

"Present and Future of Networked Media collaborative R&D in Europe"

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The opinions expressed by the author are not necessarily those of the European Commission



Outline

- Future opportunities: Horizon 2020 (2014-2020)
- Networked Media now: FP7 up to Call 7
- Bridging opportunities: FP7-WP2013
- Conclusions



Europe 2020: Three interlinked priorities



- 1.) **Smart growth**: developing an economy based on knowledge and innovation



- 2.) **Sustainable growth**: promoting a more efficient, greener and more competitive economy



- 3.) **Inclusive growth**: fostering a high-employment economy delivering social and territorial cohesion



Europe 2020 Strategy

- Objectives of **smart, sustainable and inclusive growth**
 - headline targets including 3% of GDP invested in R&D
- Includes the **Digital Agenda for Europe** flagship
 - ICT research and innovation as a central pillar
- Includes the **Innovation Union** flagship
 - key conditions to make Europe attractive for research & innovation
- Includes the **Industrial Policy** flagship
 - stresses Key Enabling Technologies
- Innovation endorsed by February 2011 European Council as key to future growth and jobs



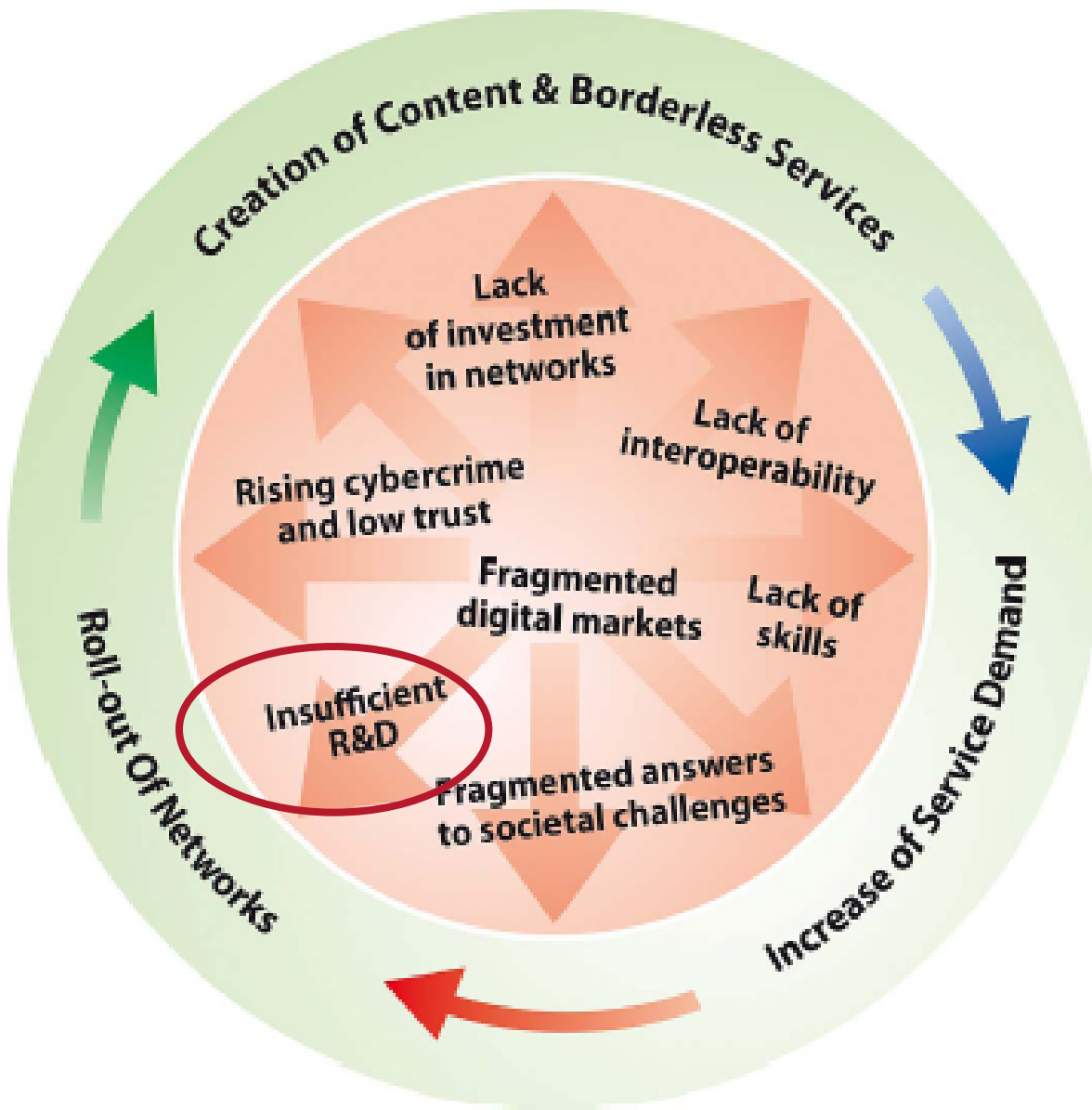
Europe 2020: Seven flagship initiatives

Smart Growth	Sustainable Growth	Inclusive Growth
Innovation <i>« Innovation Union »</i>	Climate, energy and mobility <i>« Resource efficient Europe »</i>	Employment and skills <i>« An agenda for new skills and jobs »</i>
Education <i>« Youth on the move »</i>	Competitiveness <i>« An industrial policy for the globalisation era »</i>	Fighting poverty <i>« European platform against poverty »</i>
Digital society <i>« A digital agenda for Europe »</i>		



