



# E-Infrastructures: What's on the 'HORIZON'

DC-Net International Final Conference  
Rome 2012

Wim Jansen  
European Commission - DG INFSO  
Unit "GÉANT and e-Infrastructure"



# Research Infrastructures WP 2013 e-Infrastructure plans

- **Focus on Research & Education Networking**
  - *Bridge GÉANT into H2020 while...*
  - *...adapting to continuously evolving needs of e-Science (capacity, clouds, global connectivity etc) and*
  - *implementing the GEG recommendations*
- **Up to €39 million budget**



## Overview budget (DG INFSO)

Activities	Total budget foreseen (M€)	<i>Budget used (M€)*</i>	<i>Budget available (M€)</i>
Design studies	4	4	0
Construction - preparatory phase	10	10	0
Construction - implementation phase	58	58	0
<b>e-Infrastructures</b>	<b>409</b>	<b>370</b>	<b>39</b>
Support measures	50	50	0
Total	<b>531</b>	<b>492</b>	<b>39</b>



## WP2013 – Consultations

### ***GEG report***

#### ***Consultation meeting on 18/1/2012***

- DANTE, Terena, NREN PC chair, e-IRG chair
- Unified input from the community
- GEG report overall reception by the community: positive and endorsing the vision

#### ***Géant project review and e-IRG white papers taken into account***

### ***Conclusions***

***Goal 1 - Support knowledge communities***

***Goal 2: Expand Knowledge Communities***

***Goal 3: Push the State of the Art***

***Goal 4: Reorganize for Change***





# WP2013: consultation conclusions

## *Goal 1 - Support knowledge communities*

***Traffic increase:** x3 over the last 12 month; superior to internet organic growth;*

***AAI:** EduGAIN development, adjust to data protection legislation*

***Cloud and mobility;** pan-European cloud service model*

***Large pan-European users:** one-stop-shop model*





## WP2013: consultation conclusions (2)

### *Goal 2: Expand Knowledge Communities*

***Openness:** to new users and partners e.g. with open calls for research*

***Digital Divide:** commitment to the cost sharing model and exploring additional measures*

***International** connectivity should become part of the core activities (in addition to international development aid)*





## WP2013: consultation conclusions (3)

### ***Goal 3: Push the State of the Art***

*Innovation with industry: mobile roaming and its application to sensor networks*

*Open advanced virtualised testbeds (both logically mixed and separated with Géant network)*

*Innovative business models, e.g. cloud;*

*Advanced federated services and trust: eduGAIN*

*Maintaining a balance between operation and innovation*

*The community has the potential to create spin-off to industry*





## WP2013: consultation conclusion (4)

### ***Goal 4: Reorganize for Change***

*Structural changes: aligned H2020 timing*

*Financial support: no change in FP7; considers changes in H2020; NRENs committed to co-funding*

