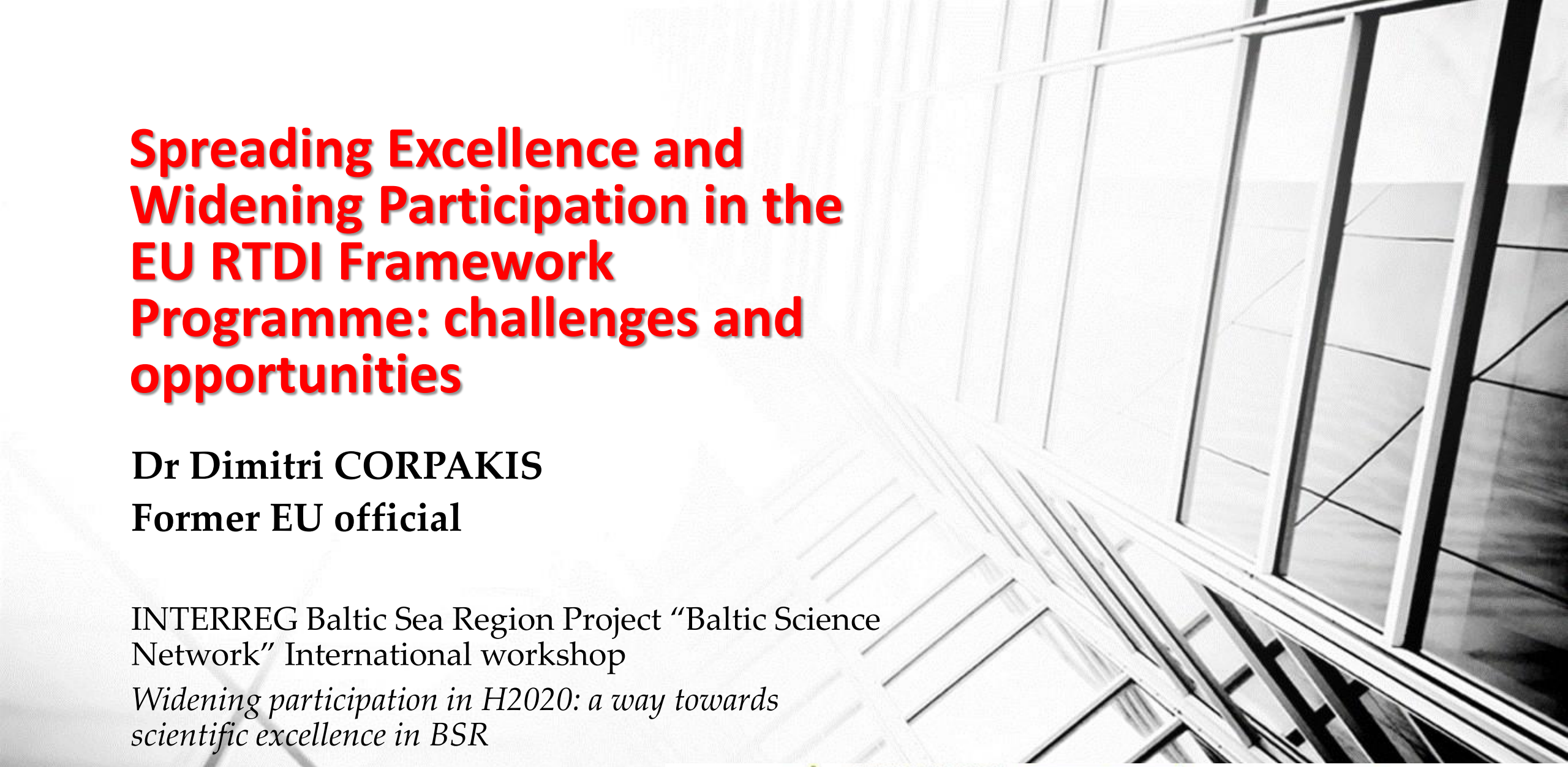
Spreading Excellence and Widening Participation in the EU RTDI Framework Programme: challenges and opportunities

Dr Dimitri CORPAKIS

Former EU official

INTERREG Baltic Sea Region Project "Baltic Science Network" International workshop

Widening participation in H2020: a way towards scientific excellence in BSR



Baltic Science Network

EUROPEAN UNION

EUROPEAN REGIONAL DEVELOPMENT FUND

Interreg Baltic Sea Region

What is the Framework Programme and why it was introduced

- The EU Research (and Innovation) Framework Programme is now in its 8th edition and for the first time bears also a name (Horizon 2020)
- It is firmly rooted in the Treaties (a position consolidated after the Maastricht Treaty in 1992) and has specific objectives ((TFEU, Title XIX: Research and technological development and space, Article 179-190)):
  - [Article 179.1] *'the Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive, including in its industry, while promoting all the research activities deemed necessary by virtue of other Chapters of the Treaties'*
- The Treaty on European Union (Article 4.3 of the consolidated version) lays down that *'in the areas of research, technological development and space, the Union shall have competence to carry out activities, in particular to define and implement programmes; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs'.*

Objectives

- Article 182.1 states that '*a multiannual framework programme, setting out all the activities of the Union, shall be adopted by the European Parliament and the Council, acting in accordance with the ordinary legislative procedure after consulting the Economic and Social Committee*'.
- General objective remains intact across the different versions:
  - *build a society and a world-leading economy based on knowledge and innovation across the whole European Union, while contributing to sustainable development*

Why it is important and what is its impact on the European Union

- By introducing a concerted effort towards the knowledge economy that spans all Member States, the European Union has set an ambitious goal for European societies: **to become the most competitive knowledge economy and society at world level, in a context of fairness and sustainability**
- The appropriate resources from the Union's budget have already been reserved by the European Parliament and the Council (Member States): more than 80 Bn for the latest Multi-annual Financial Framework (MFF)
- **The drive towards the knowledge-based economy takes place in a context of globalisation**, that has important implications for all involved (winners and losers). The FP is a major tool and a catalyser in this direction as it tries to minimise the negative impacts and maximise the benefits

An adapt or die case

- The knowledge economy changes everything
- Globalisation has pushed the boundaries and changed traditional growth strategies
- Global value chains have redrawn the map for conceiving and producing products and services
- Countries and regions not able to adapt (will) see their economies being marginalised
- Global (re)positioning necessary - Need for a new growth proposition based on knowledge assets

The Nutella global value chain

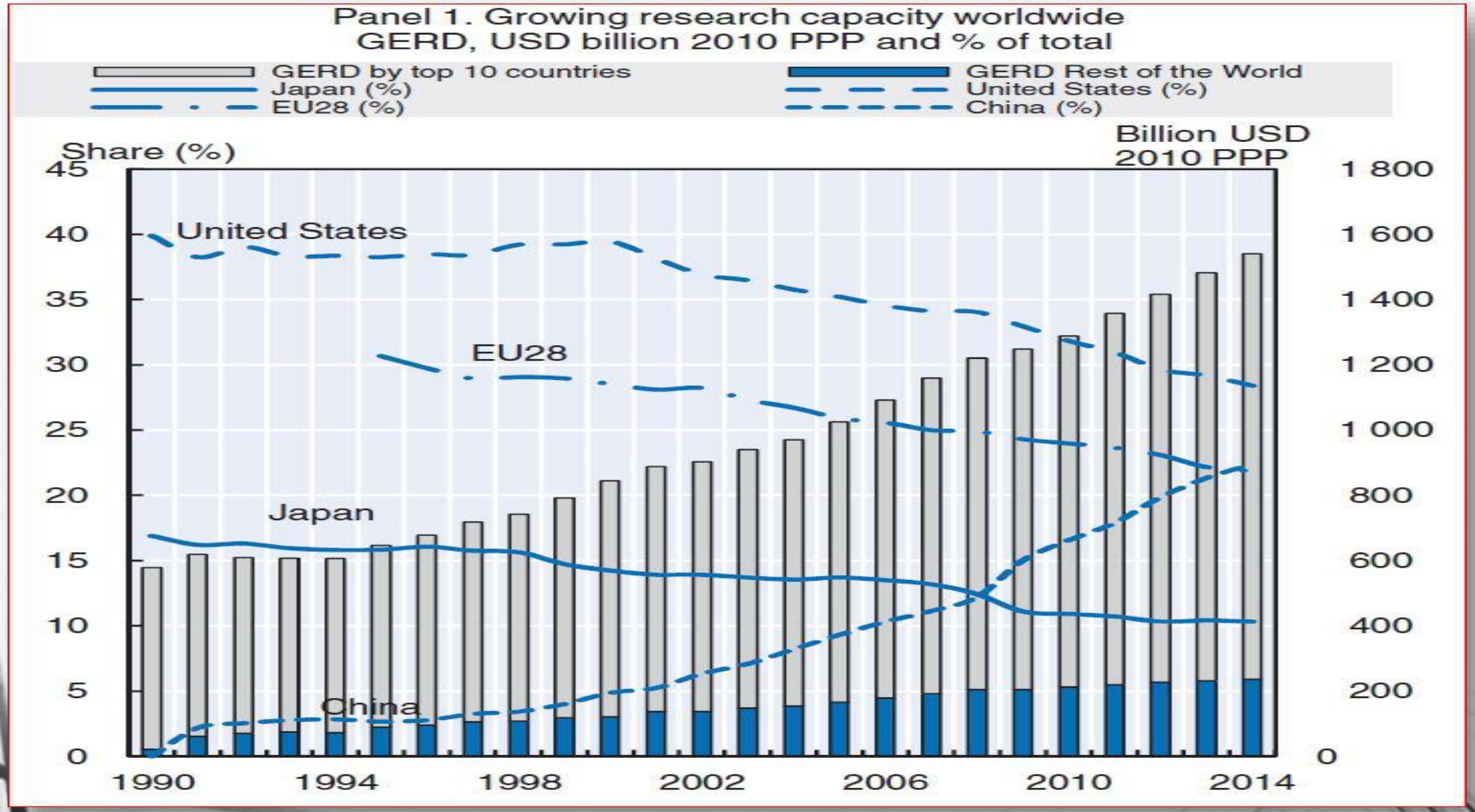
Figure 6. The Nutella® global value chain

Source: Ferrero.

A Global Pressure on National Research and Innovation Systems

- Global competitive pressures on National Research and Innovation Systems drive new responses for excellence initiatives worldwide
- Focus is on capacity building for excellence, on science productivity, efficiency and innovation
- Diverse schemes introduced so-far shifting direction towards more competitive funding, in most cases using a project-driven approach
- Such schemes favour international cooperation that goes beyond traditional forms; long-term working relationships are thus introduced between institutions

World competition intensifies (OECD STI 2016)



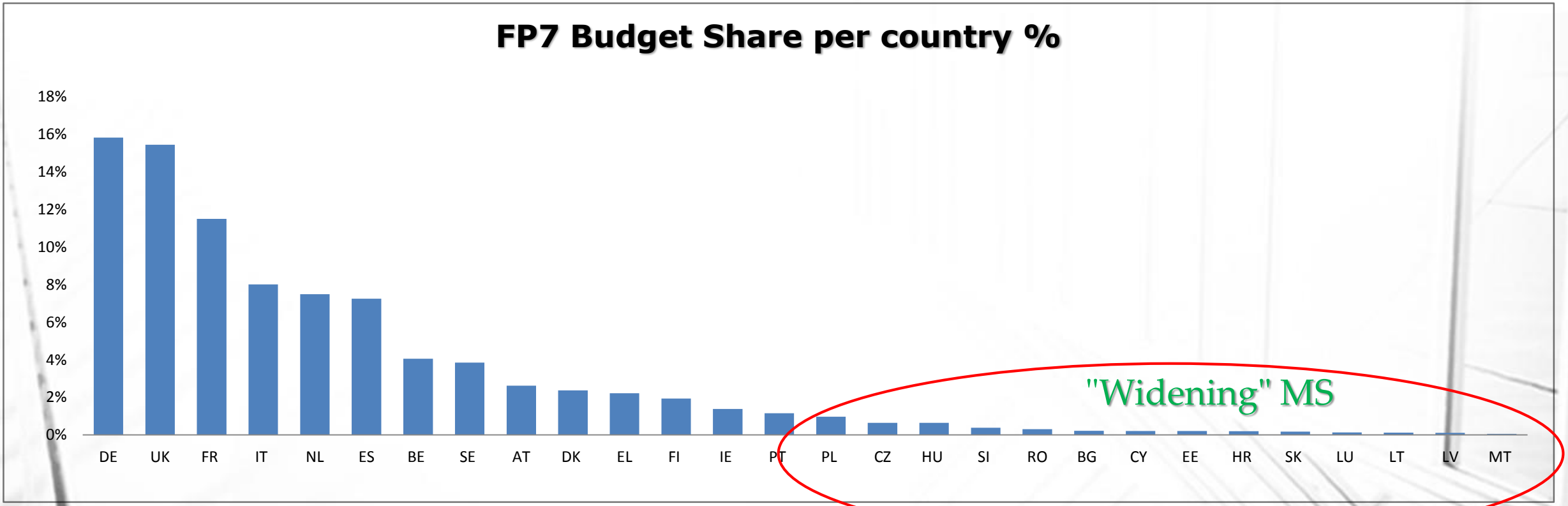
Spreading excellence and widening participation: an answer to catching-up strategies in the context of the FP

