

**e-Infrastructures Workshop
Helsinki, 4-5 October 2006**

Update on IT and e-Infrastructure Work-programmes in FP7



Kyriakos Baxevanidis

Deputy Head of Unit

Research Infrastructures

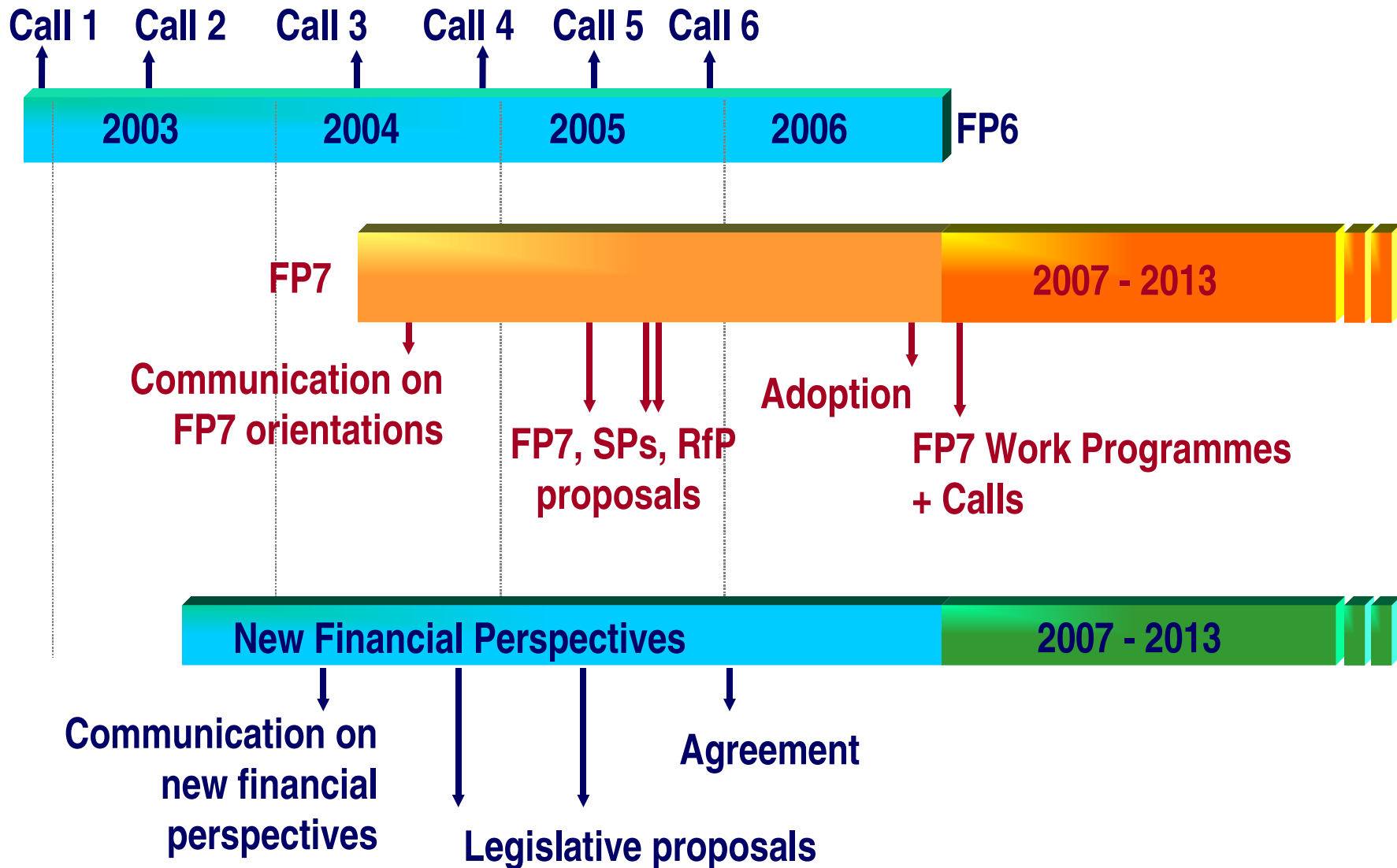
European Commission, DG INFSO

kyriakos.baxevanidis@cec.eu.int

e-Infrastructure: <http://cordis.europa.eu/ist/m/>



■ FP7 –calendar



Total: 50521 m€

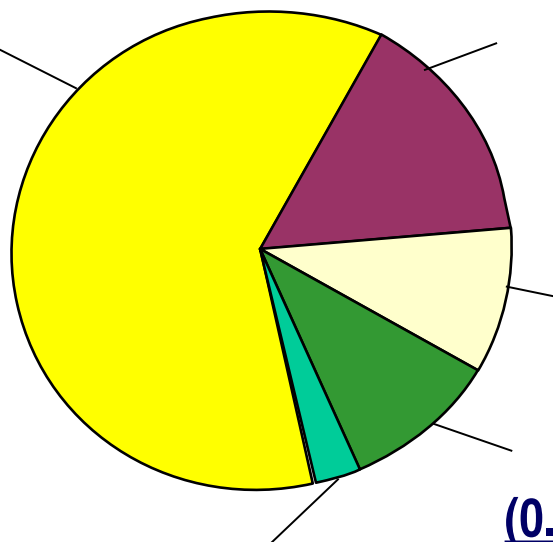
Cooperation: 32.4 b€
(9.1 b€ for ICT)

