Horizon 2020 & Smart Specialisation

2014-2020

Ciaran Dearle

Unit C/5 (Regional Dimension of Innovation)
DG Research & Innovation

Challenges for Europe

Europe faces:

- **Lack of growth, bleak economic climate;**
- **Increasing imbalances across the continent;**
- **Declining public confidence and high social costs of adjustment;**

Europe needs to:

- **Deliver stability in short-term and a long-term vision of a more integrated Europe**
- **Implement its Europe 2020 Strategy (2007-2014) setting out Flagship Initiatives (e.g. Innovation Union)**

Fighting the crisis & reviving growth

1. Sound public finances

- Public deficits continue to shrink
- Stepping-up efforts to protect pro-growth public spending in consolidation processes.

2. Structural reforms

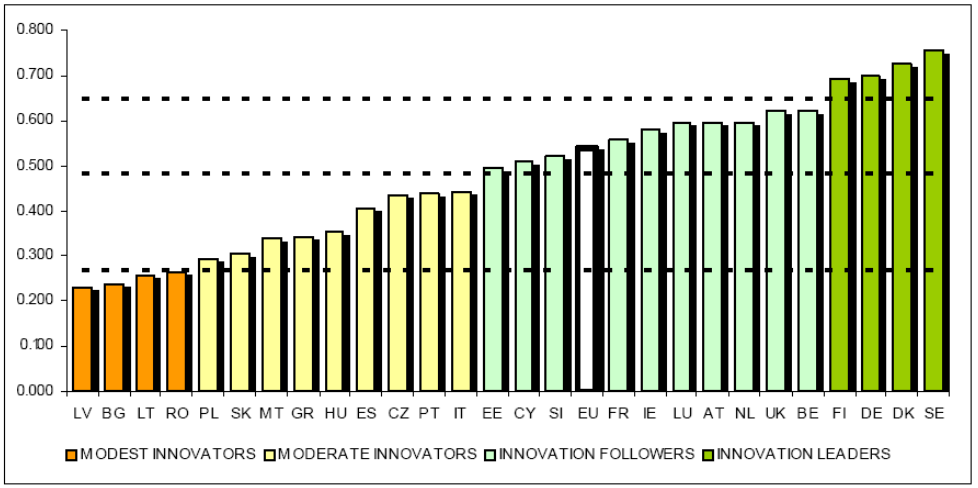
- Restoring competitiveness of MS –> country-specific recommendations;
- Reaping synergies from the world's largest Single Market.

3. Smart investment

- Pro-growth EU budget;
- Re-allocating Structural Funds to fight youth unemployment and frontload growth.

