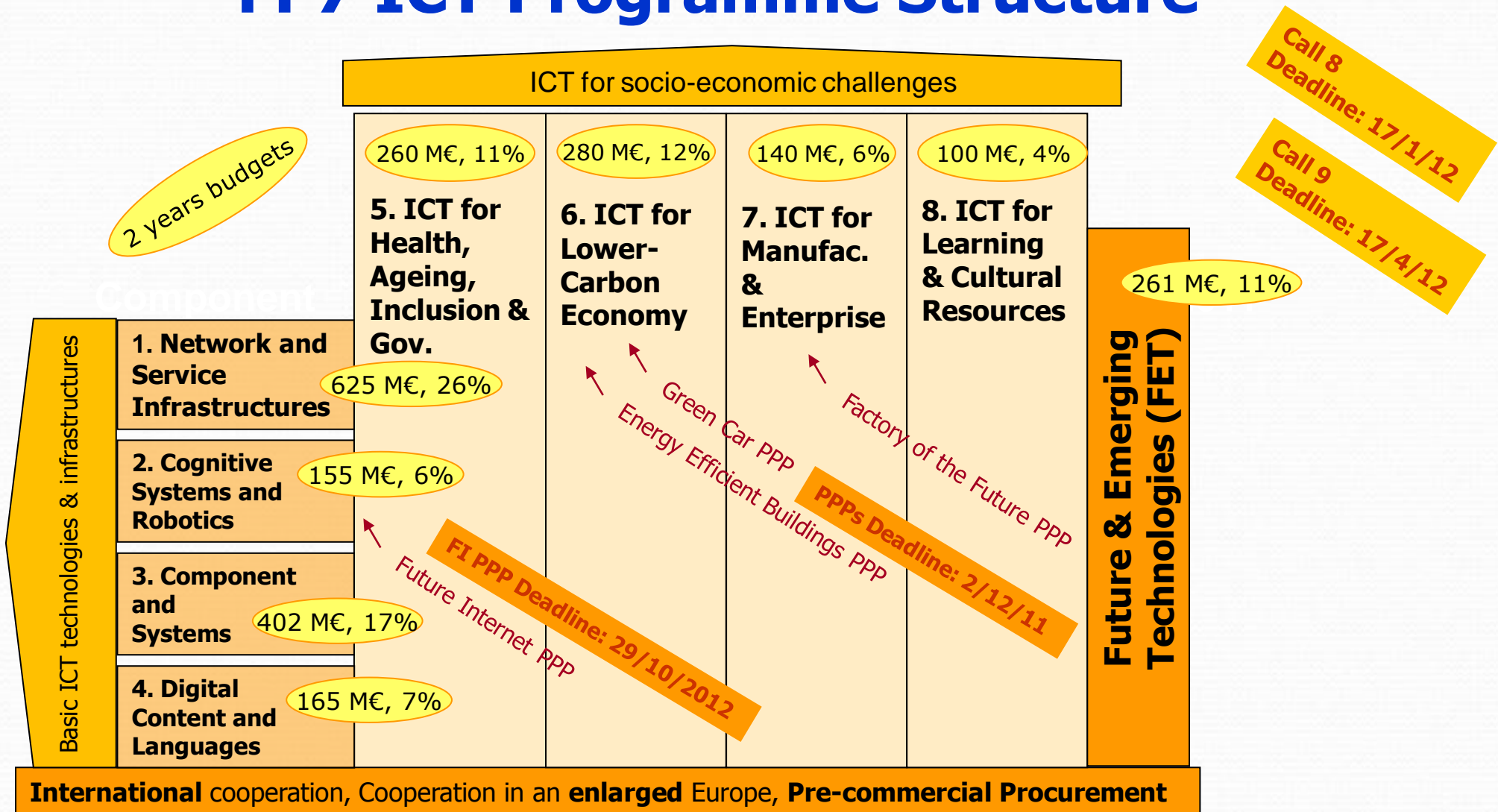
# Framework Program 7 ICT Theme

Initiatives for strategic research in priority areas of ICT can be funded via the Information Society policy priority of FP7 by a total of up to EUR 1.8 billion

## 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



# Challenges ICT Work Programme (2011-12)

- Challenge 1 - Pervasive and Trusted Network and Service Infrastructures
- Challenge 2 - Cognitive Systems and Robotics
- Challenge 3 - Alternative Paths to Components and Systems
- Challenge 4 - Technologies for Digital Content and Languages
- Challenge 5 - ICT for Health, Ageing Well, Inclusion and Governance
- Challenge 6 - ICT for low carbon economy
- Challenge 7 - ICT for the Enterprise and Manufacturing
- **Challenge 8 - ICT for Learning and Access to Cultural Resources**



# ICT for Learning

- Addresses the need for flexible and efficient access to information and knowledge for educational and training purposes
- Aims to stimulate progress in the development of applications for use in education

# ICT for Learning

## Target Outcomes

- Technology Enhanced Learning systems with the capability of human tutors
- Educational tools for : science, technology and maths
- Advanced solutions for fast and flexible deployment of learning opportunities at the workplace
- Computerised tools fostering creativity in learning processes

# ICT for Learning

## 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: 17/01/2012**

# Conclusion

- ICT is a significant contributor to the GDP both as an enabler and as an industrial sector
- Europe 2020 strategy shows the way for a smart ,sustainable and inclusive Europe
- The Digital Agenda for Europe identifies the key challenges to be solved so that Europe will exit the current financial crisis
- FP7 in general and the ICT Theme in particular make a major contribution towards the success oif the Digital Agenda for Europe
- Learning technologies are key to a more efficient and productive Europe
- Learning technologies is one of the major areas funded by the ICT Theme



# Thank you Any Questions ?

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