Ideas: 7.5 b€

People: 4.7 b€

Capacities: 4.2 b€
(0.62 b€ for e-Infrastructures)

JRC: 1.8 b€





CT in FP7



■ FP7 Cooperation Programme – 2007–2013

DRAFT

Total: 50521 m€

Cooperation: 32.4 b€
(9.1 b€ for ICT)

Ideas: 7.5 b€

People: 4.7 b€

Capacities: 4.2 b€
(0.62 b€ for e-Infrastructures)

1.8 b€

Is targeting key scientific and technology areas where Europe wants to have an impact and is focusing on the support to cooperation between universities, industry, research centres and public authorities across the European Union as well as with the rest of the world



■ ICT work-programme calendar

- First draft to ISTC End of August 2006
- First discussion with ISTC 20 Sept 2006
- Second discussion 18 Oct 2006
- IST 2006, Helsinki 21-23 Nov 2006
- Opinion of FP7 ICT C December 2006
- First Call(s) for proposals January 2007



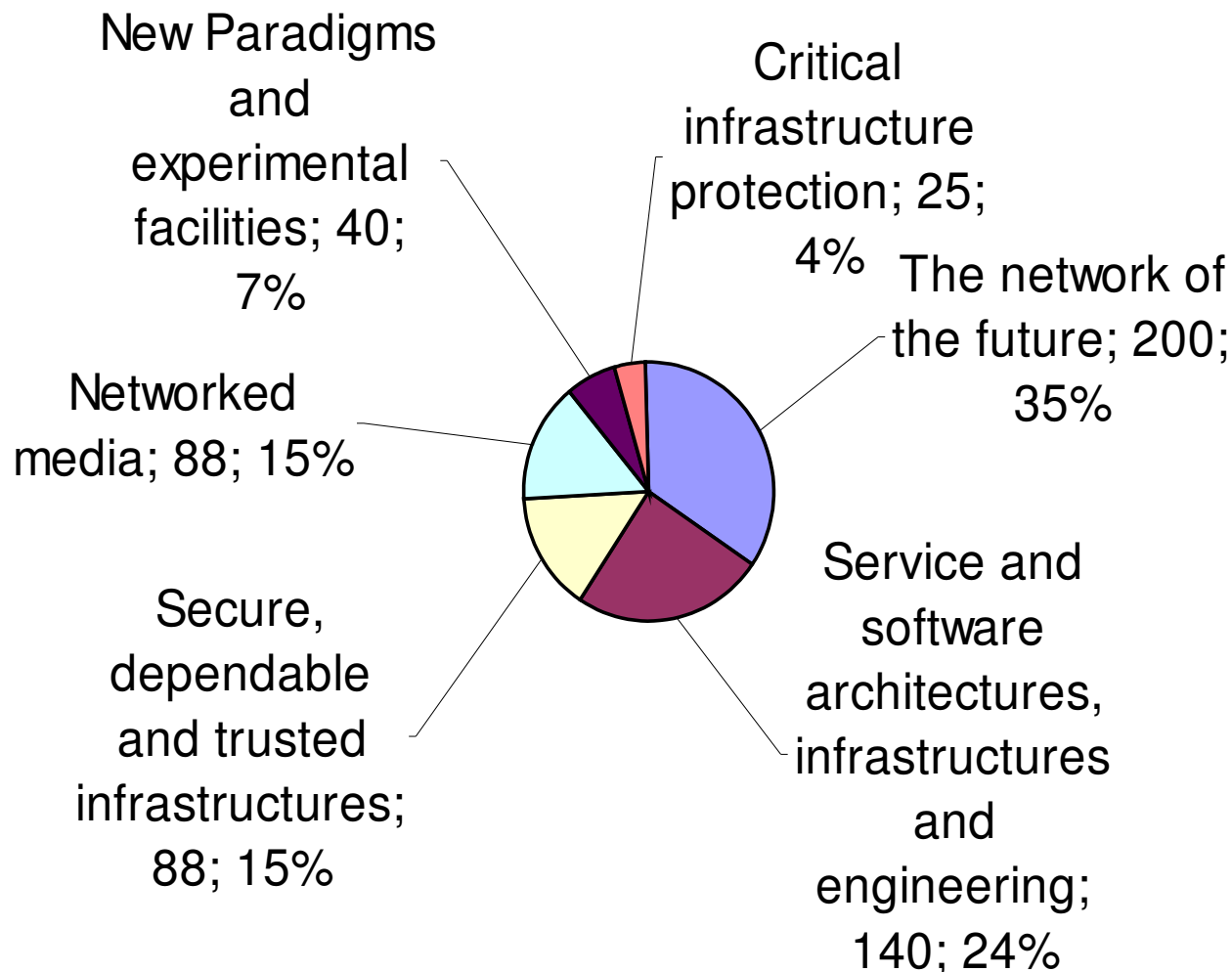
■ ICT work-programme 2007-8 (structured around seven Challenges)