*Global coordination for better synchronisation and synergy*

*UK initiative to improve e-RI (£ 165 M total, £ 26 M for JANET)*







## WP2013: Next Steps

### **WP2013:**

*Integration of the inputs into a draft WP (Feb-March)*

*Draft text to next RIC*

*Inter-Service consultation (May-June)*

*WP approval to the Committee (June)*

*Publication in July 2012. Deadline end November*

*Regular progress review of GEG roadmap (next meeting towards end of the year)*





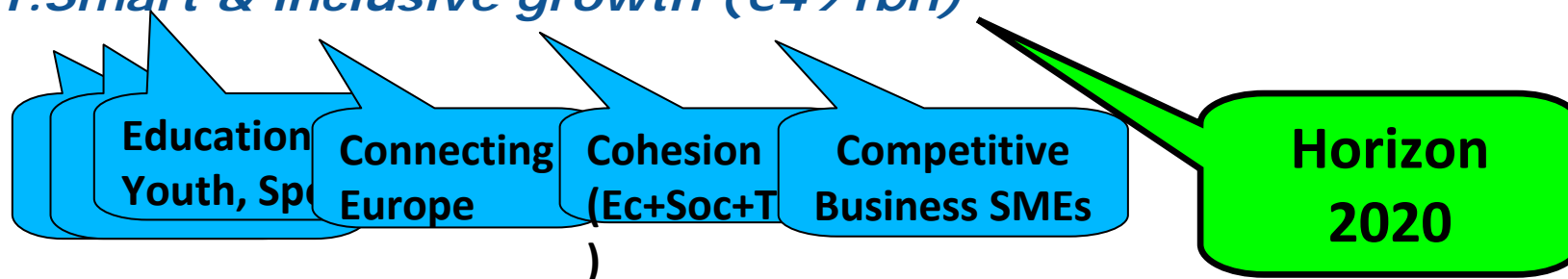
»Horizon2020





# The Multi-annual Financial Framework 2014-2020: *Commission's proposals of 29 June 2011*

## 1. Smart & inclusive growth (€491bn)

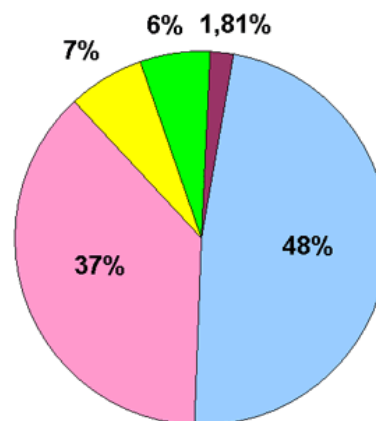


## 2. Sustainable growth, natural resources (€383bn)

## 3. Security and citizenship (€18.5bn)

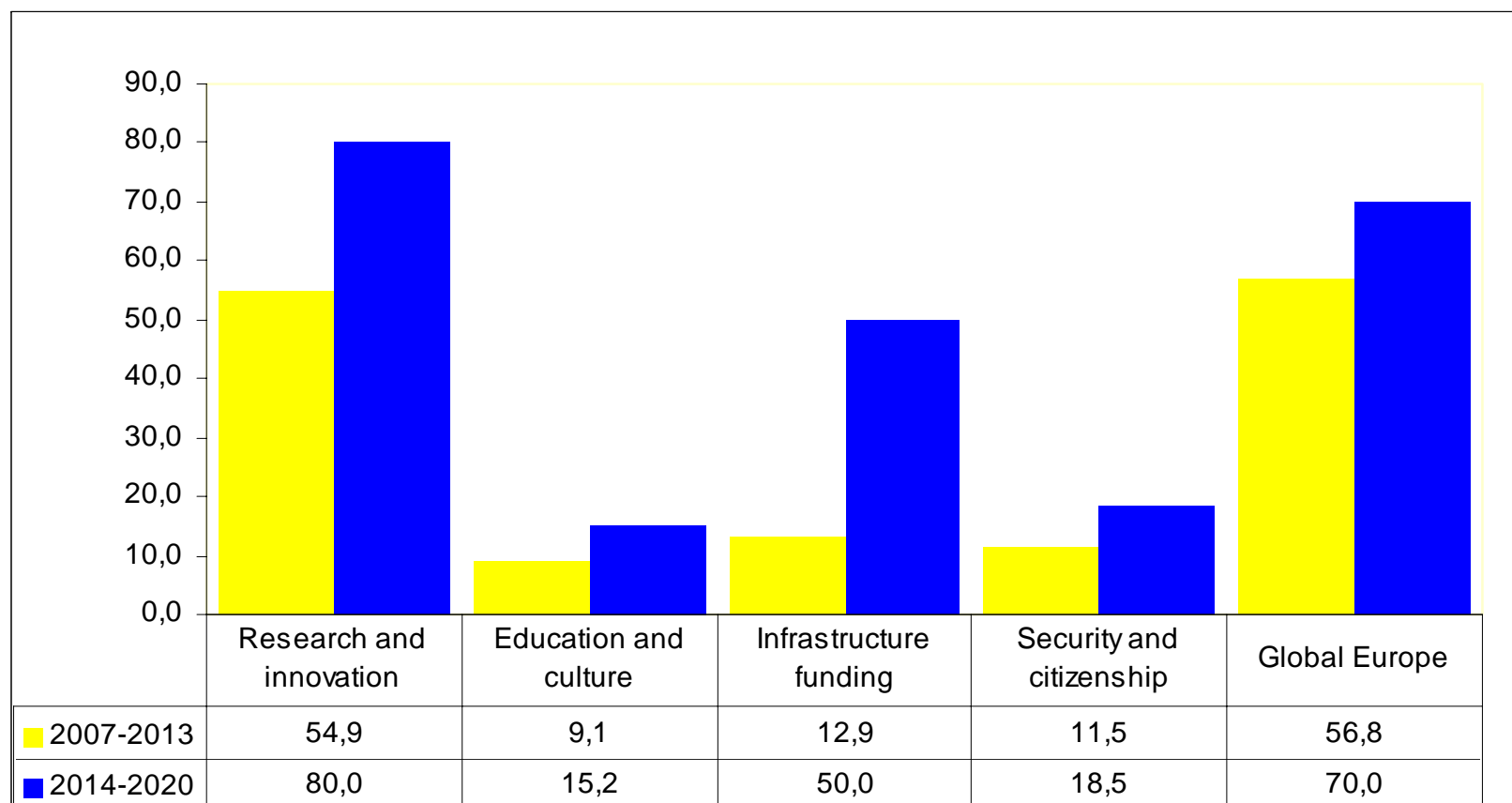
## 4. Global Europe (€70bn)