Digital Society: Challenges

European Commission
Information Society and Media



http://ec.europa.eu/information_society/digital-agenda/index_en.htm



R&D&I in the DAE

- * Action 50: Generate **more private investment** for ICT research
- * Action 51: Reinforce the **coordination** and pooling of resources
- * Action 52: Propose measures for '**light and fast**' access to EU research funds in ICT
- * Action 53: Financially support joint ICT research **infrastructures** and innovation clusters
- * Action 54: Develop a new generation of **web-based** applications and services
- * Action 55: Member States to **double** annual public spending on ICT research and development
- * Action 56: Member States to Engage in **large-scale pilots** financed by the Competitiveness and Innovation Programme

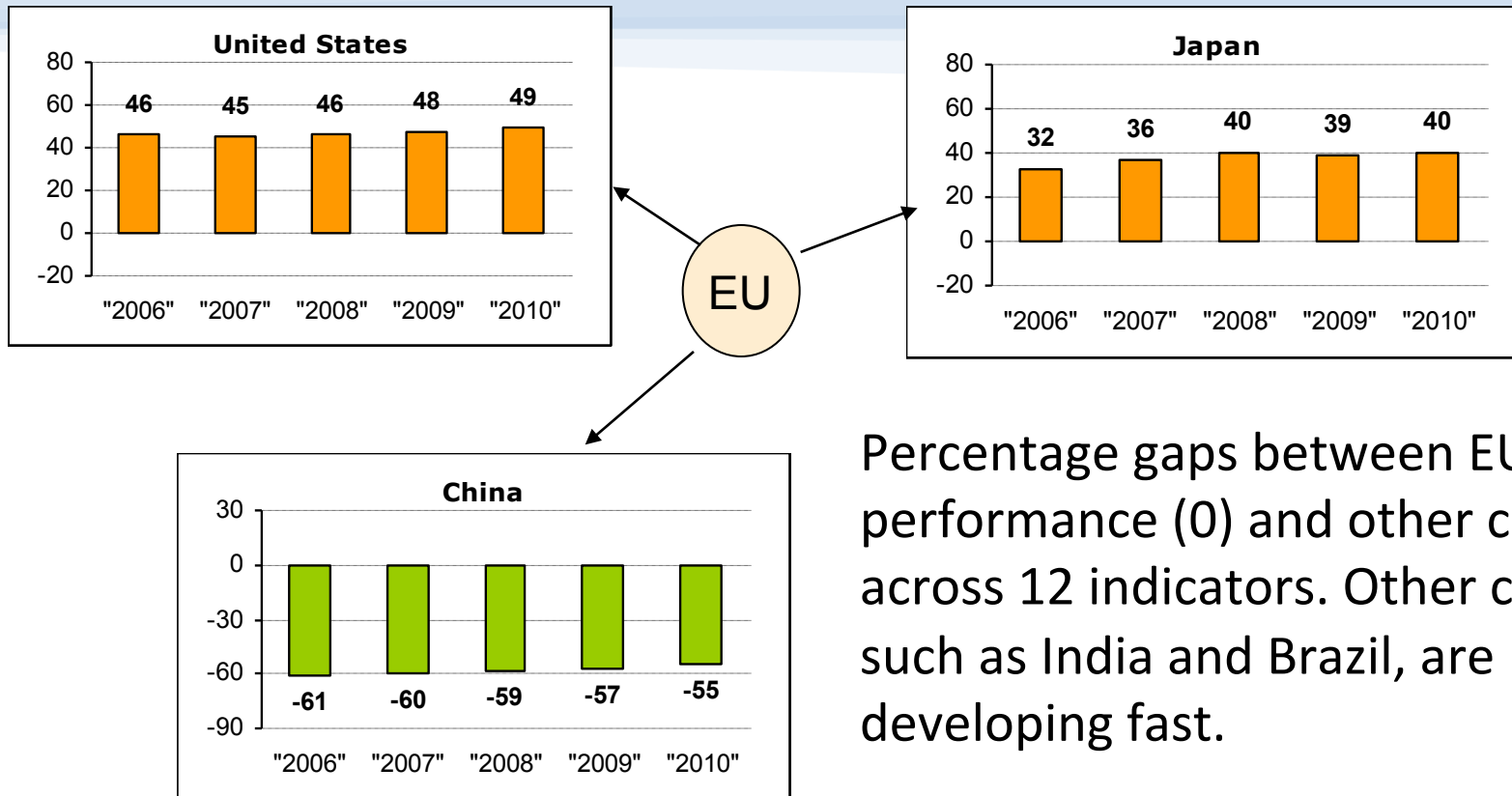


Research & Innovation objectives

- Europe needs **cutting edge research and innovation**
 - Essential to ensure **competitiveness, growth and jobs**
 - Vital to tackle pressing **societal challenges** (climate change, energy security, demographic change,...)
 - **3% of GDP** invested in R&D: headline target of Europe 2020
 - But: Europe's performance **lags behind** USA and JP, BRIC countries rapidly catching up
- **Coordinated action** needed at EU level
- **EU Budget can make the difference!**



Innovation gap with US and Japan, emerging countries catching up

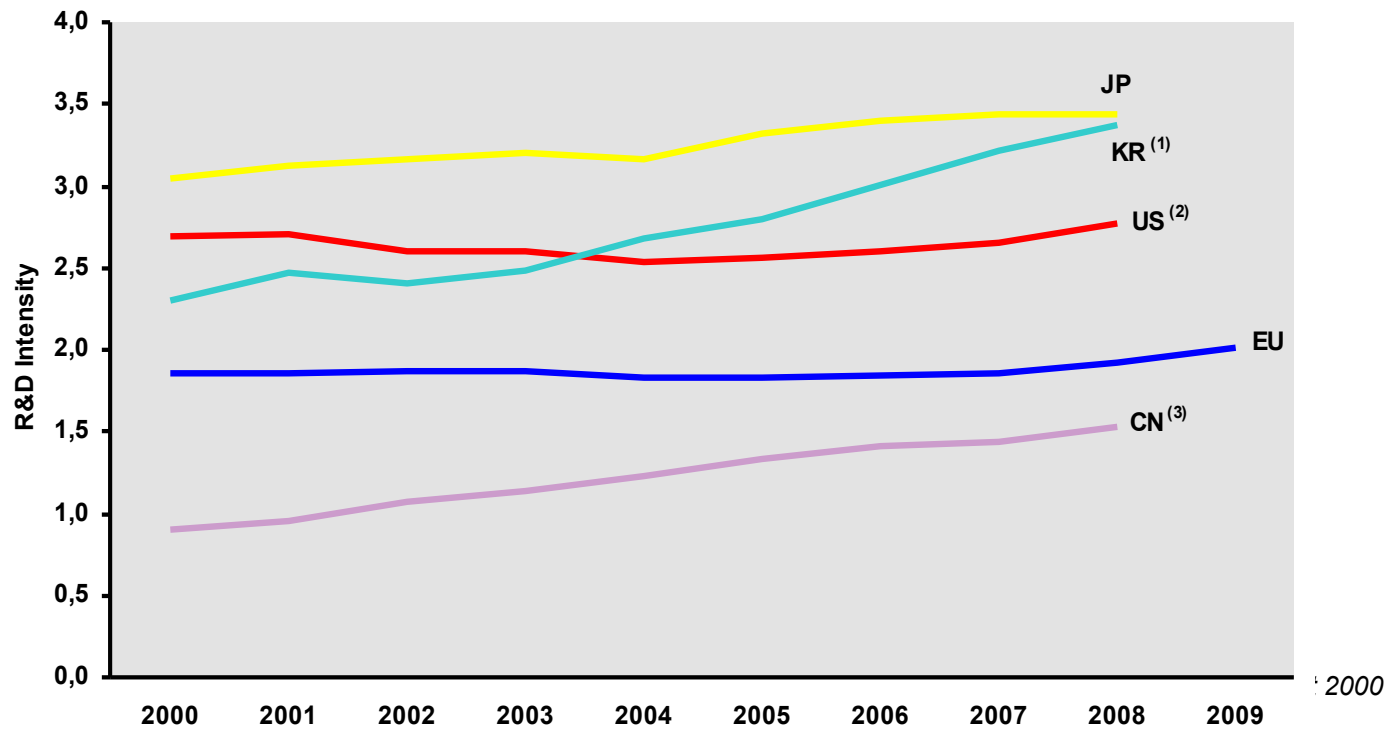


Percentage gaps between EU performance (0) and other countries across 12 indicators. Other countries, such as India and Brazil, are developing fast.