Socio-economic end to end systems			
Digital libraries and content (Ch-4)	Towards sustainable & personalised healthcare (Ch-5)	ICT for mobility, environmental sustainability & energy efficiency (Ch-6)	ICT for independent living and inclusion (Ch-7)
Pervasive & trusted network & service Infrastructures (Ch-1)			
Cognitive systems, robotics and interaction (Ch-2)			
Components, Systems, Engineering (Ch-3)			

Technology roadblocks

Future and Emerging Technologies

■ Challenge-1 (Network & Service infrastructures)



■ Challenge-1 (Network & Service infrastructures)

New Paradigms
and
experimental
facilities; 40;

Critical
infrastructure
protection; 25;

4% The network of

- New disruptive networking paradigms, architectures and protocols

(to manage increased scale, complexity, mobility & requirements for security, resilience & transparency of Future Internet)

- Validation in large scale testing environments

- Interconnected test-beds

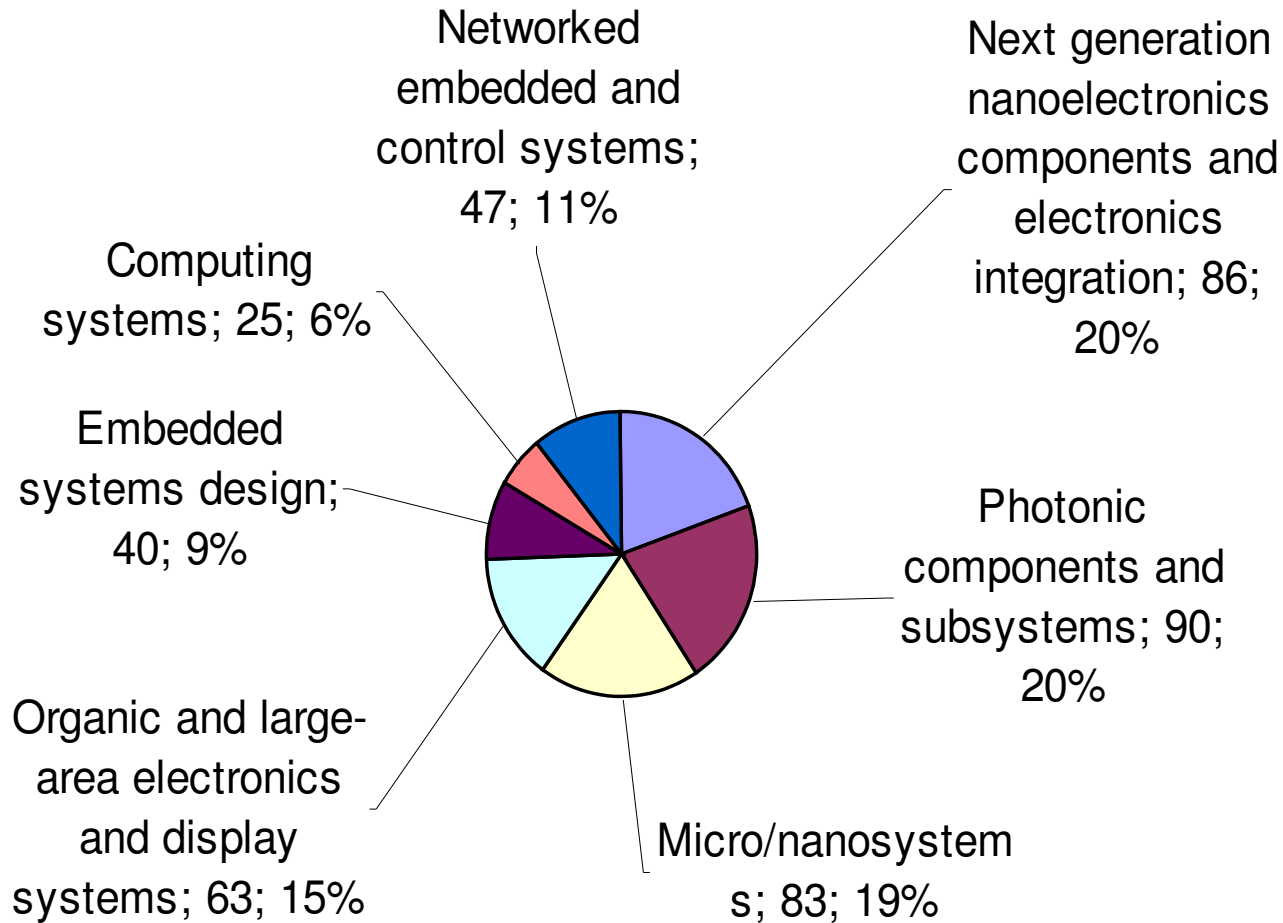
(addressing novel distributed & reconfigurable architectures; novel distributed service architectures, infrastructures & SW-platforms; and advanced embedded or overlay security, trust and identity management architectures & technologies)

■ Challenge 2 (Cognitive systems, Robotics & Interaction)