## 5. Administration (€62.6bn)

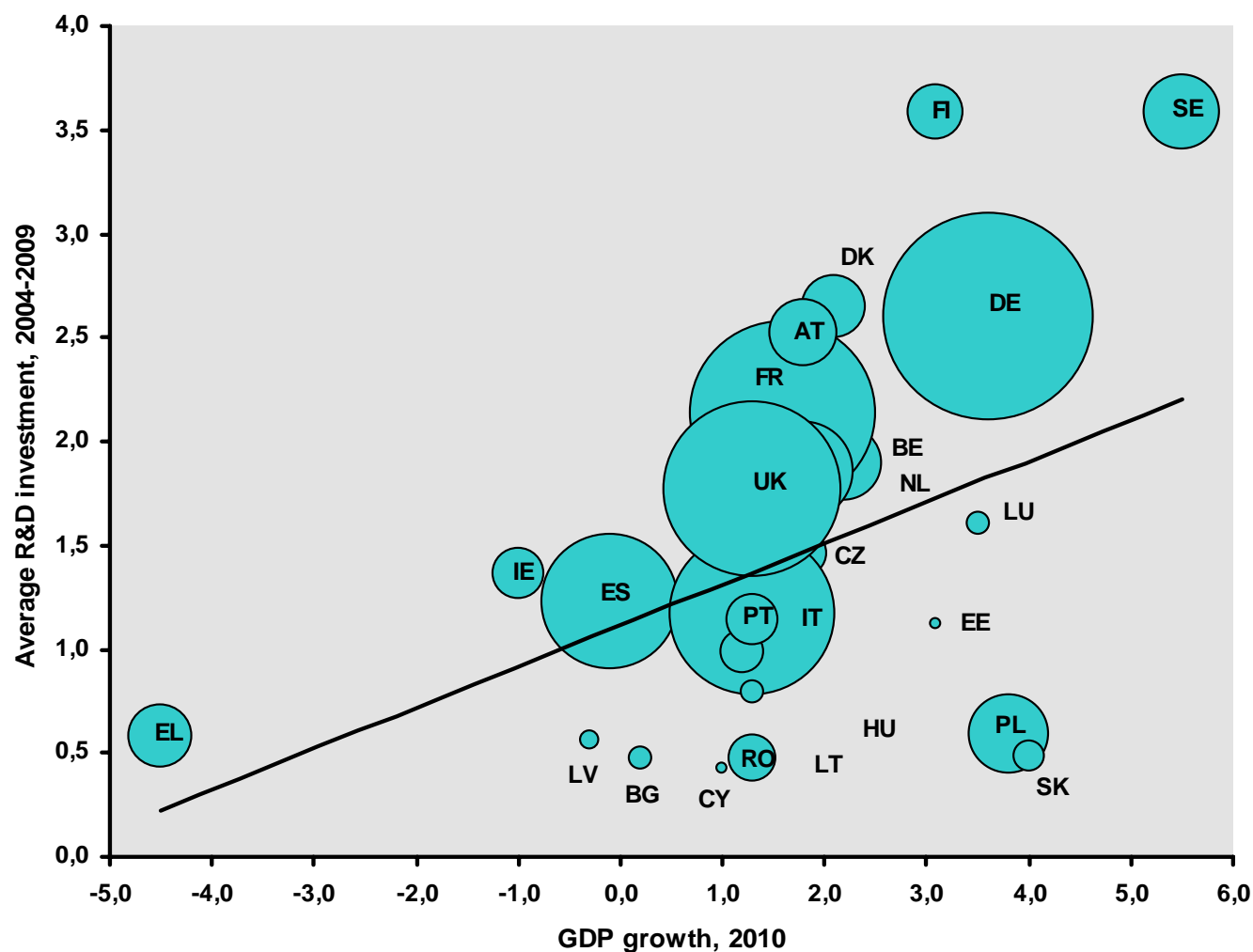


**Total:**  
**€ 1,025bn**

## Significant re-distribution in key policy areas



# Impact of R&D on economic recovery





# What is Horizon 2020

*Commission proposal for a 80 billion euro research and innovation funding programme (2014-20)*

*Part of proposals for next EU budget, complementing Structural Funds, education, etc.*

*A core part of Europe 2020, Innovation Union & European Research Area:*

- Responding to the economic crisis **to invest in future jobs and growth**
- Addressing peoples' concerns **about their livelihoods, safety and environment.**
- Strengthening the EU's global position **in research, innovation and technology**