- The Interim Evaluation of FP7 revealed severe problems in terms of participation of some countries' organisations in the FP
- The Commission was mandated by the Council to proceed to an analysis of the reasons that led to this result
- Main issue: low participation of EU-13 (majority of the new member states)

Measuring and comparing participation

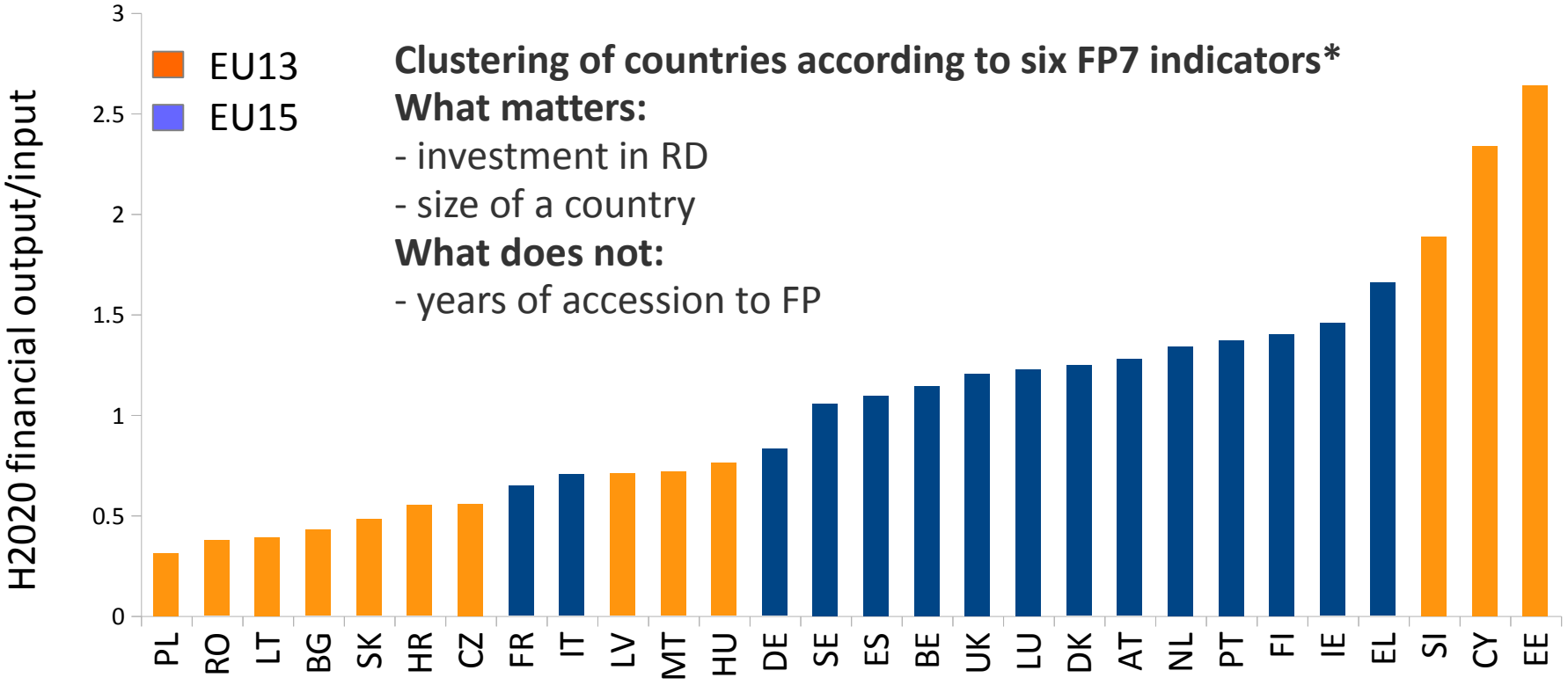
- **Country participation has been always a favourite topic of analysts**, tracking the impact of the Framework Programmes. However as an indicator it has a very relative value as countries themselves do not participate in the FP.
- What is rather important, it is to measure **how organisations belonging to a certain country, participate instead (universities, research organisations and other knowledge institutions, companies)**. Unlike other EU programmes, the FP final beneficiaries have to do directly with the European Commission services (centrally managed programme) without any government intermediaries. **This puts organisations' performance in the spotlight.**
- With a few notable exceptions, participation in the FP involves **forming transnational consortia.** Thus exposure to and involvement in international networks become important factors for successful participation

FP7 country participation



Defining the problem

Extent of the participation gap depends on how we look at it

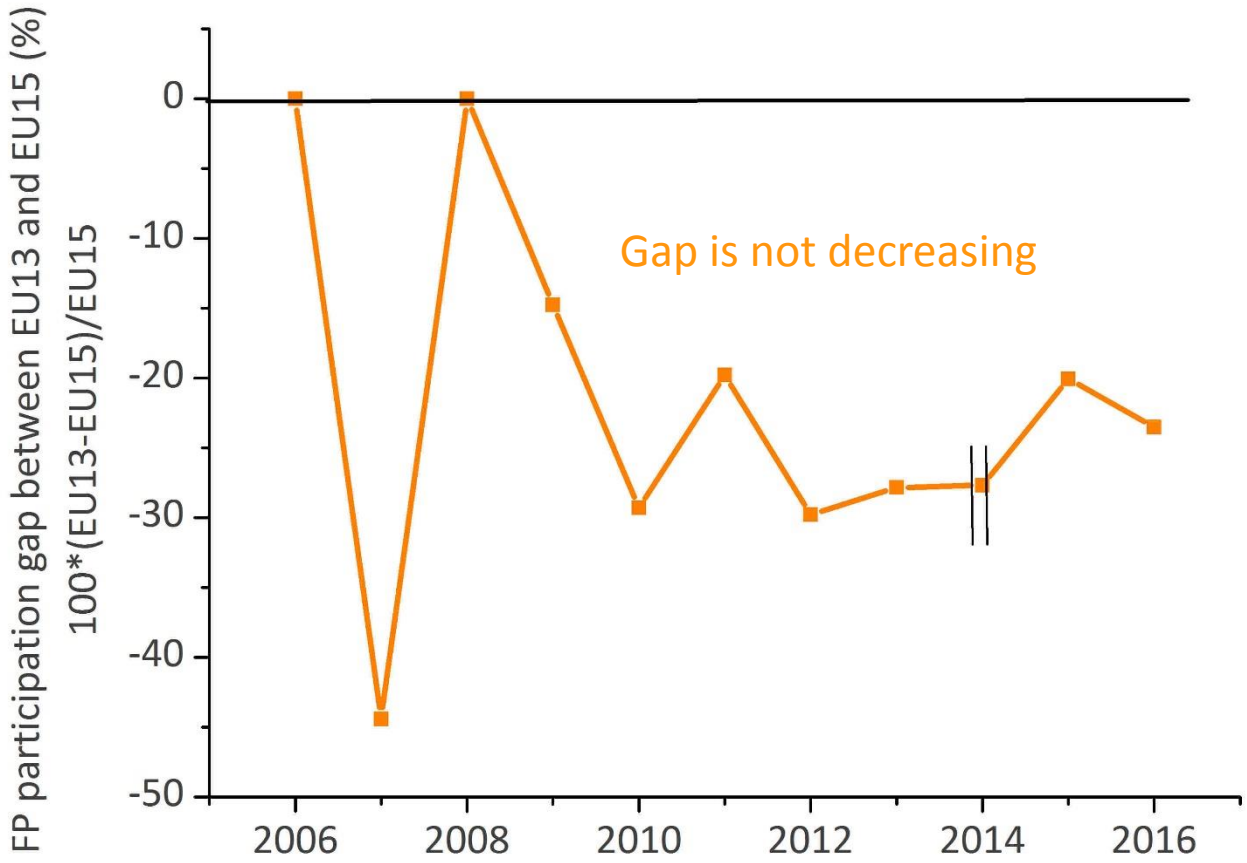


*Ferligoj, Kronegger, Venturini and Kolar, PARTICIPATION IN THE EU FP – policy implications, 2011

Courtesy Dr Jana Kolar

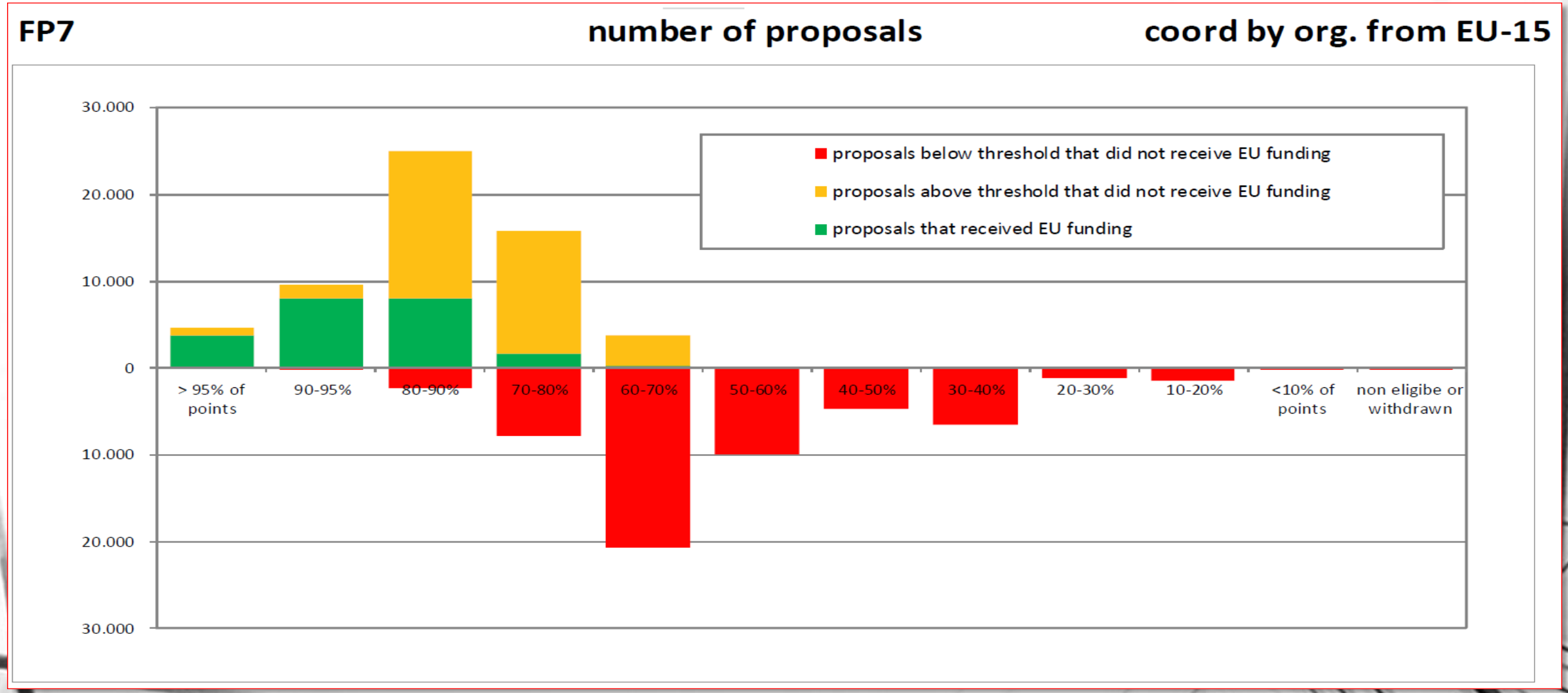
Defining the problem

- scientific excellence - gap is closing
- business expenditure on RD - gap is closing
- participation - gap is not decreasing