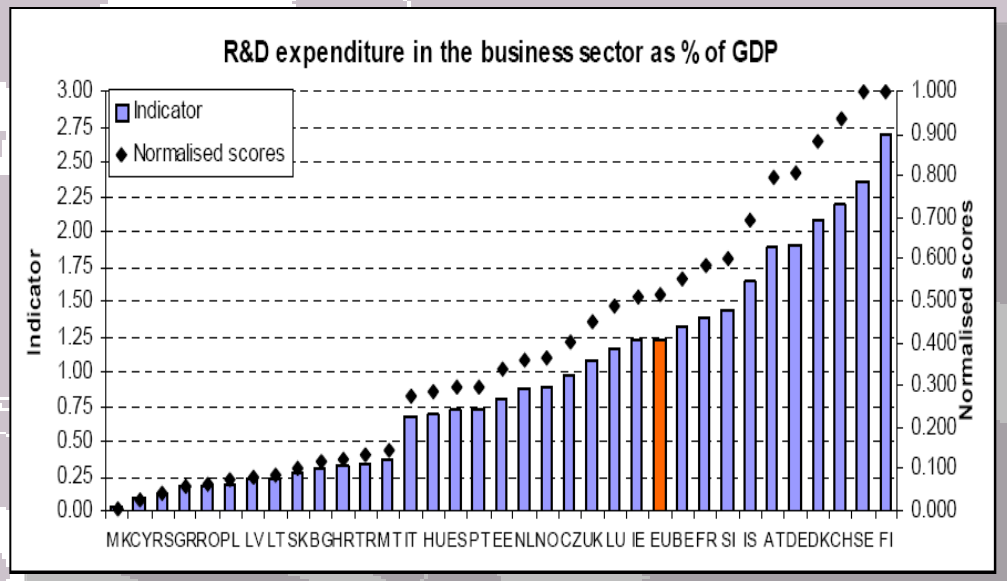
Innovation performance

FIGURE 2: EU MEMBER STATES' INNOVATION PERFORMANCE

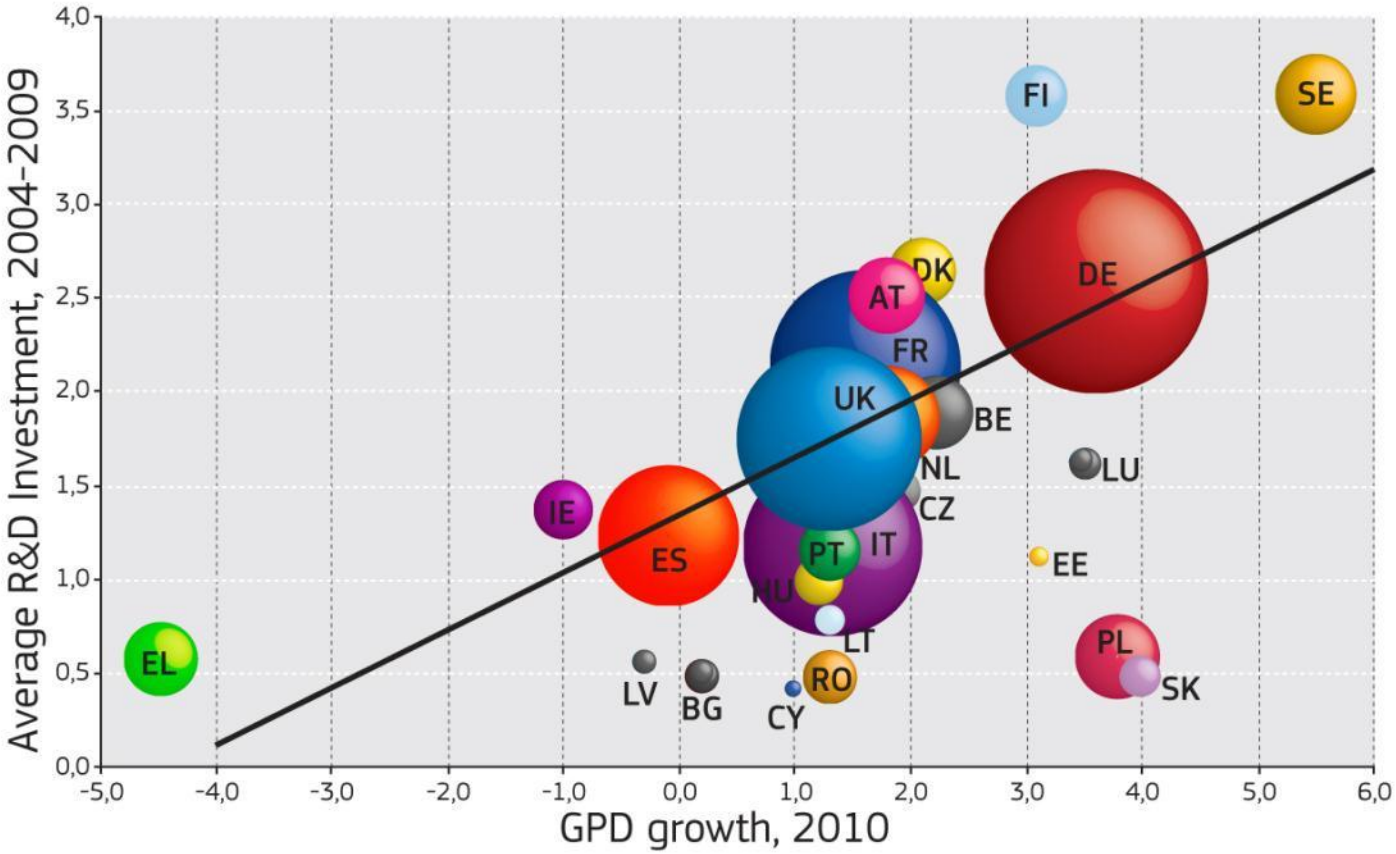


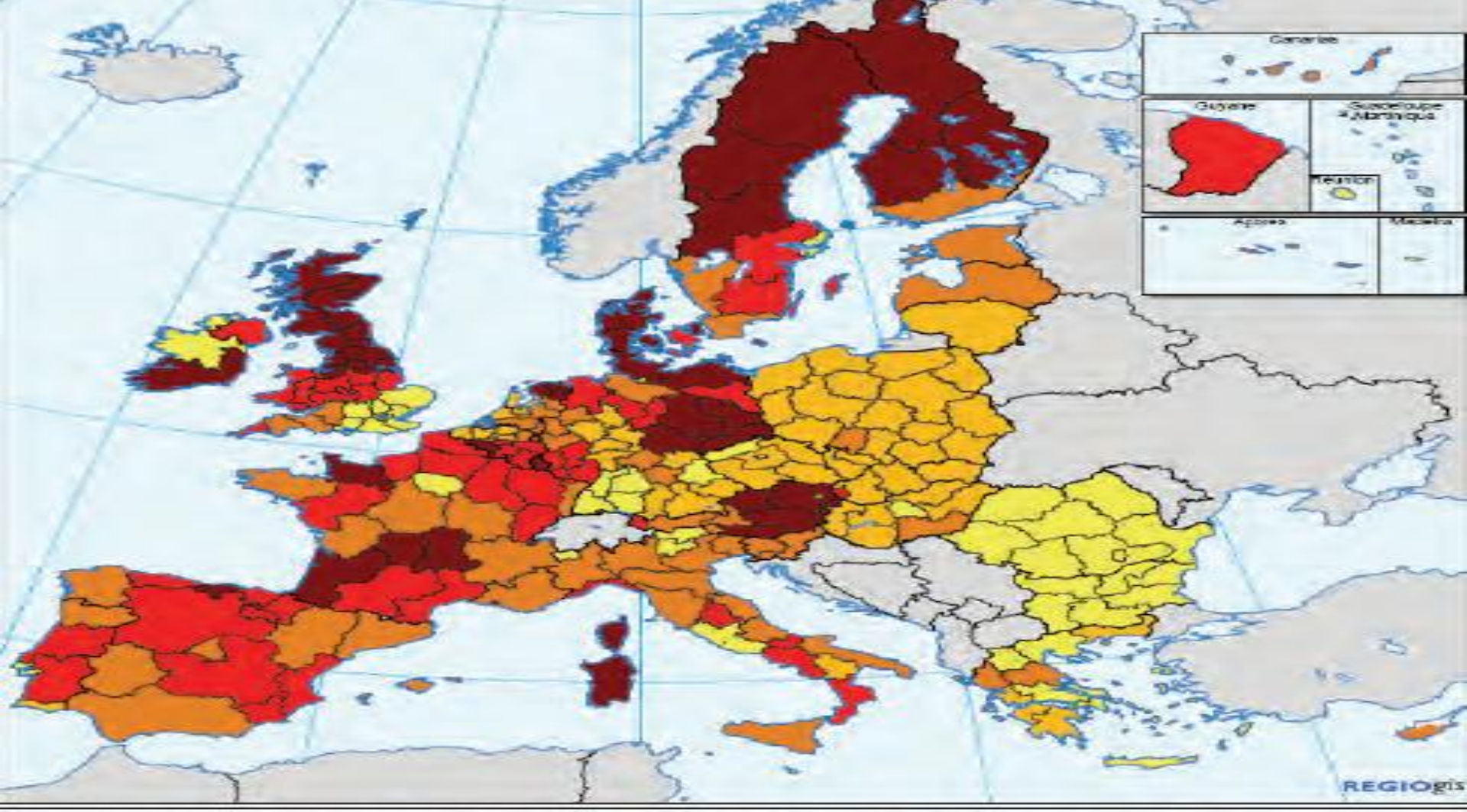
Note: Average performance is measured using a composite indicator building on data for 24 indicators going from a lowest possible performance of 0 to a maximum possible performance of 1. Average performance in 2011 reflects performance in 2009/2010 due to a lag in data availability.