Source: Innovation Union Scoreboard

EU R&D investment is lagging behind our main competitors

Evolution of R&D Intensity, 2000-2009



Green Paper consultation outcome (based on >2000 responses)

- Strong support for **bringing research and innovation together**
- **Simplification** is a key priority for all stakeholders
- All stages in the innovation chain should be supported, with **more attention for close to the market activities** (e.g. demonstration, piloting)
- **Continuity for the successful elements** of current programmes, e.g. European Research Council, Marie Curie, collaborative research
- EU funding should be tied closely to **societal challenges** and EU policy objectives (climate change, ageing, energy security, ...)
- More **openness and flexibility** needed, **less prescriptive** calls, better use of **bottom-up instruments** (also in programme parts guided by clear policy objectives)
- Need **both curiosity-driven and agenda-driven** activities, working in tandem
- **SMEs with innovation requirements** should be able to benefit



Added value of EU R&I funding

- Cross-border **pooling** of resources to achieve **critical mass** and **diffusion of knowledge**
- Promote **competition** in research and innovation, thereby raising levels of **excellence**
- Offers **training possibilities**; enhances Europe's **international attractiveness**
- Address **pan-European policy challenges**; link to EU **market frameworks**
- **Leverages** private investments, combines public investments, **increases efficiency**

=> R&I for smart, sustainable and inclusive growth



Why a Common Strategic Framework?

- Increasing IMPACT -

- **FROM** different priorities in each programme and initiative
 - **TO common strategic priorities**, focusing on societal challenges, competitiveness and research excellence
- **FROM** gaps between the stages (R&D, demonstration, piloting, market uptake ...)
 - **TO coherent support for projects and organisations** across the innovation cycle



Why a Common Strategic Framework?

- Achieving SIMPLIFICATION

- **FROM** a large variety of funding schemes within and between programmes
 - **TO a rationalised toolkit of funding schemes** across the CSF
- **FROM** different rules in each programme and initiative
 - **TO more standardised rules** across all initiatives – which meet the different needs and with flexibility where needed
- **FROM** multiple websites, guidance documents, applications
 - **TO common entry point**, one stop shop, common IT platform



Horizon 2020 – The Framework Programme for Research and Innovation

- **Integrating the existing programmes:**
- The **7th Framework Programme (FP7)** for research, technological development and demonstration
 - €53 billion (2007-13). 4 main programmes on Ideas, Cooperation, People and Capacities.
- The **Competitiveness and Innovation Framework Programme (CIP)**
 - €3.6 billion (2007-13). 3 programmes on enterprise & innovation, intelligent energy, and ICT policy support.
- The **European Institute for Innovation and Technology (EIT)**
 - Autonomous EU body bringing together higher education, research and business to stimulate innovation in Knowledge and Innovation Communities. EU budget contribution of €309 million (2007-13)
- **And strengthening complementarities with the Structural Funds**
 - €86 billion allocated (2007-13) to R&D and innovation, entrepreneurship ICT and human capital development



Horizon 2020 – Key features

- **Clear set of objectives** based on Europe 2020 and Innovation Union
- Integrating research and innovation in a **seamless programme**
- Focus on overall policy priorities – **challenge based approach**
- Programme **structured by objectives** (not topics)
- **Common toolkit** of funding schemes



Simplification

- **Single set of rules** for eligibility, accounting, reporting, auditing
- **Simplified cost-reimbursement** approach
- Broader acceptance of **usual accounting practice**, greater use of **lump sums** and **flat rates**
- **Shorter negotiation** and **selection** phases
- **Unique IT portal**, common support structures, guidance
- **External management:** learning from experience with executive agencies, public private partnerships, public to public partnerships, financial instruments