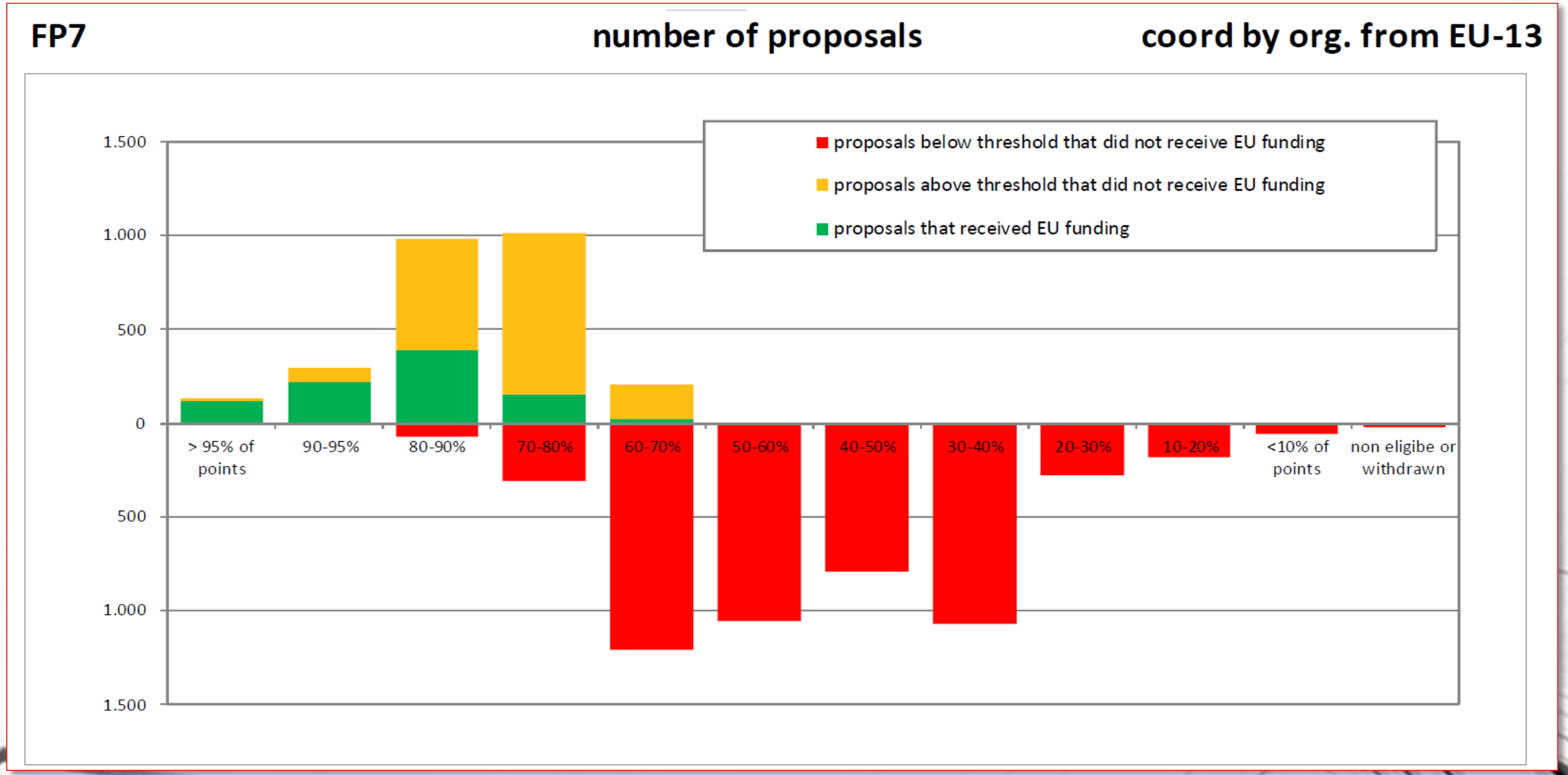


Courtesy Dr Jana Kolar

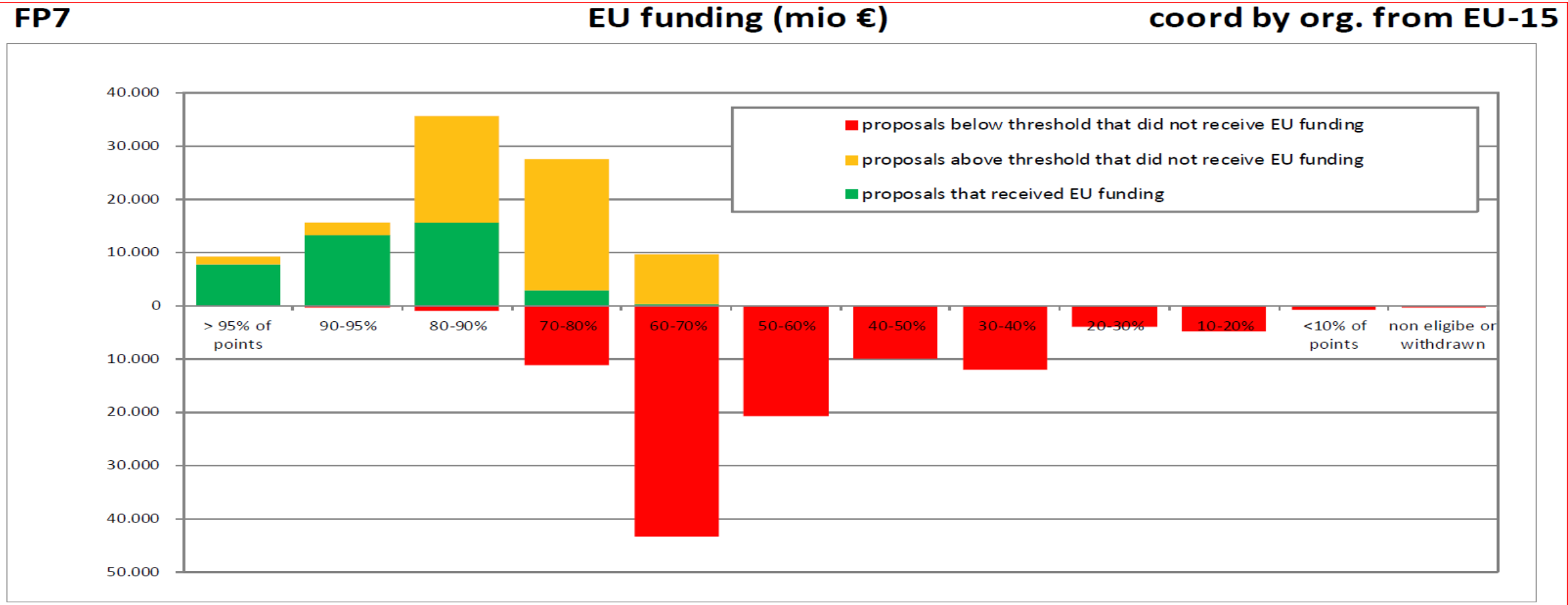
FP7: total number of submitted proposals with coordinators coming from EU-15 and their fate



FP7: total number of submitted proposals with coordinators coming from EU-13 and their fate

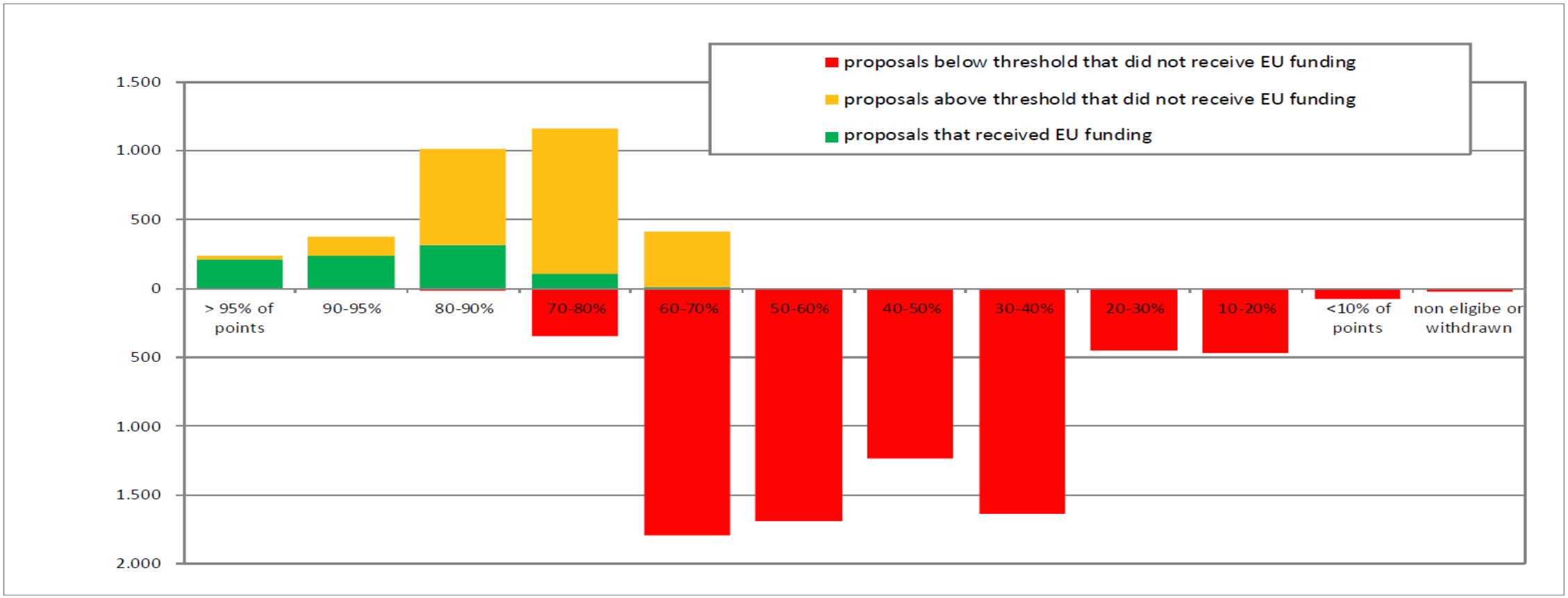


FP7 funding levels: submitted proposals with coordinators coming from EU-15 and their fate



~ 113.700 proposals (205 billion euro), **48%** below threshold, 37% adj. success rate

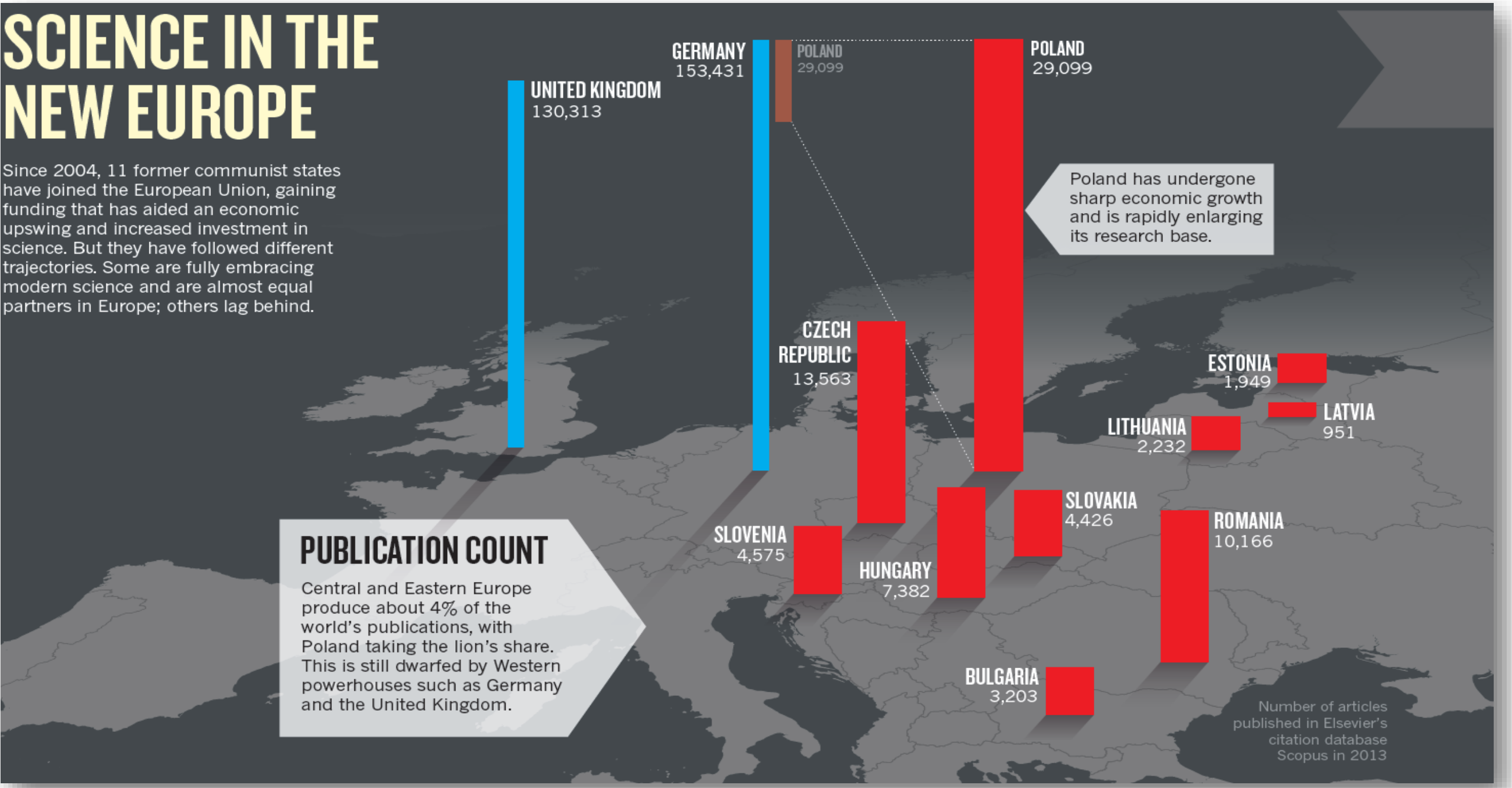
FP7 funding levels: submitted proposals with coordinators coming from EU-13 and their fate



~ 7.700 proposals (11 billion euro), **66**% below threshold, 34% adjusted success rate