R&D expenditure in the business sector as % of GDP



R&D investment: fuel for the economy





Planned investments of Cohesion Policy in RTD, innovation, enterprise environment, 2007-2013

% of total funding

- <19.2
- 19.2 - 21.6
- 21.6 - 27.6
- 27.6 - 34.2
- > 34.2

EU27 = 23.0
Funding for RTD, innovation and enterprise amounts to some €79 billion
Source: DG REGIO

0 500 km

Source: IU Competitiveness Report 2011, Atlas

Innovation Union

- **Creating a Single Innovation Market by setting the right conditions for investment in R&I:**

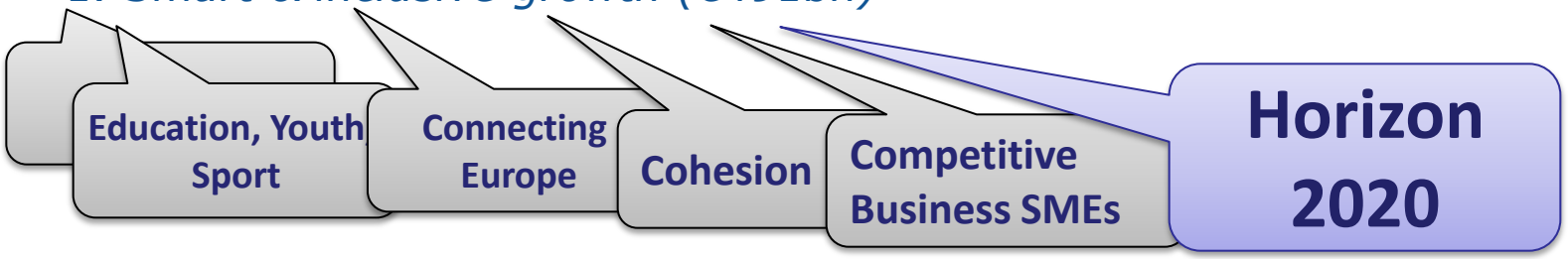
  34 commitments, including:
  - *Unitary patent – cutting cost of patents by up to 80%;*
  - *Standards – modernising and cutting time-to-standard by half;*
  - *Public procurement - buying innovation by public sector made easier;*
  - *Policies for researchers to reside in Europe;*
  - *Regulatory framework screening;*
  - *A European passport for venture capital funds;*
- **EU committed to support R&I investment:**
  - *Horizon 2020 & Structural Funds proposals;*
  - *Squeezing the gap between ideas and market and frontloading growth: 2012 and 2013 FP 7 Work Programmes.*

Positive outlook: *Top R&D investing EU businesses expect their investments in R&D to grow by an average of 4% annually over the period 2012 to 2014*

Multiannual Financial Framework 2014-2020
Commission's proposals June 2011

Key challenge: stabilise the financial and economic system while taking measures to create economic opportunities

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

Horizon 2020

Research and Innovation

What is Horizon 2020

- **Commission proposal for a 80 billion euro research and innovation funding programme (2014-2020)**
- **A core part of Europe 2020, Innovation Union & European Research Area:**
  - **Responding to the economic crisis** to invest in future jobs and growth
  - **Addressing people's 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*
- **Coupling research to 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)