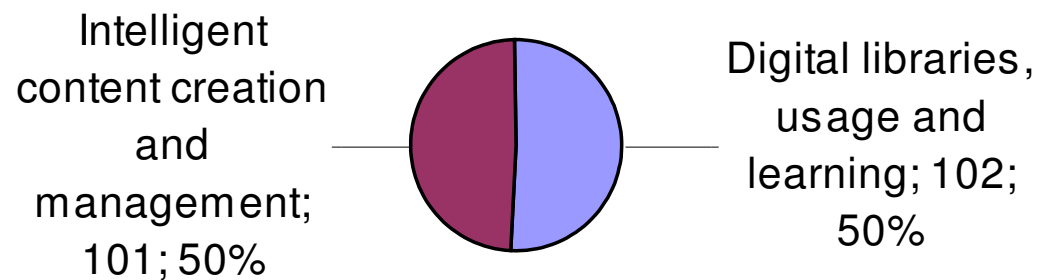
- One objective in Work-programme addressing the basic technologies and their integration into systems
- Budget: €193 m



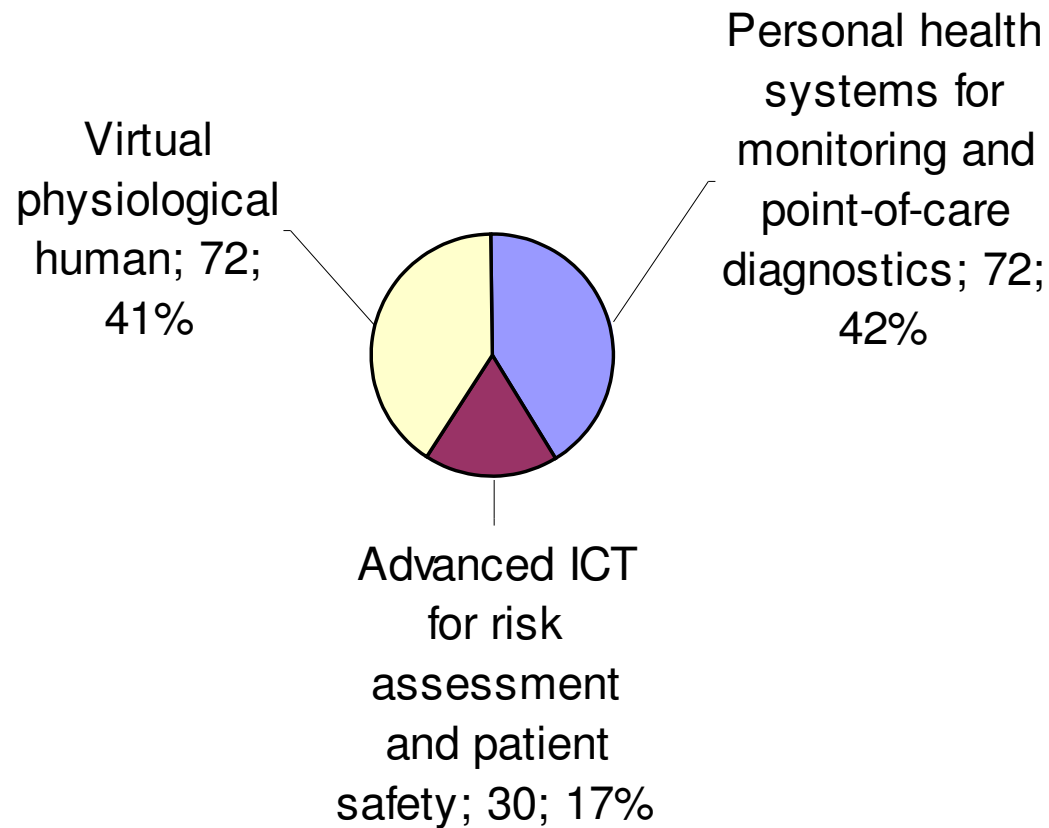
■ Challenge 3 (Components, Systems, Engineering)



■ Challenge 4 (Digital Libraries & Content)



■ Challenge-5 (Sustainable & personalised healthcare)



■ Challenge 6 (Mobility, Environmental sustainability & Energy efficiency)



■ Challenge 7 (Independent living & Inclusion)



Call 1, Open: Jan/Feb 2007 deadline Apr/may 2007	Budget
1. The network of the future	200
2. Service and software architectures, infrastructures and engineering	140
3. Secure, dependable and trusted infrastructures	88
4. Networked media	88
1. Cognitive systems, interaction, robotics	96
1. Next generation nanoelectronics components & electronics integration	86
2. Organic and large-area electronics and display systems	63
3. Embedded systems design	40
4. Computing systems	25
1. Digital libraries, usage and learning	52
1. Personal health systems for monitoring and point-of-care diagnostics	72
2. Advanced ICT for risk assessment and patient safety	30
1. ICT for the intelligent car and mobility services	57
1. ICT and ageing	30
Open scheme	
1. Nano-scale ICT devices and systems	20
2. Pervasive adaptation	20
3. Bio-ICT convergence	20
International cooperation	6
Socio-economics	6
Total	1139