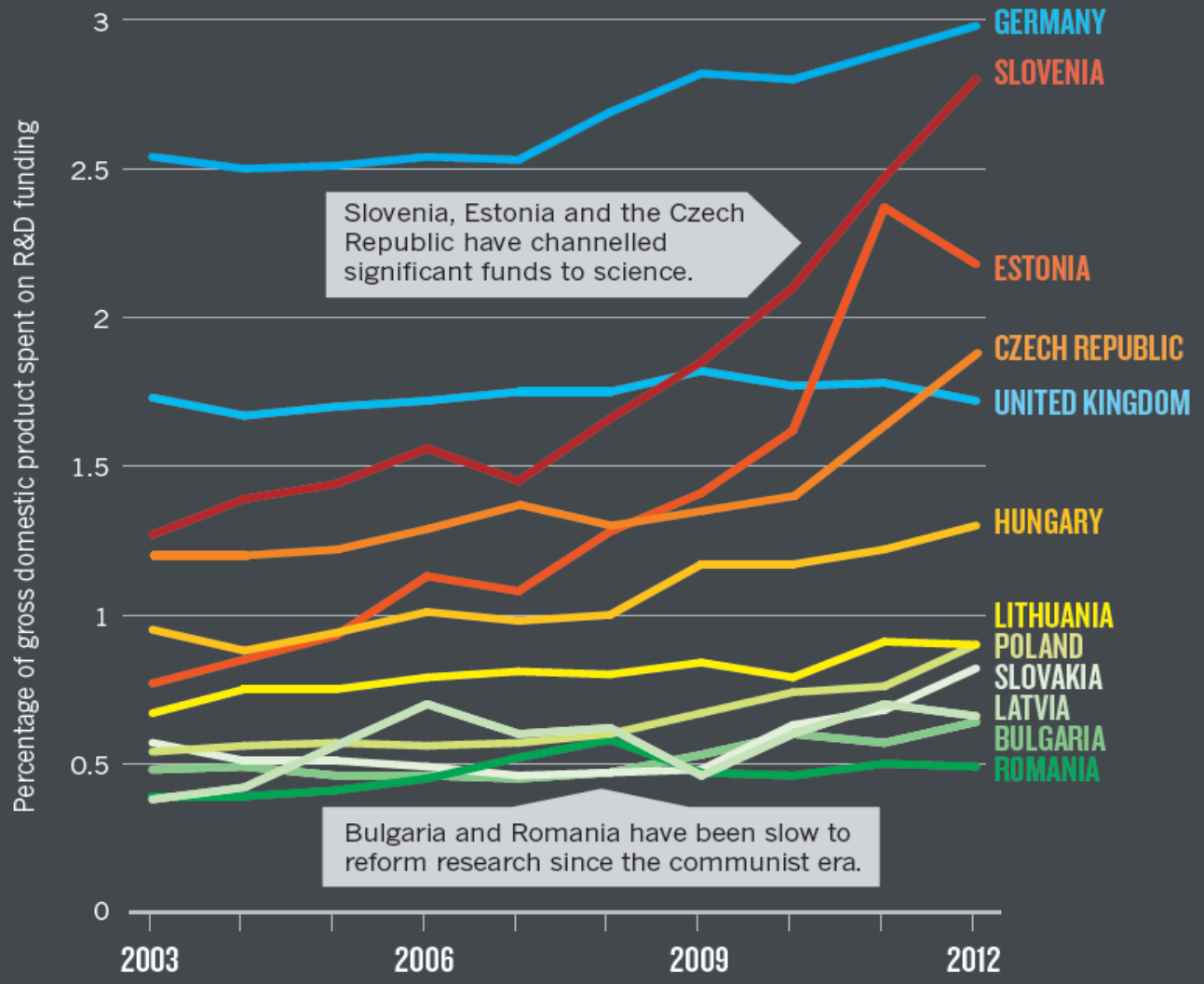
SCIENCE IN THE NEW EUROPE

Since 2004, 11 former communist states have joined the European Union, gaining funding that has aided an economic upswing and increased investment in science. But they have followed different trajectories. Some are fully embracing modern science and are almost equal partners in Europe; others lag behind.



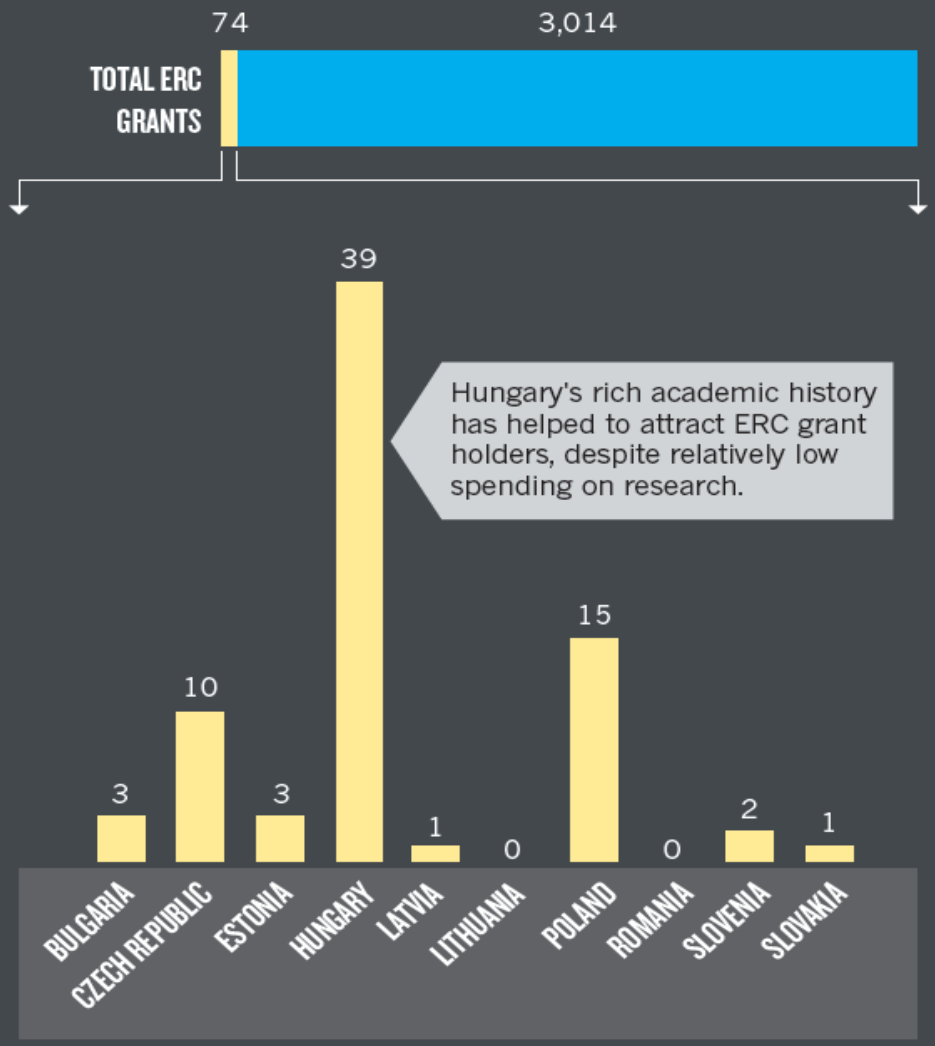
RESEARCH SPENDING

Most central and Eastern European countries have increased total public and private investment in science over the past decade, and some have matched Western European spending.



EUROPEAN RESEARCH COUNCIL GRANTS

Despite the expansion of science, central and Eastern European countries host only a small proportion of scientists with prestigious ERC grants.



NIK SPENCER/*NATURE*

The issues with catching-up economies

Some would argue that there at least two (2) types of catching-up strategies:

- One that "....*assumes that technology is easily available/transferable, not very demanding in terms of skills or infrastructure and that market forces are able to take care of the necessary coordination without large-scale involvement of external "change agents"…."*

- *Another view is that technology transfer is so demanding in terms of skills/infrastructure that market forces, if left alone, are considered unlikely to lead to success, and some degree of active intervention in markets by outsiders, being private organisations or parts of government, is consequently deemed necessary."*

Directions toward catching-up

- "….Arguably, to avoid being stuck along an inferior path and never catch up, "institutional instruments" may be needed to compensate for some of these "latecomer disadvantages"….
  In particular what the developing country firm may need are "institutional instruments" that improve:
  - links with the technology frontier,
  - links with markets (and sophisticated users),
  - supply of needed skills, services and other inputs,
  - the local innovation system/network…".
    - *Jan Fagerberg and Manuel Mira Godinho in Paper presented at the Workshop "The Many Guises of Innovation: What we have learnt and where we are heading", Ottawa, October 23-24.2003, organized by Statistics Canada.*

Revealed reasons of low participation in the FP

In 2011, the Commission presented an analysis on the issue of low participation in the EU Framework Programmes. Some of the key findings focused on:

- insufficient national R&D investments: countries not investing adequately at national level on R&D may not stimulate winners at international competitions
- lack of synergies between national research systems and the EU research landscape
- system learning effects: especially for newcomer countries to the EU, it takes longer for organisations to adapt to a complex Research and Innovation landscape and perform accordingly
- reduced access to international networks
- problems with information, communication and training

A major policy intervention to bring some remedies: the Widening Package under H2020

Measures in Horizon 2020 under **Spreading Excellence and Widening Participation:**

- Teaming (institution building)
- Twinning (institutional networking)
- ERA Chairs (bringing excellence to institutions)

- NCPs (information, communication, support)
- Policy Support Facility (support for R&I Policy design)
- COST (stimulating cross border science networks)
- Total Budget in H2020 ~ **€ 800 million**

Teaming in Horizon 2020 responds to strategic needs for catching-up countries

- Development of scientific capacity for knowledge creation, both in terms of knowledge advancement and its management in institutional terms
- Establishment of strategic institutional connectivity between researchers across borders and scientific areas: this may have important implications for science priorities at national level
- Mediating connections between the science and innovation ecosystems for advanced technological adaptation in a fast changing world (through Triple Helix approaches linking academia, industry and government, often at regional level)

Teaming objective in H2020

- Creation of new (or significant upgrade of existing) Centres of Excellence in low R&I performing or "Widening" countries

The Partnership: 2 parties in each Teaming project

- (1) the COORDINATOR from a "Widening" country (must be a national/regional authority, research funding agency, university or res. organisation)

- (2) a university or res. organisation with an international reputation in R&I excellence (from all EU28 or AC)

➢ Implementation in 2 Phases

Teaming: Scheme Design

Phase 1: Funding the development of a **Business Plan** for the new/upgraded Centre of Excellence facilitated by a teaming process with a leading counterpart in Europe

Proposals (Phase 1):

- Demonstrate the long-term science and innovation strategy of the future Centre
- Outline how this strategy broadly fits with the RIS3 of the Widening country
- Demonstrate that the project is based on a true joint venture between the parties

Phase 2: Subject to the quality of the Business Plan, and the financial commitment for the project from other sources, the Commission may provide further substantial financial support for the **first steps of implementation** of the Centre

Proposals (Phase 2):

- Business Plan (Phase 1 deliverable) with robust financial commitments (national/ESIF/private funds)

➢ IMPORTANT: Access to Phase 2 is only available to those proposals already supported in Phase 1!

Teaming: Lessons learned

Successful proposals marked by:

- Clear objectives / vision /excellence, engaging strategically in a path of innovative growth
- Well-chosen, carefully structured partnership & strong engagement from parties
- Long term science and innovation strategy
- Broad alignment with national/regional Smart Specialisation Strategies
- Long term financial commitments from relevant authorities
- Clear strategy on handling resources

For the next call proposers should:

- Clarify better their vision
- Make clear pointers to integration with medium to long term growth strategies
- Have clear plans on organisational and resource related issues

Twinning: Aim, Objectives & Partnership

Aim of the action:

Strengthen a defined field of research in a university or research organisation from a Widening country by linking it with at least two internationally-leading research institutions in other Member States or Associated Countries.

Main objectives:

- Enhance the S&T capacity of the institutions-Focus on institution in Widening country
- Raise the research profile of the institution and of its research staff

The Partners: (Minimum Conditions)

- **ONE** institution located in a "Widening" MS/AC (**COORDINATOR**)
- A **minimum of TWO** additional partners from two different MS or AC other than the country of the coordinator.

Twinning: Proposal Design & Impact

Proposals:

- Scientific strategy for excellence and innovation in a defined area of research;
- Outline the scientific quality of the partners;

Activities supported:

- Short term staff exchanges; expert visits and short-term training; workshops; conference attendance; dissemination and outreach activities.

Expected Impact:

- Research excellence, in particular, in the selected field of research;
- Improved capability to succeed in competitive research funding;
- Enhanced reputation, attractiveness and networking;
- The expected potential impact of the project illustrated by a number of indicators.

Twinning: Lessons learned

Lessons learned for future calls:

- Clear definition of the scientific strategy towards excellence in the relevant research field;
- Better illustration of the scientific qualities of "advanced" partners and their added value to the project;
- Outline the expected impact of the twinning exercise on the institution in the Widening country (and even at the national/regional level) based on specific indicators.

ERA Chairs - Objectives

Objectives of the action:

- Bring high quality researchers and managers **(the ERA Chair and his/her team)** to universities and other research organisations with the potential for research excellence.
- Institutions should implement structural changes to achieve excellence on a sustainable basis.

Participants

- One single applicant (mono-beneficiary action) located in a Widening country.

ERA Chairs: Proposal Design & Impact

Proposals:

- Bottom-up approach but connected with the ERA Chair holder expertise to fully capitalise on his/her presence;
- Include measures to foster ERA priorities (open recruitment, peer review, gender balance, Charter & Code);
- Include a plan to increase Research Capacity - if infrastructures foreseen present a strategy for funding (including possible use of ESIF funding).

Expected Impact:

- Increased attractiveness of institution and region for excellent researchers;
- Research excellence in the fields covered by the ERA Chair;
- Improved capability of the institution to succeed in competitive research funding;
- Institutional changes to comply with ERA priorities.