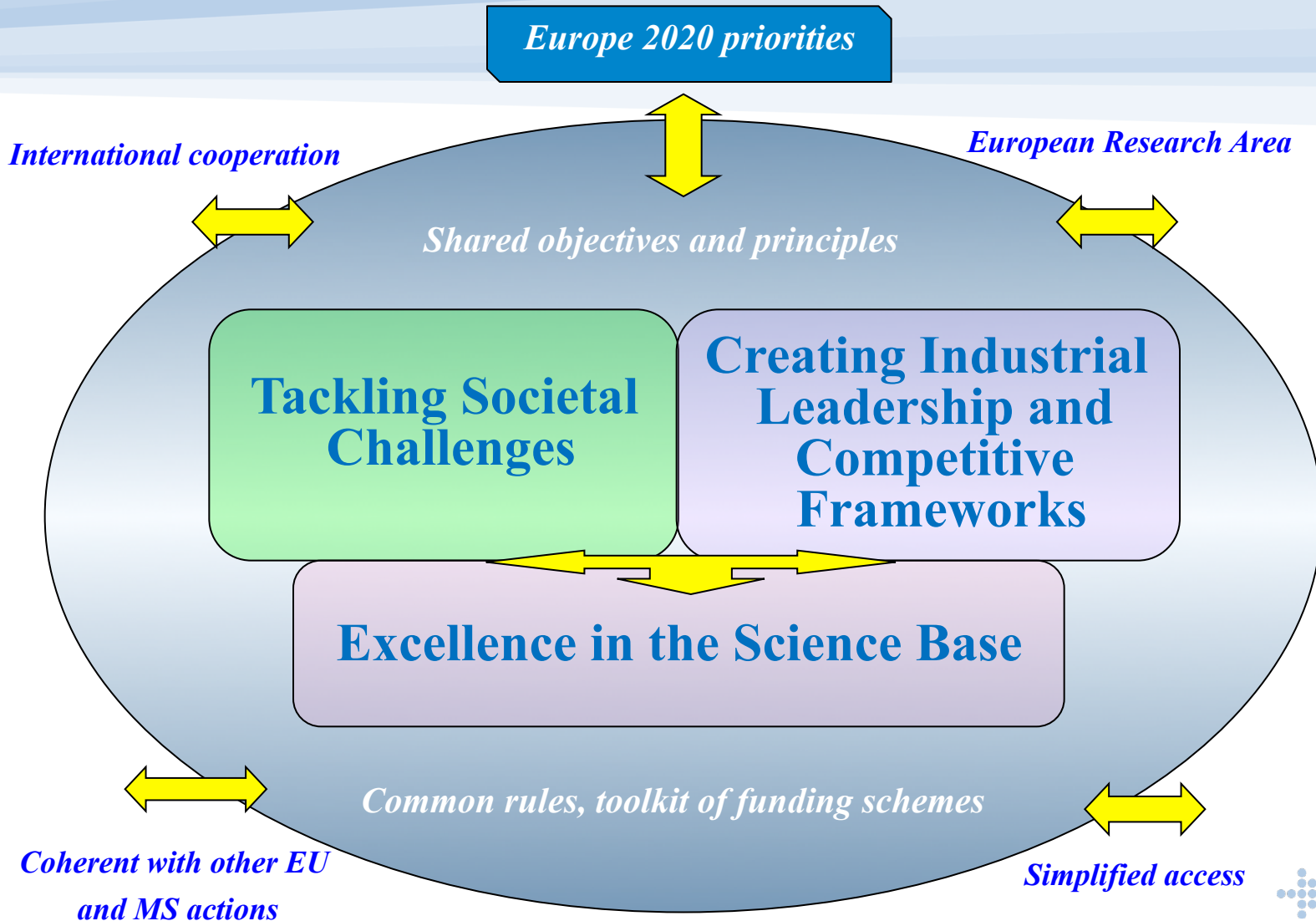


Funding schemes

- **Research and Innovation Grant**
 - Projects of all sizes and types covering the full range of research and innovation activities
- **Training and Mobility Grant**
- **Programme co-fund Grant**
 - To bodies managing non-Union R&I programmes
- **Coordination and Support Grant**
- **Debt finance and equity investments**
- **Prizes**
 - Rewards for past achievements or inducement Prizes for achievement of a pre-specified target
- **Procurement – two types**
 - Public Pre-commercial procurement (of R&D services involving risk-benefit sharing)
 - Public Procurement of innovative solutions (public authorities procure innovative goods and services)



Horizon 2020 – Objectives and structure



Tackling Societal Challenges

- Health, demographic change and wellbeing
- Food security and the bio-based economy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Supply of raw materials
- Resource efficiency and climate action
- Inclusive, innovative and secure societies

EIT and JRC will contribute
to addressing these challenges



Industrial leadership and competitive frameworks

- Leadership in enabling and industrial technologies:
 - **Information and Communication Technologies**
 - Nanotechnologies, advanced materials, advanced manufacturing and processing
 - Biotechnology
 - Space
- Innovation in SMEs
- Access to risk finance
- Grant to the European Institute for Innovation and Technology (EIT)
- Direct actions of the Joint Research Center



Enabling and industrial technologies

- Strategic, **technology focused** approach
 - With potential applications in many sectors/ challenges
- Differentiated from:
 - *Societal challenges*: **demand led**, combining different technologies/ solutions
 - *European Research Council*: **Bottom up**



Approach for SMEs

- **Light and fast SME instrument** will cover:
 - Pilot/feasibility stage
 - R&D and demonstration
 - Follow up support for commercialisation
- **Stand alone SME activities** (in the Industrial Leadership block)
 - Continuation of “**Eurostars**” Joint Programme
 - Accompanying measures (networking, training, innovation support...)
- **Financial instruments**



Excellence in the Science Base

- Frontier research
 - European Research Council - ERC
- Future and Emerging Technologies
 - FET-Open, Proactive, Flagships
- Skills and career development
 - Marie Curie
- Research infrastructures
 - networking, access, development (including eInfrastructures)



Horizon 2020 in the MFF Multiannual Financial Framework

MFF Translates into financial terms the Union's political priorities for the period 2014-2020.