Call2, open in May/June 2007. Deadline: Sept/Oct Call3, open in Dec 2007. Deadline: March 2008	Call 2	Call 3
5. New Paradigms and experimental facilities	40	
6. Critical infrastructure protection	25	
1. Cognitive systems, interaction, robotics		97
5. Photonic components and subsystems	90	
6. Micro/nanosystems	83	
7. Networked embedded and control systems	47	
1. Digital libraries, usage and learning		50
2. Intelligent content creation and management	101	
3. Virtual physiological human	72	
2. ICT for cooperative systems	48	
3. ICT for the environmental management & energy efficiency	54	
2. Accessible and inclusive ICT	43	
4. Science of complex systems for socially intelligent ICT		20
5. Embodied intelligence		20
6. ICT forever yours		20
International cooperation	6	
Total	609	207

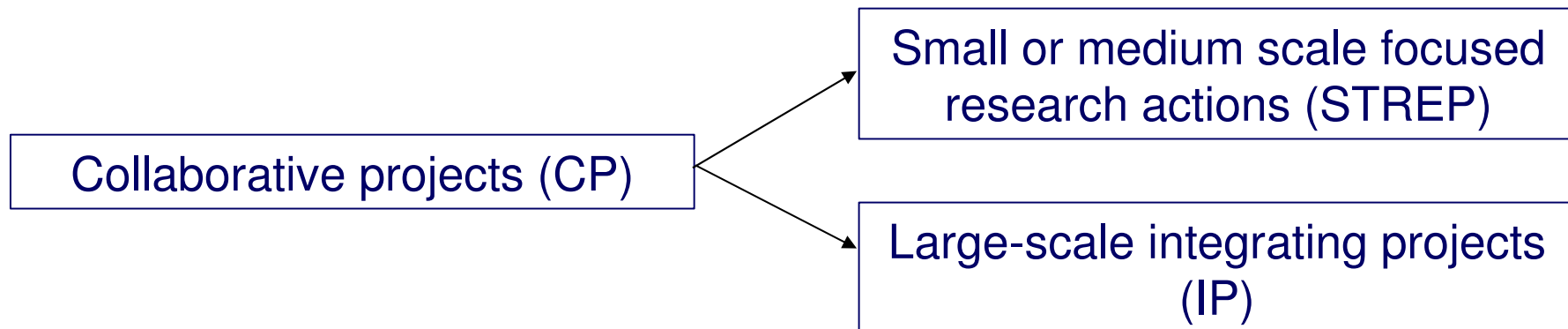
■ Funding schemes

Collaborative projects (CP)

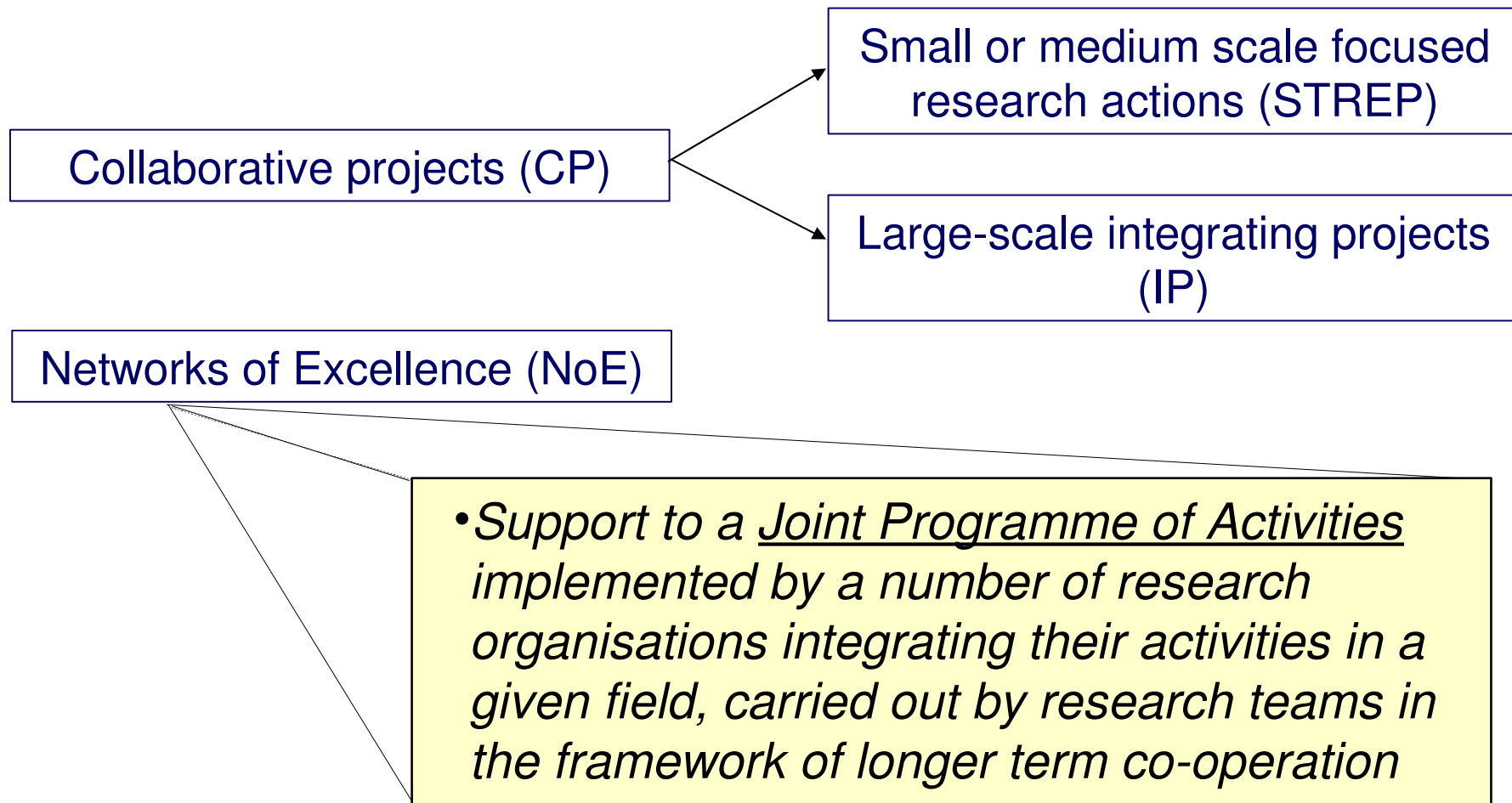
- *Support to research projects carried out by consortia with participants from different countries, aiming at developing new knowledge, new technology, products, demonstration activities or common resources for research. The size, scope and internal organisation of projects can vary from field to field and from topic to topic.*