ERA Chairs: The ERA Chair holder

- The ERA Chair should be an outstanding researcher and research manager with a proven record of leadership;
- The ERA Chair appointment must follow an open and merit-based recruitment process - to be subjected to monitoring by the European Commission;
- ERA Chair holder should be appointed in a full time position but part-time arrangements are possible;
- The institution should ensure autonomy for the Chair and his/her team;
- ERA Chairs can be of any nationality;

ERA Chairs: Lessons learned

Lessons learned for future calls:

- Clearly define objectives towards institutional changes
- Demonstrate the role and autonomy of the ERA Chair holder
- Work Packages should be consistent and contribute to an overall Action Plan
- Management structures need to be well defined and simple.

Criteria retained for Widening actions

- The Composite Indicator of Research Excellence

Why this indicator?

✓ Excellence is a key factor for performance for the whole R&I system
✓ Only indicator that can measure excellence embedding several dimensions
✓ Parameters normalised to eliminate size and population biases
✓ Innovation taken into account also through the patent applications variable
✓ Strong correlation between the Excellence indicator and the FP7 Budget share per country

Composite Research Excellence Indicator at National level

Origin: Developed by DG RTD & JRC, part of the IU progress at country level 2013 publication included in the ***IU Competitiveness Report 2013***.

Definition: "A composite indicator developed to measure the research excellence in Europe, meaning the effects of the European and national policies on the modernisation of research institutions, the vitality of the research environment and the quality of research outputs in both basic and applied research."

Methodology:

Composite indicator of four variables:

1. Highly cited **publications** of a country as a share of the top 10% most cited publications normalised by GDP
2. Number of world class **universities** and public research institutes in a country normalised by population in the world top 250 universities and research institutes
3. **Patent** applications per million population
4. Total value of **ERC grants** received divided by public R&D performed by the higher education and government sectors

Threshold: MS below 70% of the EU average

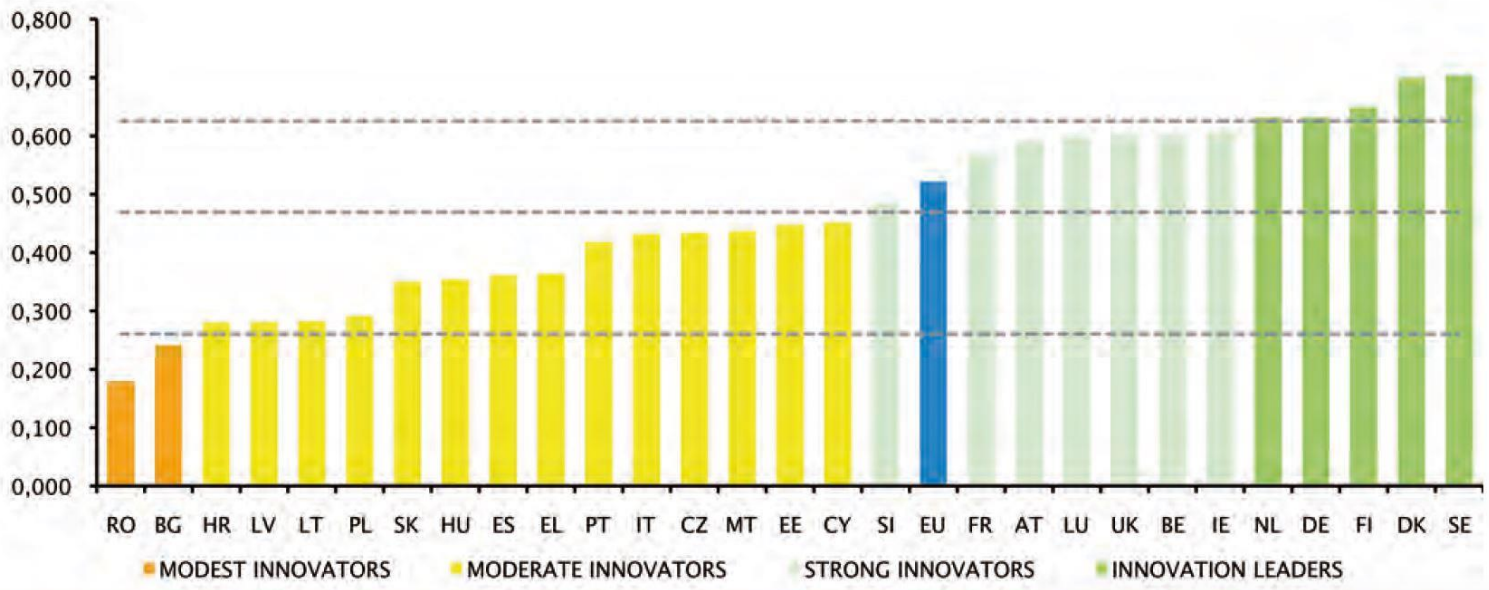
Resulting eligible MS: Latvia, Croatia, Lithuania, Malta, Slovakia, Romania, Luxembourg, Poland, Bulgaria, Estonia, Portugal, Slovenia, Cyprus, Czech Republic and Hungary

	Composite indicator of research excelence 2010
EU27 average	47,9
EU27 70% threshold	33,5
Member States below 70% of the EU27 value	
Latvia	11,5
Croatia	12,2
Lithuania	13,9
Malta	17,5
Slovakia	17,7
Romania	17,8
Luxembourg	19,8
Poland	20,5
Bulgaria	24,7
Estonia	25,9
Portugal	26,5
Slovenia	27,5
Cyprus	27,8
Czech Republic	29,9
Hungary	31,9
Member States above 70% of the EU27 value	
Greece	35,3
Spain	36,6
Ireland	38,1
Italy	43,1
France	48,2
Austria	50,5
United Kingdom	56,1
Belgium	59,9
Germany	62,8
Finland	62,9
Sweden	77,2
Denmark	77,7
Netherlands	78,9

Source: DG Research and Innovation - Economic Analysis Unit
Data: Eurostat, DG JRC - ISPRA

The interplay with the European Structural and Investment Funds: Smart Specialisation as the main vehicle for synergies

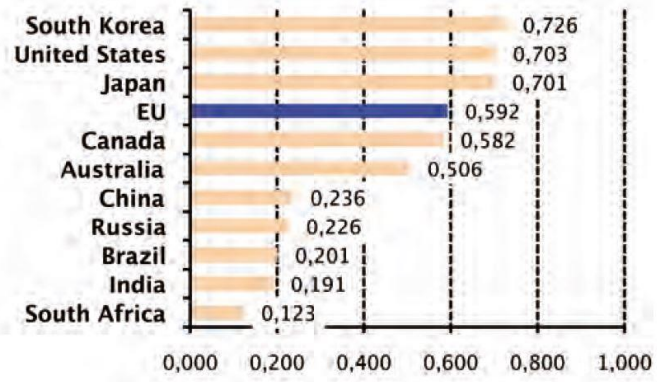
Figure 1: EU Member States' innovation performance



Innovation performance (2016) (EIS 2016)

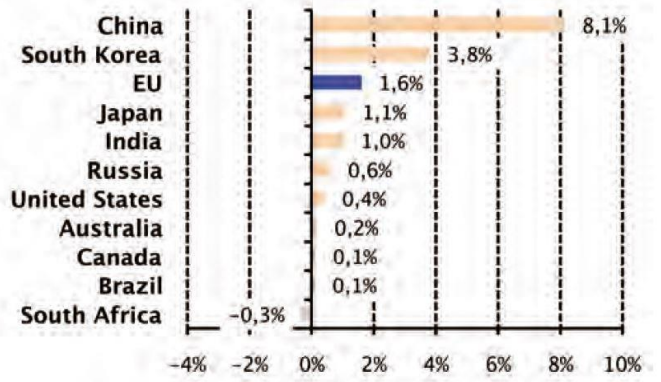
EU vs World innovation performance (2016) (EIS 2016)

Figure 28: Global innovation performance

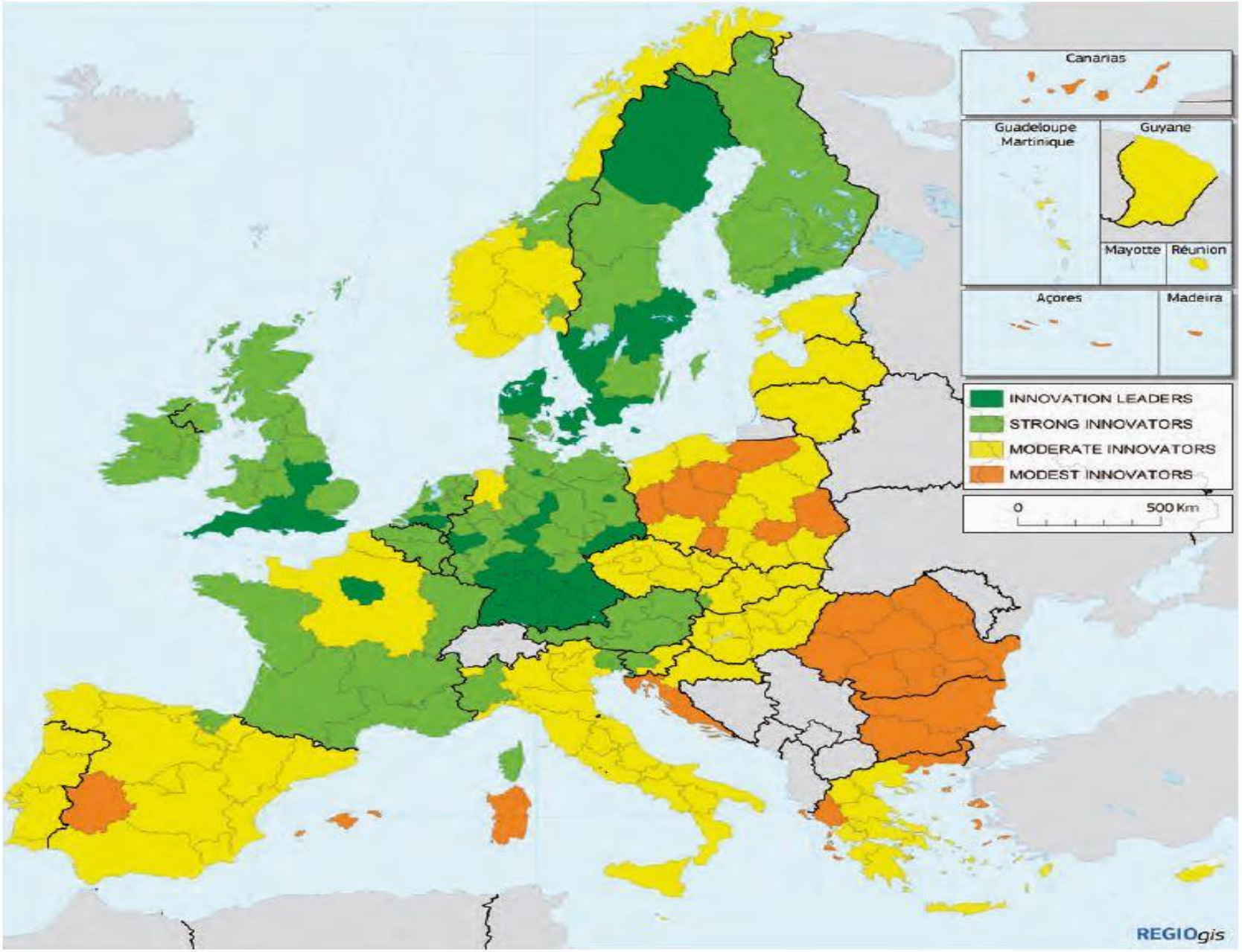


Average performance is measured using a composite indicator - the innovation index - building on data for 12 indicators ranging from a lowest possible performance of 0 to a maximum possible performance of 1.

Figure 29: Global innovation growth rates



Average annual growth rates of the innovation index have been calculated over an eight-year period. Due to a smaller set of indicators the EU growth rate shown in this figure is not comparable to that in Sections 2 and 4.



For Cyprus, Estonia, Latvia, Lithuania, Luxembourg and Malta, performance group membership is identical to that in the European Innovation Scoreboard 2016 report.