- **MFF Commission proposal** adopted on 29 June 2011
- Proposed amount: **EUR 80 billion** in constant 2011 prices (EUR 90 billion in current prices)
 - **46% increase** compared to current period (2007-2013)
 - Share of research and innovation in EU Budget increases to **8.5%** in 2020

For decision by European Council, European Parliament

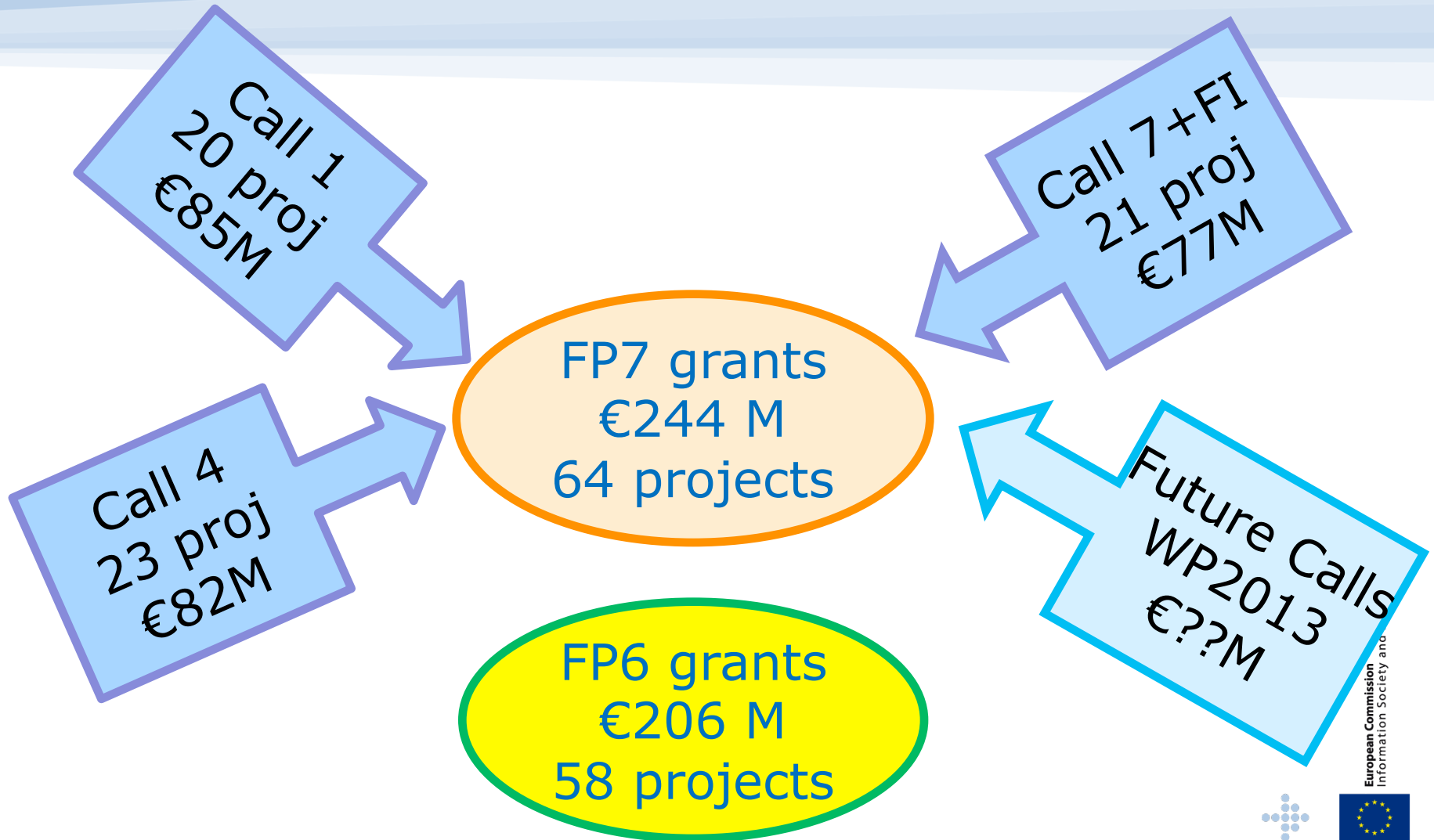


Timeline

- May 2010 – Digital Agenda for Europe [Communication](#)
- June 2010 - [Europe 2020 Strategy](#)
- October 2010 - [Innovation Union](#) flagship initiative
- November 2010 - Interim [evaluation](#) of FP7
- February 2011 - Commission [response](#) to interim evaluation of FP7
- February 2011 - Publication [Green Paper](#) 'Towards a Common Strategic Framework'
- June 2011 - Presentation of the Multiannual Financial Framework
- July 2011 - Horizon 2020 thematic [workshops](#)
- 30 November 2011 – proposed date for adoption by the European Commission of the draft legislative proposal for Horizon 2020
- 5 December – [1st Innovation Convention](#)
- 6 December – Presentation of Horizon 2020 to the Competitiveness Council
- Legislative decisions on Horizon 2020 by the Council and European Parliament (2012-13): during 2013
- Horizon 2020 (from 1st January 2014)