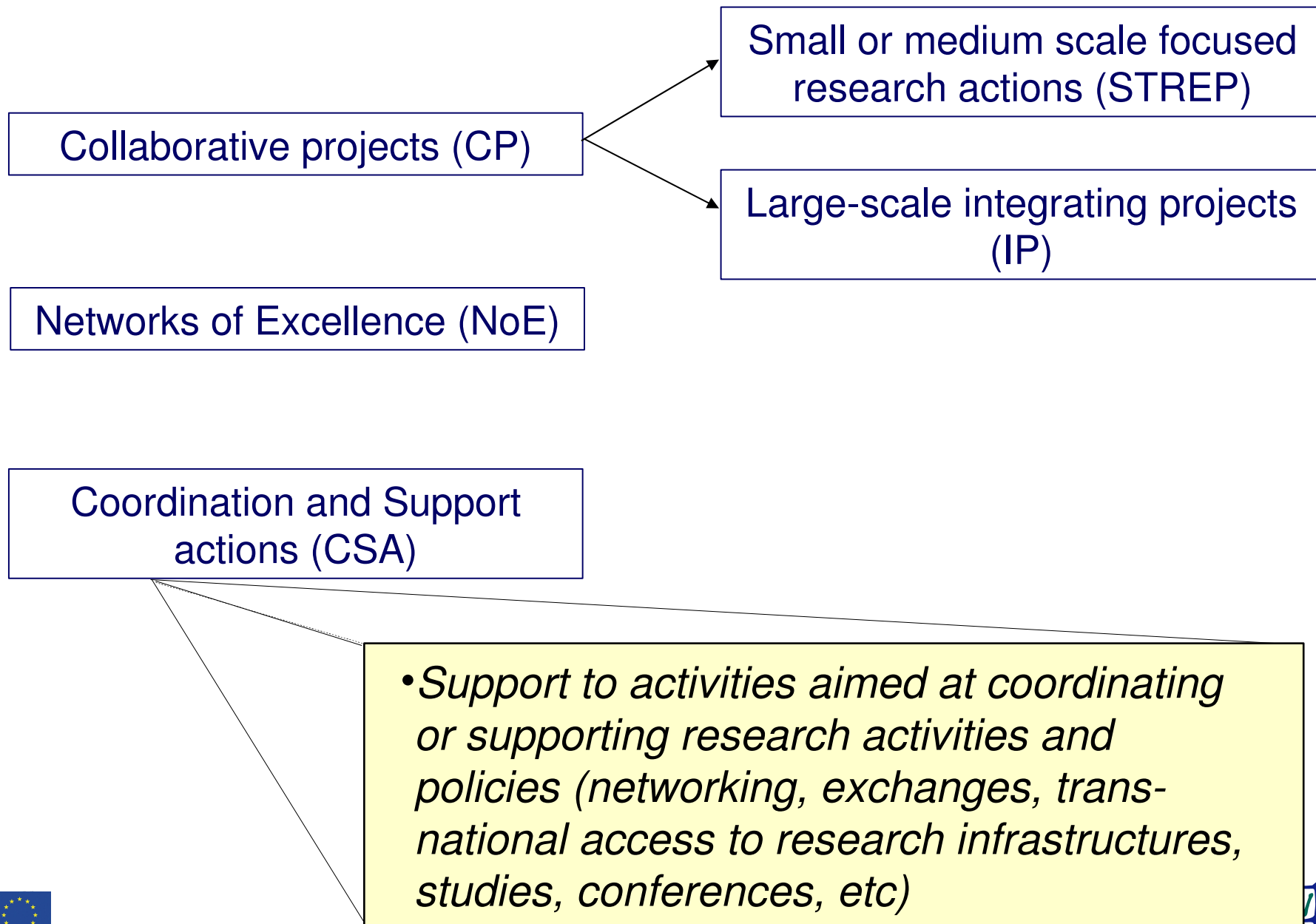
■ Funding schemes



■ Funding schemes



■ Funding schemes





e-Infrastructures in FP7



■ FP7 Capacities Programme—2007-2013



Total: 50521 m€

Cooperation: 32.4 b€
(9.1 b€ for ICT)