European Commission

Three priorities:

Excellent science (€24.5 billion)

Industrial leadership (€17.9 billion)

Societal challenges (€31.7 billion)

Research and Innovation

Priority 1. Excellent science

Why:

- World class science is the foundation of tomorrow's well-being

- Europe needs to develop, attract and retain research talent

- Researchers need access to the best infrastructures

European Research Council *Frontier research by the best individual teams*	13 268
Future and Emerging Technologies *Collaborative research to open new fields of innovation*	3 100
Marie Curie actions* *Opportunities for training and career development*	5 752
Research infrastructures (including e-infrastructure) *Ensuring access to world-class facilities*	2 478

Priority 2. Industrial leadership

Why:

- Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin and emerging sectors

Leadership in enabling and industrial technologies *{ICT, nanotechnologies, materials, biotechnology, manufacturing, space)*	13 781
Access to risk finance *Leveraging private finance and venture capital for research and innovation*	3 538
Innovation in SMEs *Fostering all forms of innovation in all types ofSMEs*	619

- Europe needs to attract more private investment in research and innovation

- Europe needs more innovative SMEs to create growth and jobs

Priority 3. Societal challenges

Why:

- Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport etc) cannot be achieved without innovation

- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities

Health, demographic change and wellbeing	8 033
Food security, sustainable agriculture, marine and maritime research & the bioeconomy	4152
Secure, clean and efficient energy*	5 782
Smart, green and integrated transport	6 802
Climate action, resource efficiency and raw materials	3 160
Inclusive, innovative and secure societies	3819

- Promising solutions need to be tested, demonstrated and scaled up

Simplification

- **Single set of** simpler and more coherent participation **rules**
- New **balance between trust and control**
- Moving from several **funding rates** for different beneficiaries and activities to just two
- Replacing the four methods to calculate overhead or «indirect costs» with a **single flat rate**
- Major simplification under the **forthcoming financial regulation**
- **Successful applicants to get working more quickly**: reduction of average time to grant

Specific measures in Horizon 2020 to close the innovation divide

- ERA (European Research Area) Chairs (pilot call)
- Teaming/Twinning of research institutions
- Improved information, communication and support
- Stimulating cross-border science networks

The Multiannual Financial Framework 2014-2020: Commission's proposals 29 June 2011

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Research and Innovation

Cohesion Policy

Research and Innovation

What is EU Cohesion Policy?

- A framework for financing a wide range of projects and investments with the aim of encouraging economic growth and social cohesion in EU member states and their regions.
- Biggest slice of the EU budget: proposed budget: €325 billion
- Allocation of funds from Cohesion policy will be linked to the Europe 2020 objectives for smart, sustainable and inclusive growth
- Thematic concentration: R&I, SME, low carbon economy + 4th (e.g. ICT, energy, climate)
- Strengthened partnership between Commission and Member States and regions and local communities
- Smart Specialisation Strategies as ex-ante conditionality for R&I

Research and Innovation Investment proposed priorities for the ERDF

Enhancing research and innovation infrastructure (R&I) and capacities to develop R&I excellence and promoting centres of competence, in particular those of European interest

Promoting business R&I investment, product and service development, technology transfer, social innovation and public service application, demand simulation, networking, clusters and open innovation through smart specialisation

Supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production in Key Enabling Technologies and diffusion of general purpose technologies

What is Smart Specialisation?

- A strategic approach to economic development through targeted support to Research and Innovation;
- A process of developing a vision, identifying competitive advantage, setting strategic priorities and making use of smart policies to maximise the knowledge-based development potential of any region (strong or weak, high-tech or low-tech);
- Concentrates resources on a small number of thematic priorities
- Stresses role for all regions in the knowledge economy, through identification of comparative advantages in specific R &I domains/clusters (not just winning sectors);
- Challenges: Smart specialisation has to embrace the concept of open innovation, not only investment in (basic) research.