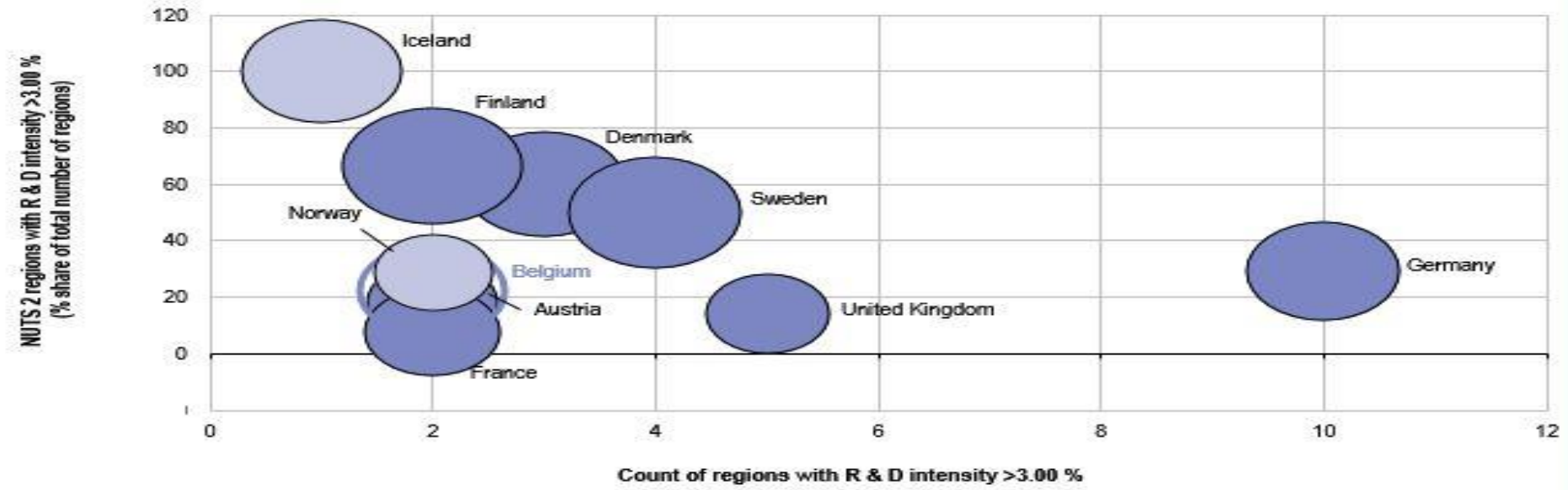
[1] *The annual country-level reports have been published under the name "European Innovation Scoreboard" until 2009, as "Innovation Union Scoreboard" (IUS) between 2010 and 2015, and once again as "European Innovation Scoreboard" from 2016 onwards.*

EU Regional Innovation Scoreboard 2016

EU regional champions in R&D investment (2013)

	Count of regions with R & D intensity >3.00 %	Share of NUTS 2 regions with R & D intensity >3.00 % (% of total number of regions)	National average for R & D intensity
Belgium	2	18,2	2,03
Denmark	3	60,0	3,16
Germany	10	29,4	2,82
France	2	7,7	2,27
Austria	2	22,2	2,71
Finland	2	66,7	3,90
Sweden	4	50,0	3,60
United Kingdom	5	14,3	1,85
Iceland	1	100,0	3,11
Norway	2	28,6	1,69

(1) The size of the bubble reflects national R & D intenstity; countries that are not shown do not have any regions with R & D intensity greater than 3.00 %; Belgium, Denmark, Germany, France (except Martinique (FR92), Guyane (FR93) and Réunion (FR94)), the Netherlands, Austria, Sweden, the United Kingdom and Iceland, 2009; Switzerland, 2008; Greece, 2005; Martinique (FR92), Guyane (FR93) and Réunion (FR94), 2002; Niederbayern (DE22), Oberpfalz (DE23), Chemnitz (DED4), Leipzig (DED5), Emilia-Romagna (ITH5), Marche (ITI3), Helsinki-Uusimaa (FI1B), Etelä-Suomi (FI1C), Cheshire (UKD6) and Merseyside (UKD7), not available.
Source: Eurostat (online data codes: rd_e_gerdreg, nama_r_e2gdp and rd_e_gerdtot)

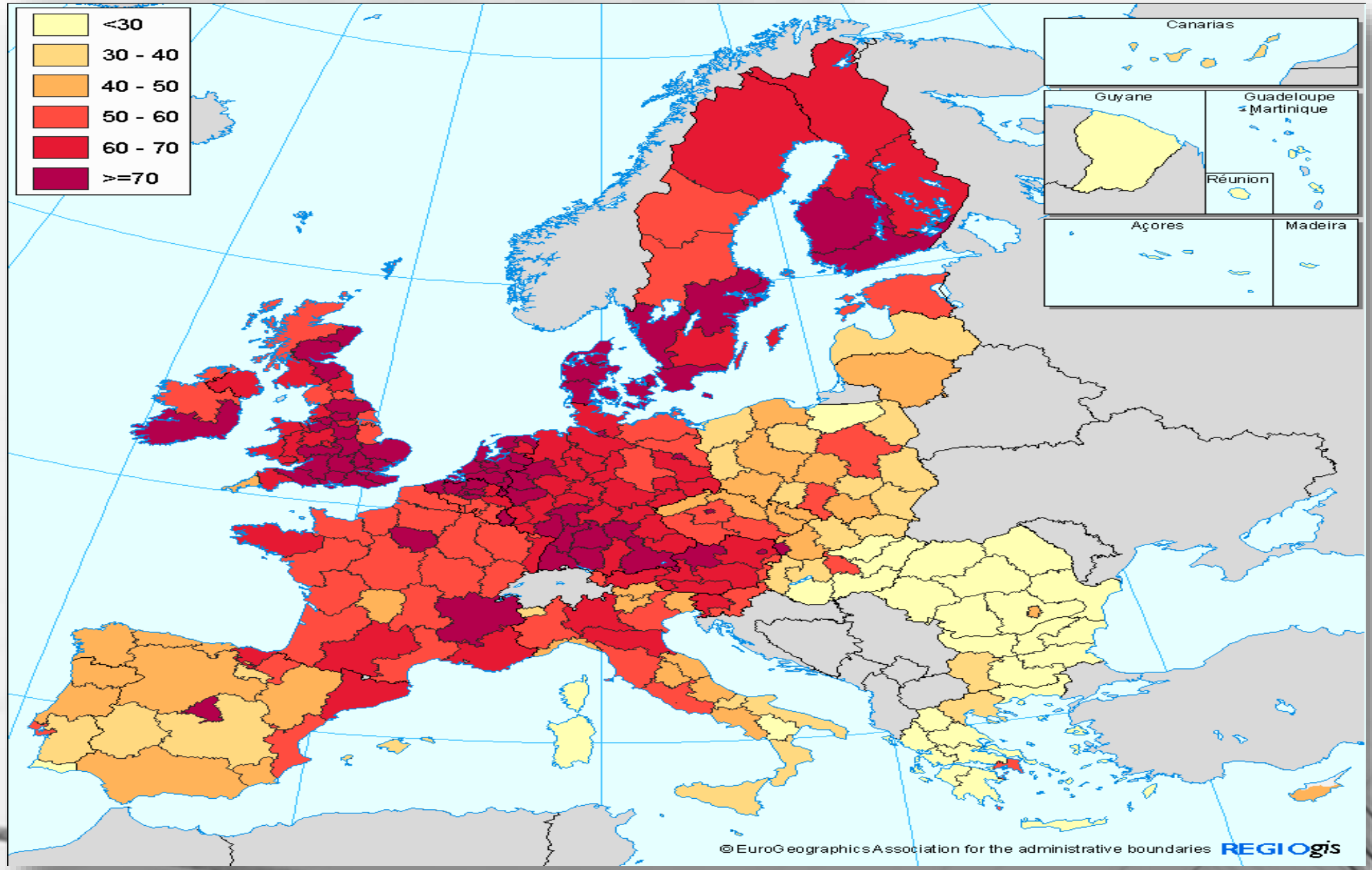


How European regions invest in R&D

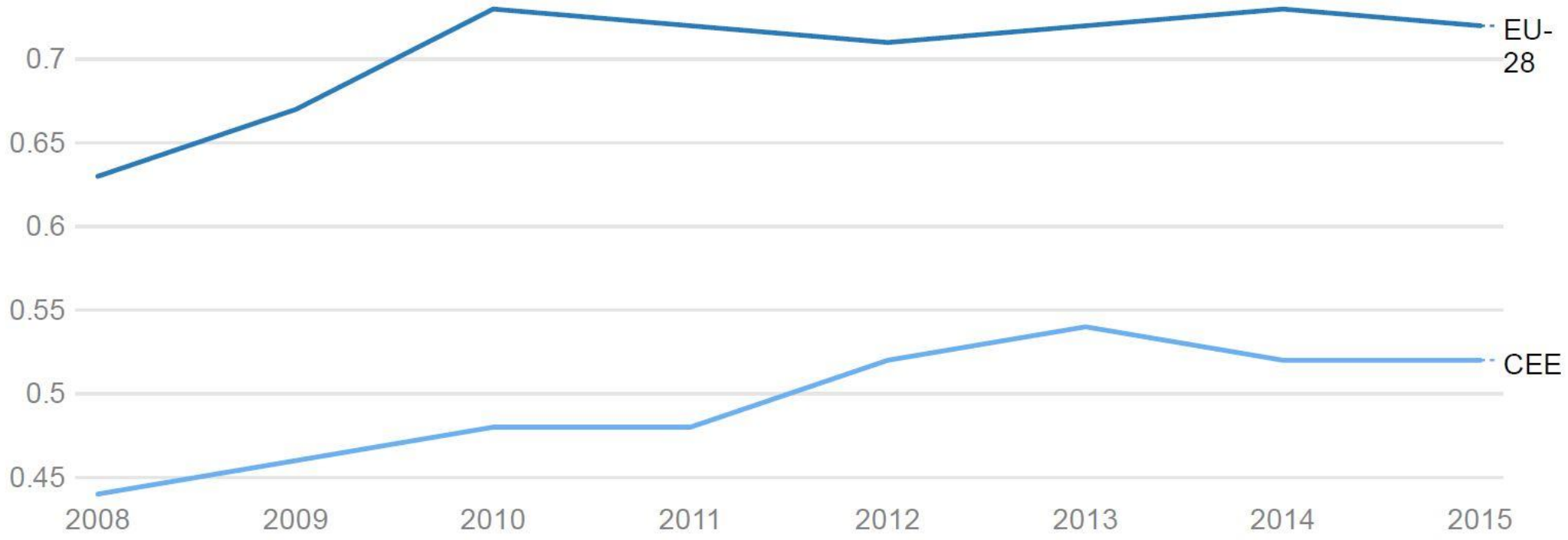
- Out of a total of 266 regions in the EU, only 35 had in 2009 an R&D intensity (R&D investment as a % of their GDP) above 3%
- Taken together these 35 regions accounted for 45% of all R&D expenditure in the EU
- 10 of the most R&D intensive regions in 2009 were located in the Nordic member States, totalising 9,3% of total R&D expenditure in the EU (source EUROSTAT regional yearbook 2012)

Competitiveness Index, 2010

Index - Values range between 0 (low) and 100 (high)