Ideas: 7.5 b€

*to enhance research and innovation capacity
throughout Europe*

Capacities: 4.2 b€
(0.62 b€ for e-Infrastructures)

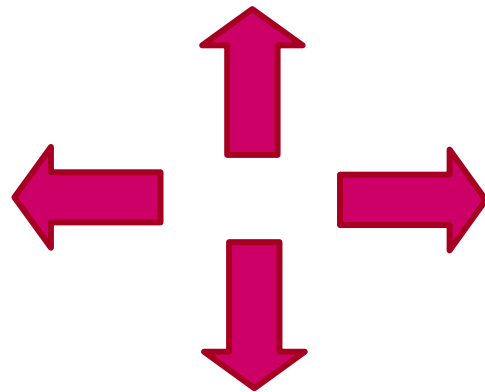
JRC: 1.8 b€



■ e-Infrastructure orientations in FP7

Support the further evolution and deployment of grid and networking infrastructures and foster the pooling of more resources in the grid; emphasize on provision of persistent, cross-disciplinary services with increased levels of interoperability, trust and security

EC & Member States
to co-fund Tier-1
(petaflop machines)
of a European HPC
Platform;
Procurement mech.



Foster a coordinated and federated approach in the domain of digital repositories to enable researchers to effectively aggregate and combine information to generate and share knowledge

Support emergence of new organisational models for service provisioning in the domain of grid and data infrastructures; foster evolution of current discipline/project based service provisioning schemes to new sustainable ones, application neutral and open to all user communities and resource providers

Support resource sharing policy initiatives (e-IRG...), International coop.

■ First-Infrastructure Calls in FP7

Year 2007

Publication: early 2007
Closure: spring 2007

Year 2008

Publication: late 2007/early 2008
Closure: spring 2008

Year 2009



1. GÉANT
2. Scientific Data Infrastructures
3. Support measures (studies, policy initiatives, international co-operation,...)

1. e-Science Grid Infrastructures
2. Scientific Digital Repositories
3. Deployment of e-Infrastructures for new Scientific Communities
5. New Research Infrastructures – Design studies
6. New Research Infrastructures – Preparatory phase
7. Support measures (studies, policy initiatives, international co-operation,...)



■ **Fiste-Infrastructure Call FP7**

Year 2007

Year 2008

Year 2009

Publication: early 2007
Closure: spring 2007

1. e-Science Grid Infrastructures
2. Scientific Digital Repositories
3. Deployment of e-Infrastructures for new Scientific Communities
5. New Research Infrastructures – Design studies
6. New Research Infrastructures – Preparatory phase
7. Support measures (studies, policy initiatives, international co-operation,...)



■ The first e-Infrastructure Call in FP7

Year 2007

Publication: early 2007
Closure: spring 2007

- Support the further evolution and deployment of grid infrastructures and foster the pooling of more resources in the grid
- Emphasize on provision of persistent, cross-disciplinary services with increased levels of interoperability, trust and security

1. e-Science Grid Infrastructures (€ 50 m)
2. Scientific Digital Repositories
3. Deployment of e-Infrastructures for new Scientific Communities
5. New Research Infrastructures – Design studies
6. New Research Infrastructures – Preparatory phase
7. Support measures (studies, policy initiatives, international co-operation,...)

■ The first e-Infrastructure Call in FP7

Year 2007

Publication: early 2007
Closure: spring 2007

- Support deployment of digital repositories for scientific communities by pooling existing resources at European level and supporting data storage, archiving, access, interpretation, interoperability, management & curation activities
- Enable scientists to effectively aggregate and combine information to generate and share knowledge, profiting from a transparent underlying data infrastructure across communities, institutions & geographic boundaries

1. e-Science Grid
2. Scientific Digital Repositories (€ 15 m)
3. Deployment of e-Infrastructures for new Scientific Communities
4. New Research Infrastructures – Design studies
5. New Research Infrastructures – Preparatory phase
6. Support measures (studies, policy initiatives, international co-operation,...)



■ The first e-Infrastructure Call FP7

Year 2007

Publication: early 2007

Closure: spring 2007

- Reinforce impact, adoption and global relevance of e-Infrastructure across various areas of science and engineering;
- Support continuous consolidation and expansion of e-Infrastructures
- Provide advanced applications and capabilities to more researchers, capturing commonalities, fostering interoperability, promoting open standards and federating approaches across disciplines

1. e-Science Grid Infrastructure
2. Scientific Digital Repositories (€ 10 m)
3. Deployment of e-Infrastructures for new Scientific Communities (€ 24 m)
5. New Research Infrastructures – Design studies
6. New Research Infrastructures – Preparatory phase
7. Support measures (studies, policy initiatives, international co-operation,...)