# What's new

***A single programme*** bringing together three separate programmes/initiatives\*

***More innovation,*** from research to retail, all forms of innovation

***Focus on societal challenges*** facing EU society, e.g. health, clean energy and transport

***Simplified access,*** for all companies, universities, institutes in all EU countries and beyond.

*\*The 7th research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)*





# Three priorities:

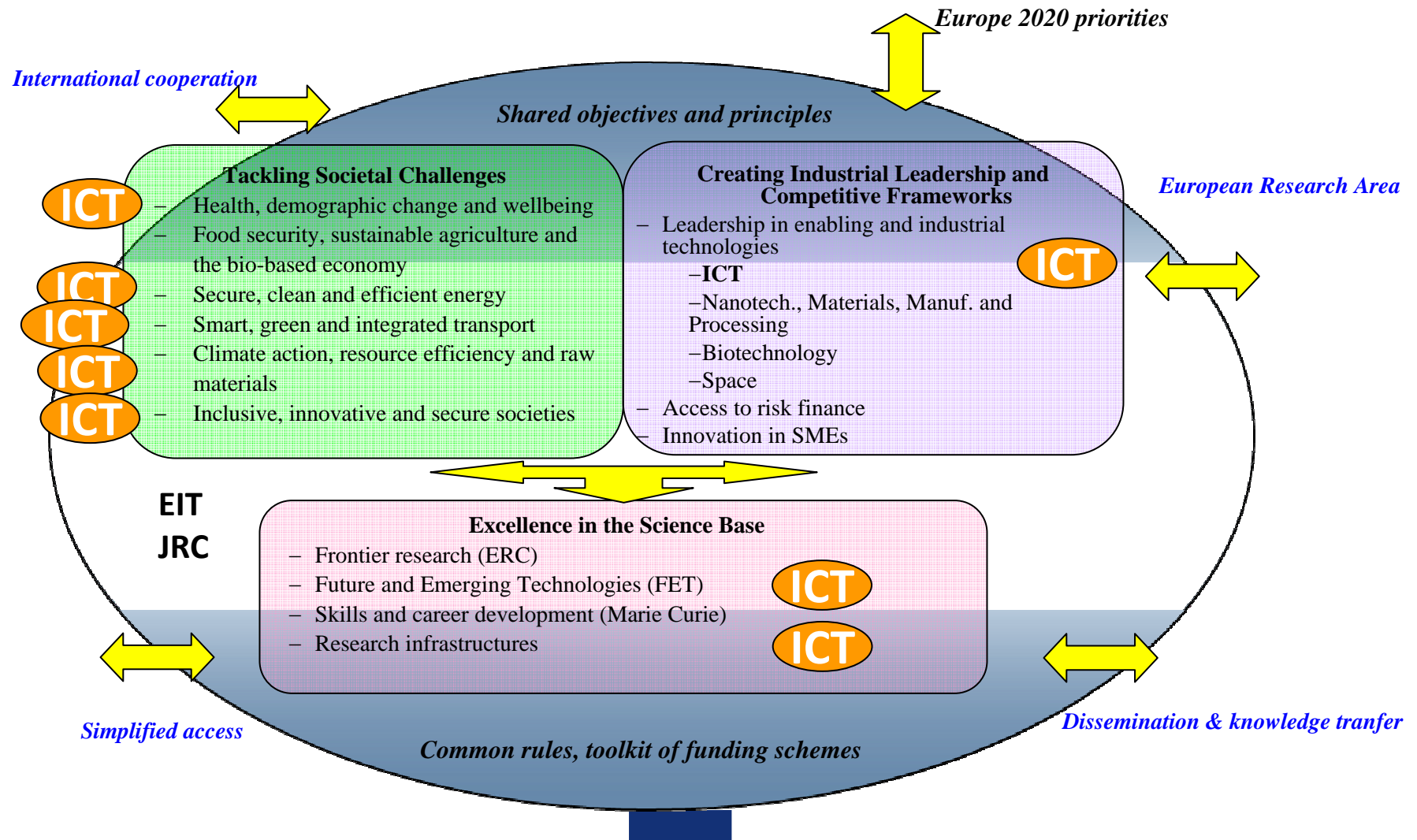
- 1      Excellent science**
- 2      Industrial leadership**
- 3      Societal challenges**







## *Horizon 2020 – Objectives and structure*





# Priority 1    Excellent science

## *Why:*

*World class science is the foundation of tomorrow's technologies, jobs and wellbeing*

*Europe needs to develop, attract and retain research talent*

*Researchers need access to the best infrastructures*





# From FP7 to Horizon 2020 –Research Infrastructures

*Endow Europe with world-class research infrastructures which are accessible to all researchers in Europe and beyond and fully exploit their potential for scientific advance and innovation*

## High level objectives:

- Developing the European Research Infrastructures for 2020 and beyond
- Fostering the innovation potential of Research Infrastructures & their human capital
- Reinforcing European Research Infrastructures policy and international cooperation

## Horizon 2020 novelties:

- New activities to support the **implementation and operation** of world-class infrastructures such as **ESFRI** infrastructures
- **Continuation** of the successful FP7 **Integrating Activities**
- **Reinforcement** of **e-infrastructures** to support compute- and data-intensive research
- New objective of better exploiting the **innovation potential and human capital** of infrastructures

**2.8 b€**



## Next steps

- Ongoing:** *Parliament and Council negotiations on EU budget 2014-20 on the basis of the Commission proposals (including overall budget for Horizon 2020)*
- Mid/end 2012:** *Final calls under 7th Framework Programme for Research to bridge gap towards Horizon 2020*
- By end 2013:** *Adoption of legislative acts **by Parliament and Council** on Horizon 2020*
- 1/1/2014:** ***Horizon 2020 starts; launch of first calls***



## Conclusions

- e-Infrastructures provide the underlying platforms enable international collaboration
- e-Infrastructures integrate and make widely available national infrastructures and resources
- e-Infrastructures implement key EU policies and strategies (e.g. the European Research and Innovation Area)
- e-Infrastructures “facilitate” cohesion, standards, innovation, etc ...