Networked Media in FP6/FP7



Clustering: positioning of current projects

3D Immersive Interactive Media

Media Search

New cross-cluster activities

social media

Connected TV

2020-3D MEDIA
3D VIVANT
BEAMING
CNG
DIOMEDES
FINE
MUSCADE
SKYMEDIA

SCENE
RE@CT
GAMEArch

TA2

VENTURY
REVERIE

3DTVS

VIRTUAL LIFE
PETAMEDIA
CHORUS+
GLOCAL
I-SEARCH
TOSCA-MP
MIRES

inEVENT
CUBRIK
SocialSensor
SMART

FASCINATE
3DLIFE

ROMEO

SA EMC2

SMARD

P2p-NEXT
COAST
COMET

ALICANTE
ENVISION
FI-CONTENT

OCEAN
OPTIBAND
SARACEN

CONCERTO

LINKED TV

HBB-NEXT
VCONNECT

Future Media Networks



Future Internet Assembly

Network
Architecture and
Mobility

Internet of “Things”

Content creation and
delivery

Services
Architectures

FIRE Future Internet
Research &
Experimentation

Trust, Security,
Privacy

Future Internet
Public Private
Partnership

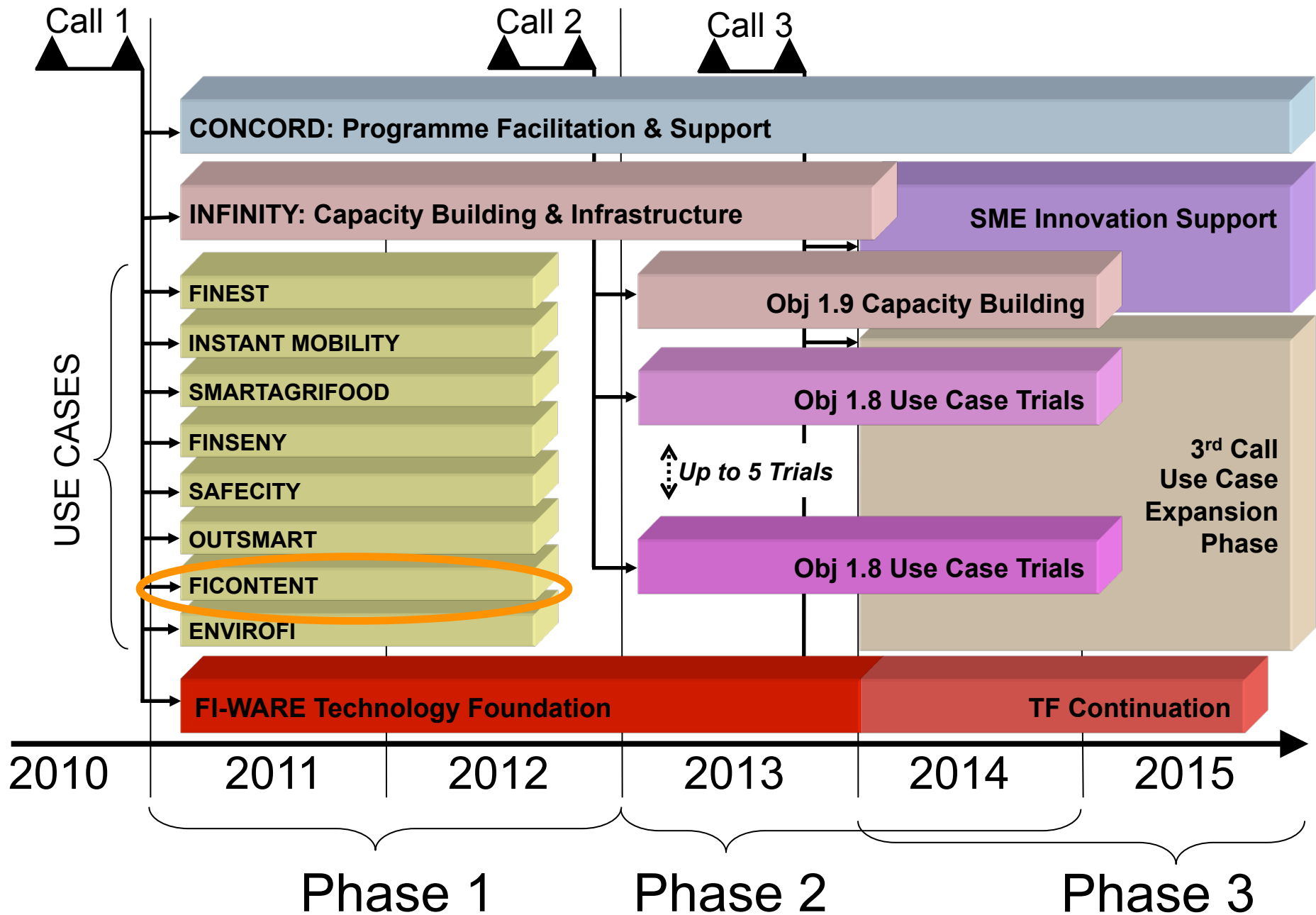
- **134 projects**
- **770 “FIA” organisations** from industry, academia and users working in several cross-sector fields