■ The first e-Infrastructure Call in FP7

Year 2007

Publication: early 2007

Closure: spring 2007

1. e-Science Grid Infra
2. Scientific Digital Re
3. Deployment of e-Inf
- Scientific Communi

- Support conceptual design studies for new RI (or major upgrades of existing ones) of clear European dimension and interest; such studies will help to assess technical and financial feasibility of proposed new RI
- Action should also foster emergence of new organisational models to consolidate a sustainable approach to e-Infrastructures, in particular in the domain of grids and data repositories
- New service provisioning schemes to be more neutral and open to all user communities and resource providers

5. New Research Infrastructures – Design studies (€ 8 m)
6. New Research Infrastructures – Preparatory phase
7. Support measures (studies, policy initiatives, international co-operation,...)



■ The first e-Infrastructure Call in FP7

Year 2007

Year 2008

Year 2009



Publication: early 2007
Closure: spring 2007

1. e-Science Grid Infrastructure
2. Scientific Digital Repository
3. Deployment of e-Infrastructure for Scientific Communities
5. New Research Infrastructures

- Provide catalytic and leveraging support for the preparatory phase leading to construction of new RIs (support only to ones included in ESFRI roadmap); this phase aims at bringing the project to a level of technical, legal and financial maturity required for implementation
- Work could include strategic, technical, governance/logistics, financial, legal etc activities

6. New Research Infrastructures – Preparatory phase (€ 15 m)
7. Support measures (studies, policy initiatives, international co-operation,...)



■ The ~~first~~e-Infrastructure Call in FP7

Year 2007

Year 2008

Year 2009

Publication: early 2007
Closure: spring 2007

1. e-Science Grid Infra
2. Scientific Digital Re
3. Deployment of e-Inf
- Scientific Communi
5. New Research Infra
6. New Research Infra

- In the context of building up the European Research Area, encourage coordination between National and/or regional policies & programmes in the field of RI; support policy groups such as the e-IRG
- Studies and conferences supporting European and/or international cooperation for e-Infrastructures
- International cooperation

7. Support measures (studies, policy initiatives, international co-operation,...) (€ 9 m)



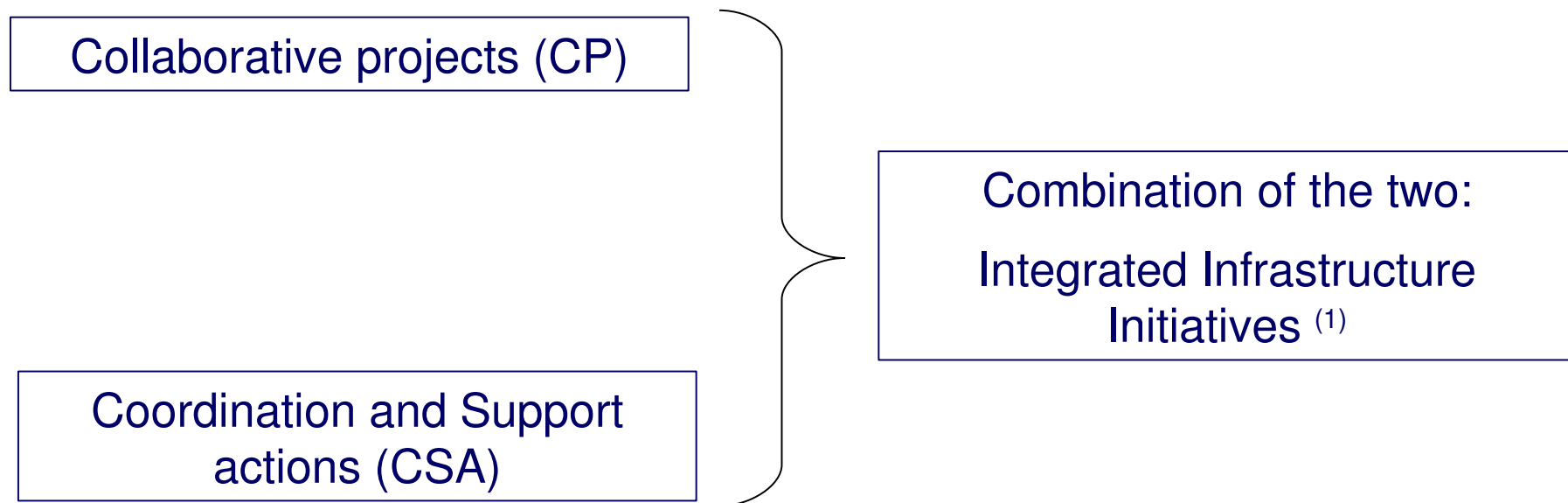
■ Funding schemes

Collaborative projects (CP)

Coordination and Support
actions (CSA)



■ Funding schemes



(1): Consisting of Networking Activities, Specific Service Activities, and Joint Research Activities (as in FP6) but with all above categories of activities mandatory in FP7-projects

■ Further information



e-Infrastructures: www.cordis.europa.eu/ist/rn/



■ Some conclusions

- Start working on proposals – first FP7 work-programmes to be soon out
- e-IRG roadmap provides main input for e-Infrastructures work-programme

Thank you for your attention !