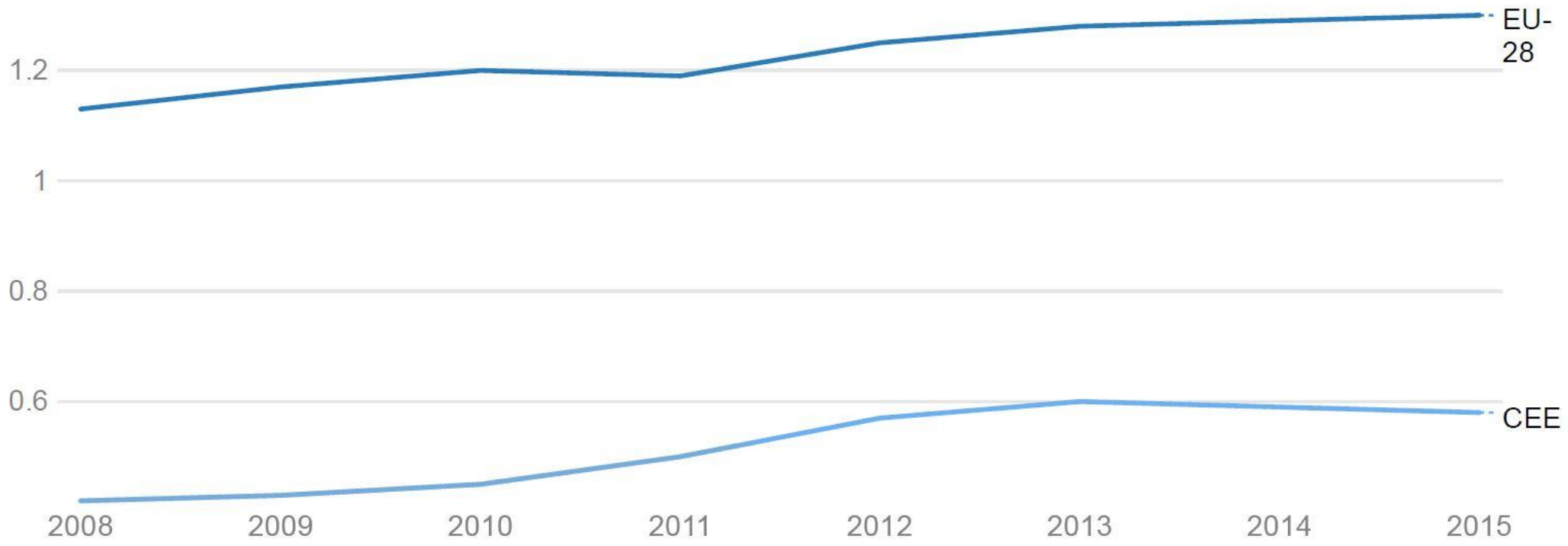


Public R&D expenditures as % of GDP



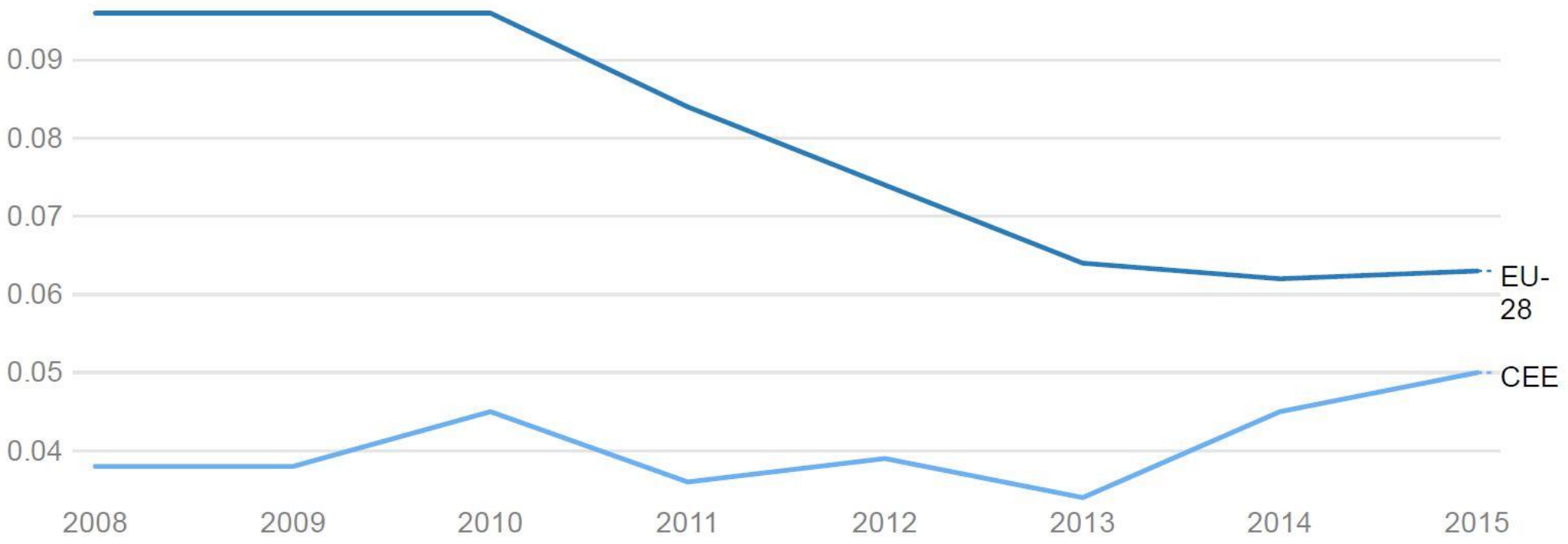
Source: European Innovation Scoreboard Get the data

Business R&D expenditures as % of GDP

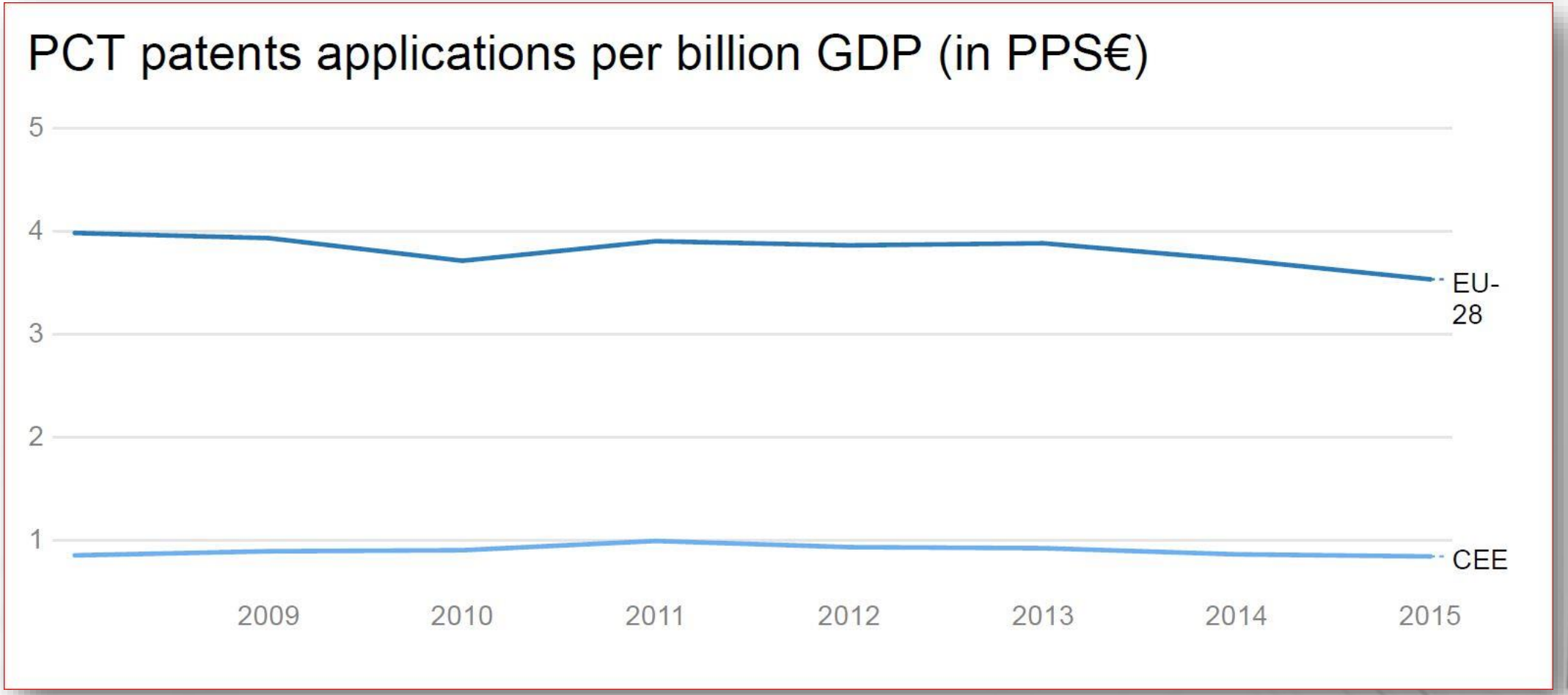


Source: European Innovation Scoreboard Get the data

Venture capital investments as % of GDP



Source: European Innovation Scoreboard Get the data


PCT patents applications per billion GDP (in PPS€)
5
4
3
2
1
EU-28
CEE
2009
2010
2011
2012
2013
2014
2015

Europe's innovation divide undermines competitiveness

- Large parts of the EU out of 'sync'
- Modest and Moderate Innovators holding back the EU as a whole
- Grand policy designs at risk without a sound and functioning base
- Identification of priorities and strategies of crucial importance – yet still, among the major bottlenecks

The Multiannual Financial Framework 2014-2020:

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

1. **Smart & inclusive growth* (€451 billion)**

Education, Youth, Sport | **Connecting Europe*** | **Cohesion** | **Competitive Business SMEs** | HORIZON 2020*

2. **Sustainable growth, natural resources (€373 billion)**
3. **Security and citizenship (€16 billion)**
4. **Global Europe (€58 billion)**
5. **Administration (€61.6 billion)**

TOTAL €960 billion

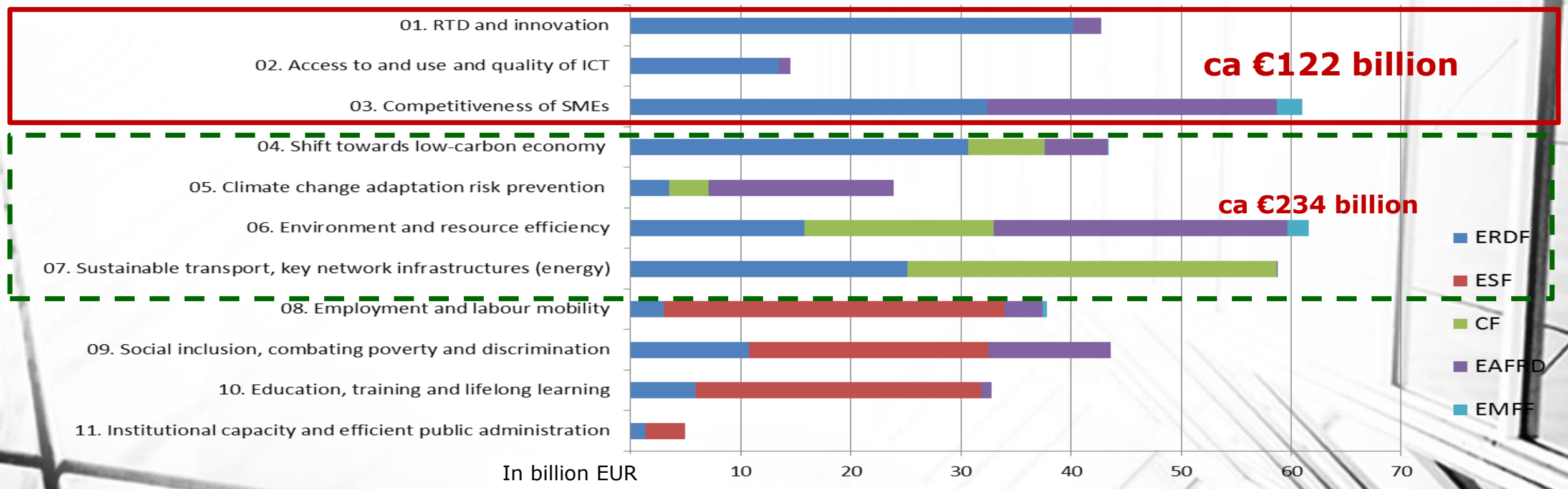
(figures are given in constant prices)

About the new Cohesion policy
(ESIF – European Structural and Investment Funds)

- ESIF focus on Europe 2020 objectives for smart, sustainable and inclusive growth / list of 11 thematic objectives for ESIF developed around the Europe 2020 priorities
- New regulatory provisions for thematic concentration (R&I part of the minimum 60-80% concentration for ERDF funds in more developed regions - 50% in less developed regions)
- Support to applied research and innovation for the purpose of regional socio-economic development
- Capacity building for innovation and growth through the promotion of innovation friendly business environments
- Smart Specialisation – strategic approach to economic development through strategic support for R&I / *Ex-ante Conditionality* for the use of the European Regional Development Fund (ERDF) for any kind of R&D&I investments

ESIF programming 2014-20: State of Play

- EUR 454 billion of ESIF + EUR 183 billion of national co-financing
- 456 national and regional and 79 INTERREG cooperation programmes
- Concentration on 11 Thematic Objectives

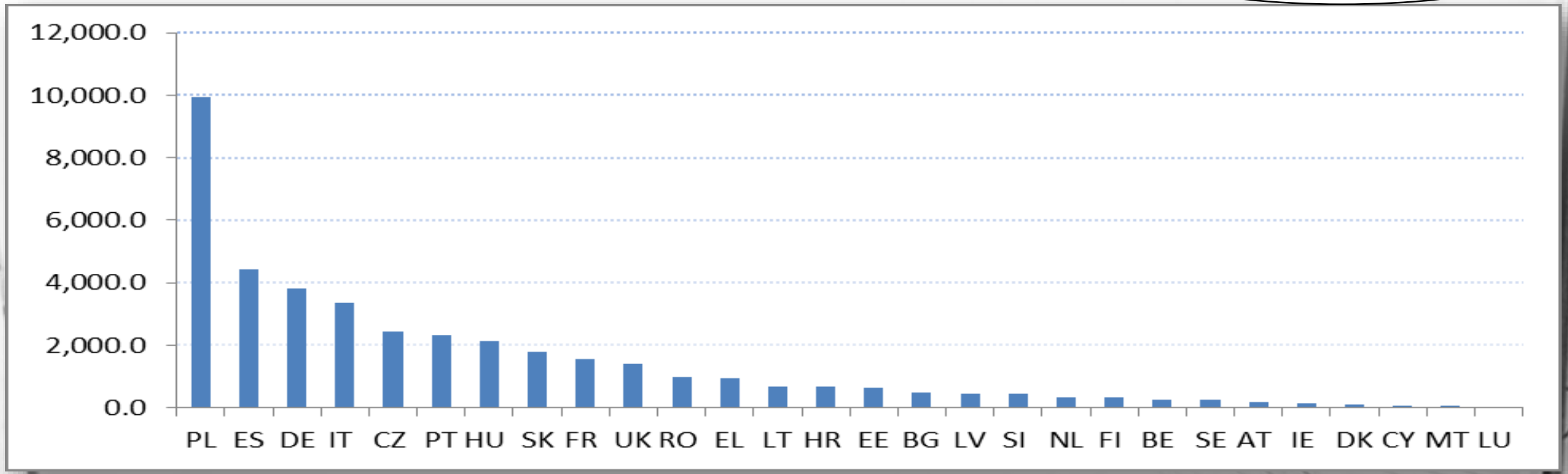


Source: Final ESIF partnership agreements as of December 2015
Soon all open data available at: https://cohesiondata.ec.europa.eu/

ESIF: How much do we invest in RTDI?

