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

Bartolomé Arroyo-Fernández
European Commission, Brussels

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

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

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**

- **EU**
- **US** (2)
- **JP**
- **KR** (1)
- **CN** (3)

**Evolution of World R&D expenditure in real terms, PPS € at 2000 prices and exchange rates, 1995-2008**
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
  - 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
- Creating Industrial Leadership and Competitive Frameworks
- Excellence in the Science Base

- Shared objectives and principles
- Europe 2020 priorities
- European Research Area
- International cooperation

- Common rules, toolkit of funding schemes
- Coherent with other EU and MS actions
- Simplified access
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
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
- Horizon 2020 (from 1st January 2014)
Networked Media in FP6/FP7

Call 1
20 proj
€85M

Call 4
23 proj
€82M

Future Calls
WP2013
€??M

Call 7+FI
21 proj
€77M

FP7 grants
€244 M
64 projects

FP6 grants
€206 M
58 projects
Clustering: positioning of current projects

3D Immersive Interactive Media

New cross-cluster activities

3D Immersive Interactive Media

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

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

3DTVS

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

SMARD

P2p-NEXT
COAST
COMET

HBB-NEXT
VCONNECT

Future Media Networks

social media

Connected TV

social media

Future Media Networks

New cross-cluster activities

3D Immersive Interactive Media

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SMARD

P2p-NEXT
COAST
COMET

HBB-NEXT
VCONNECT

Future Media Networks

social media

Connected TV

social media

Future Media Networks
Future Internet Assembly

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

Main Networked Media contribution:
Content-centric networks & Media Search
<table>
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<tr>
<th>Call Identifier</th>
<th>Call Title</th>
<th>Publication Date</th>
<th>Deadline</th>
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<td>&quot;ICT for Green Cars&quot;-2012</td>
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<td>2011-12-01</td>
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<td>FP7-2012-NMP-ICT-FoF</td>
<td>&quot;Factories of the Future&quot;-2012</td>
<td>2011-07-20</td>
<td>2011-12-01</td>
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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

CIP

WP2012/13

FP7

WP2013

Future Networks

Networked Media

Software & Service

Internet of Things

(LEITs)
Leadership in Industrial & enabling technologies

Enabling technologies for societal challenges

Horizon 2020
Thanks so much for your attention