Future Internet Assembly

- Research Road-mapping
- Pre-standardisation
- International collaboration
- FI Architecture
- Management - Mana
- Linked open data
- FI for Enterprises
- Real World Internet - IoT
- Future Content Networks
- FIA Book, results, impact
- Services, FISE
- Experiments, FIRE
- Trust, Security

Main Networked Media contribution:
Content-centric networks & Media Search





Open ICT Calls

Call Identifier	Call Title	Publication Date	Deadline
FP7-ICT-2011-C	FET Open	2010-07-20	2013-03-12
FP7-ICT-2011-8	ICT Call 8	2011-07-20	2012-01-17
FP7-2012-ICT-GC	"ICT for Green Cars"-2012	2011-07-20	2011-12-01
FP7-2012-NMP-ENV-ENERGY-ICT-EeB	"Energy-efficient Buildings"-2012	2011-07-20	2011-12-01
FP7-2012-NMP-ICT-FoF	"Factories of the Future"-2012	2011-07-20	2011-12-01



Networked Media in WP2013?

- Focus on topics to help bridging to H2020
- Possible topics
 - Multimedia social networking (Social Media) in mobile environments
 - Cloud computing (Media in the Cloud) solutions applied to
 - multimedia search
 - end-to-end immersive interactive media
 - media delivery platforms
 - ...



Getting ready for H2020

- Consultation and stakeholders' inputs:
 - Green paper consultation
 - Workshops: Vision 2020
 - NEM ETP Position Paper on Future Research Directions: Opportunities for an Innovative Europe
- Main emerging issues:
 - **How to articulate R&D and Innovation**
 - New generation of **web-based applications and services**: the silver bullet of Networked Media?
 - Innovation potential of
 - Immersive and personalised media
 - collaborative (**Social**-Networking **Media**-Sharing)
 - Pervasive media (any: content, place, time, device)
 - Novel solutions for natural human-machine interface

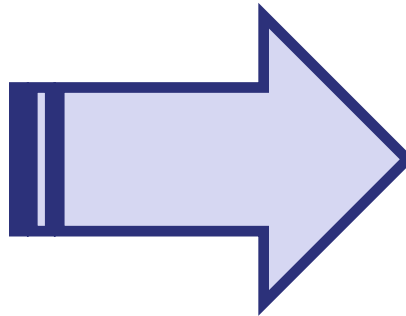
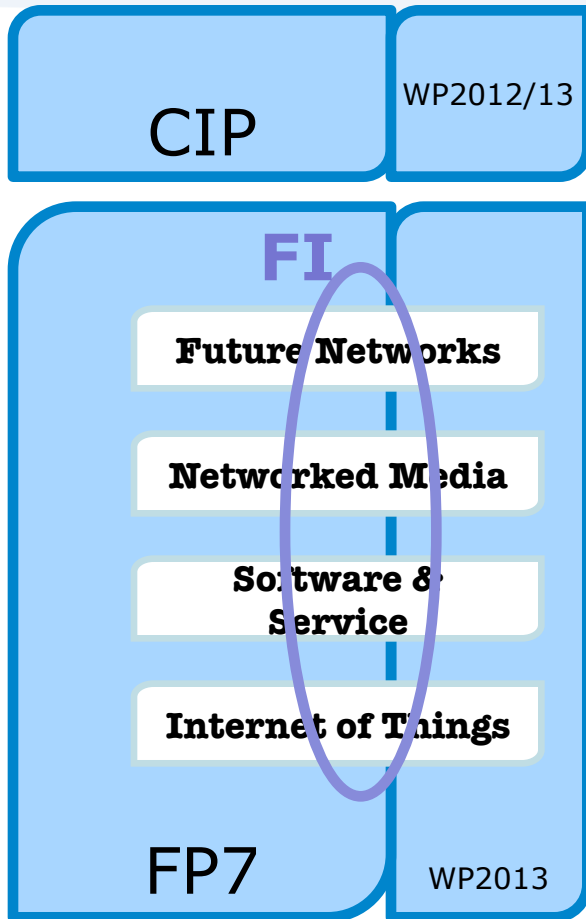


Long term policy/usage trends

- Social media will become a common feature of all future web-based applications and services
 - Social TV (connected TV + social networks)
- Cloud computing combined with pervasive BB access will underpin future web-based applications and services
- Internet will continue to be the prime innovation engine
- A Digital Economy Strategy is needed to strengthen the Digital Single Market
 - Network access & connectivity
 - Media creation, transport and delivery (e.g. media cloud)
 - Content ownership
 - Trust and security



From FP7 to H2020 Challenge 1 perspective



**Thanks so much for your
attention**