- See also: http://ec.europa.eu/research/era/publication_en.cfm

Smart Specialisation: Policy (1)

What are the main requirements?:

- Leadership: a long-term commitment of national and regional authorities
- Strategy: a plan with clear objectives and measurable deliverables based on a SWOT-analysis
- (Tough) Choices: select few priorities on the basis of international specialisation and integration in international value chains
- Competitive Advantage: mobilise talent by matching RTD + i and business needs & capacities
- Critical Mass: identify areas where scale and scope can be developed
- Stakeholder involvement / Ownership of the strategy

Smart Specialisation: Policy (2)

What are the main steps to take?

- Step 1 : Analysis of regional potential for innovation-driven differentiation
- Step 2: Smart Specialisation Strategy design and governance - ensuring participation & ownership
- Step 3: Elaboration of an overall vision for the future of the region
- Step 4: Selection of priorities for Smart Specialisation Strategy + definition of objectives
- Step 5: Definition of coherent policy mix, roadmaps and action plan
- Step 6: Integration of monitoring and evaluation mechanisms

Smart Specialisation: Instruments

- Clusters for regional growth: business ecologies that drive innovation
- Social Innovation: new organisational forms to tackle societal challenges
- Key Enabling Technologies: systemic potential to induce structural change
- Research infrastructure/centres of competence: support to ESFRI and EU wide diffusion of leading edge R&D results
- Innovation-friendly business environments for SMEs: good jobs in internationally competitive firms
- Financial engineering
- Lifelong Learning in research and innovation
- Public Procurement for market pull

Smart specialisation: Commission assistance

- RIS3 Platform http://ipts.jrc.ec.europa.eu/activities/research-and-innovation/s3platform.cfm
- Established by the Joint Research Centre (IPTS) in Seville
- Facilitator in bringing together the relevant policy support activities in research, regional, enterprise, innovation, information society, education and sustainable policies.
- Information and communication on related funding opportunities under the relevant EU funding programmes.
- Direct feed-back and information to regions, Member States and its intermediate bodies.
- Provides methodological support, expert advice, training, information on good practice, etc.
- Mirror Group of International experts
- Outside the Platform: Commission funds expert contracts for specific assistance to regions and Member States

Smart Specialisation & IPA

- Not a formal requirement for IPA, but…
- … ex-ante conditionalities such as smart specialisation now an established element of cohesion.
- So, best advice is to prepare and act "as if" it is already required.
- Experience of Croatia will be helpful.

Synergies between Horizon 2020 and Cohesion Policy

HORIZON 2020 ↔ **Cohesion Policy**

EU R&D Policy – future Horizon 2020	EU Cohesion Policy
Differences	
non-territorial approach	**place-based approach**
Based **mainly on individual R&D Projects** (potentially co-funding activities of programmes) tackling the whole cycle of innovation	Based on **multiannual Programmes** aiming at increased competitiveness through close to the market competitive R&D and innovation efforts
In general **awarded directly to final beneficiaries** public and private R&D centres, universities or research funding organisations	Awarded through **shared management** to national and regional public intermediaries
Mostly **competitive calls** addressed to international groupings (exception ERC and MC that also address individuals) **through peer-review based on excellence criteria**	**Non competitive attribution** addressed to regional players based on strategic planning negotiation
Complementarities	
Horizon 2020 will focus on tackling major societal challenges, maximising the competitiveness impact of research and innovation and raising and spreading levels of excellence in the research base	**Cohesion policy** will act as a capacity building instrument via smart specialisation, based on learning mechanisms and critical skills in regions and Member States. Staircase to Excellence: increasing capacity to participate in Horizon 2020.

Thanks for your attention!

Find out more:

http://ec.europa.eu/research/horizon2020
http://ec.europa.eu/regional_policy/index_en.cfm

Research and Innovation