- Total EU budget for RIS3: EUR 43.7 billion (ESIF)
- Plus EUR 22 billion from national budgets
- EUR 10 billion in financial instruments / the rest in grants

More than 120 RIS3 (regional and national)



Source: Final ESIF partnership agreements as of December 2015
Soon all open data available at: https://cohesiondata.ec.europa.eu/

Smart Specialisation involves…

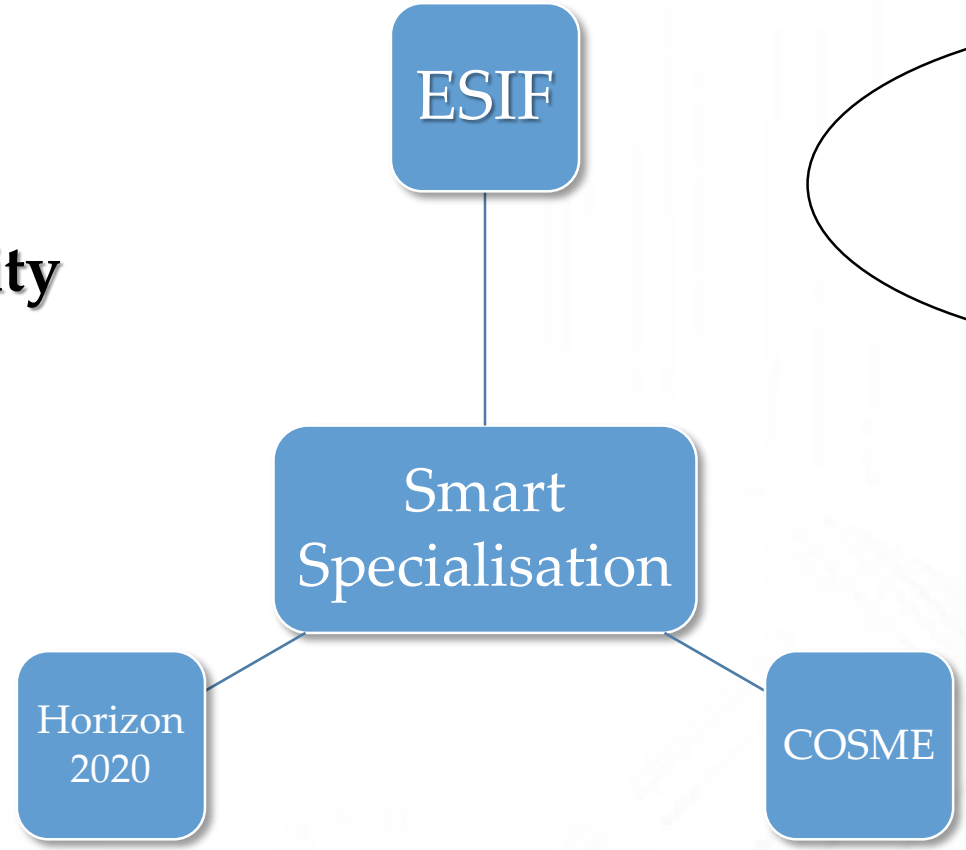
- … putting in place a process:
- to identify **sectors and emerging domains** where structural changes are desirable
- to **stimulate** (and learn from) the **entrepreneurial discovery processes** (EDP)
- to **concentrate resources** on a few number of activities (emerging from the EDP)
- to help these **activities to grow** (specific capabilities and complementary resources)
- to **measure progress**
- to **re-initiate the process** at any time

Courtesy Prof. Dominique Foray - European Regional Science Association lecture Brussels, 4 March 2016

Smart Specialisation: Policy linkages

Common Provisions Regulation 2013
Ex Ante Conditionality

Innovation Union 2010
Annex on policy design



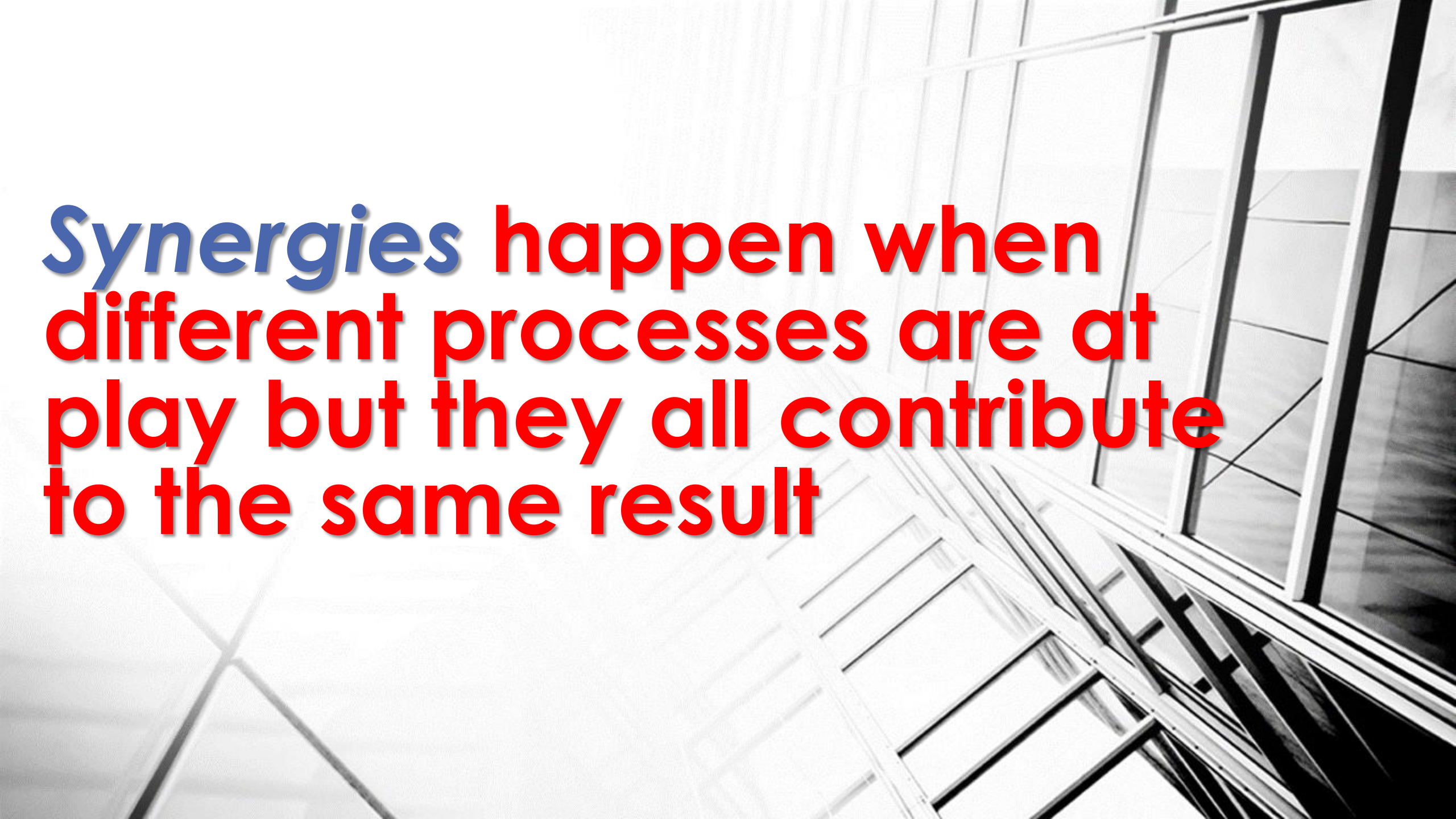
Economic Transformation Agenda !

Industrial Policy Communication 2014
Thematic Smart Specialisation Platforms

Strengthening Synergies between ESIF and the FP

- Strengthening synergies between Horizon 2020 and the European Structural and Investment Funds (ESIF) is about **building meaningful interactions** between investment strategies and interventions as a way to have significant impacts on the economy, combining **place-based innovation investments** in smart specialisation priorities with **world-class research and innovation initiatives**, thus ensuring a higher impact of the funds.

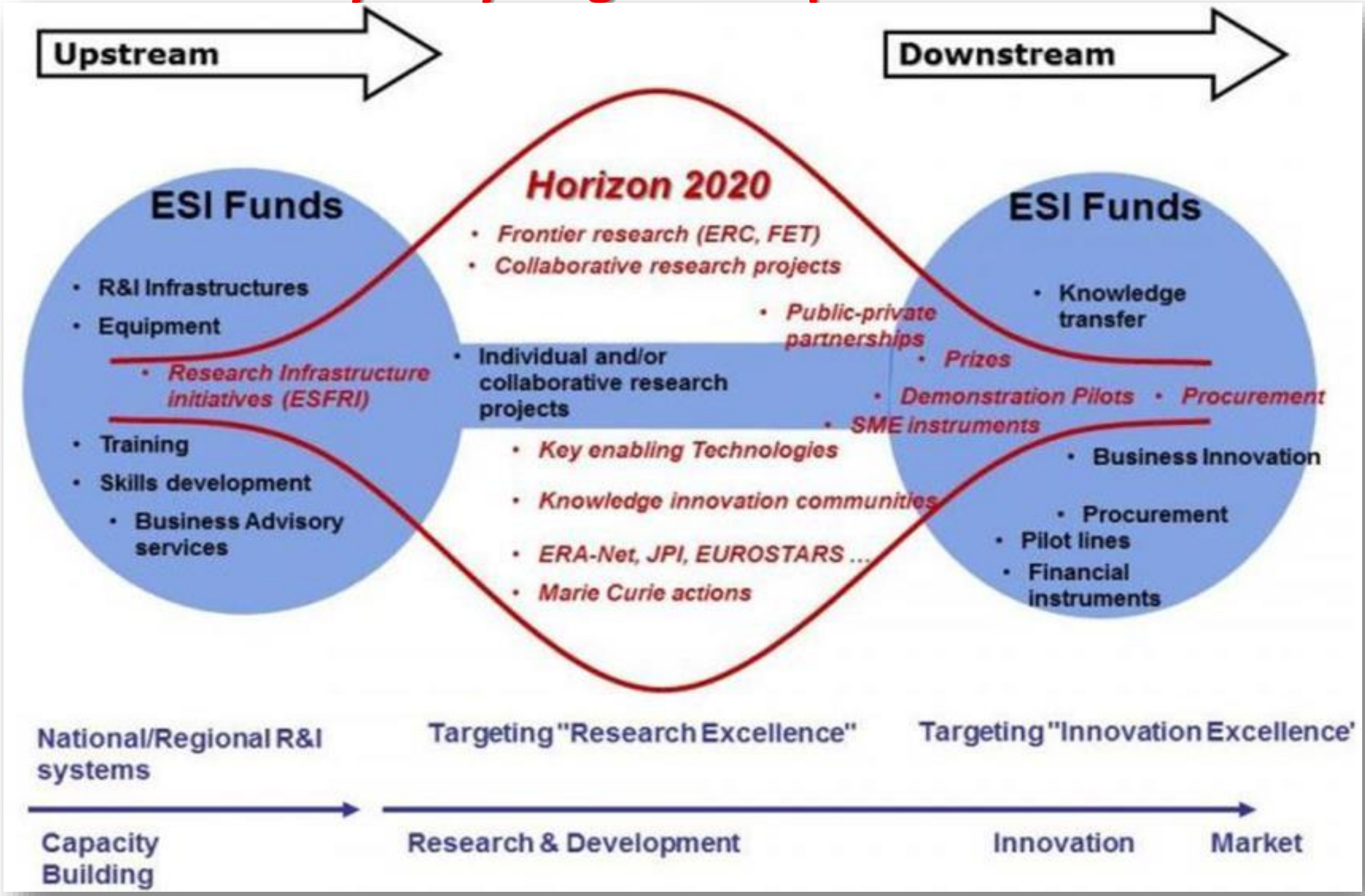
- Synergies expected to gain strength as both Horizon 2020 and the ESIF Common Provisions Regulation include for the first time a relative legal mandate for their development, not only among them but also with other programmes, such as COSME, Erasmus+ and Connecting Europe Facility.


Synergies happen when different processes are at play but they all contribute to the same result

Keys to Synergies

- ✓Smart Specialisation ex-ante conditionality
- ✓Thematic Concentration
- (both under Cohesion policy)

Taxonomy of synergies – implementation level



Typical synergy actions driven by an ESIF OP include (non-exhaustive list of examples):

- *Support for investment of research infrastructure and equipment including competence centres (combination of research and advanced training centres)*
- *Support to the whole innovation cycle through improving the overall framework conditions for businesses (but also support measures towards social innovation)*
- *Support to research actions and infrastructure investments in the area of Key Enabling Technologies (KETs)*
- *Preparation of research and innovation stakeholders towards a better participation in the Horizon 2020 Calls (support via training, raising awareness, networking and partner identification)*
- *Support to downstream measures like exploitation and commercialisation of finished or about to finish research projects*
- *Reinforcement of local impact (including additional work packages) of agreed Horizon 2020 projects (that are by definition transnational)*

A lot of money, but how I coordinate investment ?

- *A good mix of bottom-up and top-down necessary*

- ***Plan your investments starting from ESIF*** *(identify intervention areas, RIS3 growth drivers, intervention measures and means)*

- ***Stimulate potential H2020 players****: when successful, see how local H2020 beneficiaries can be further supported inside the* ***Operational Programmes*** *(but pay attention to avoid double funding !)*

How can you get the most out of the FP and organise a successful participation: a systemic approach:

- **Define a vision** for the knowledge economy at national and regional level: **what do you want your country / region to do and look like ?**
- **Discover** the growth drivers for your knowledge society (towards a true smart specialisation process)
- **Get to know yourselves**: identify strengths, weaknesses, opportunities and threats (SWOT) of companies and knowledge institutions
- **Promote a project management culture** and raise administrative capacity (organise debates, seminars, information days, proposal writing exercises)
- **Connect to the right networks** at EU and international level

INTERREG (ETC) provides new opportunities for interregional cooperation between innovation ecosystems

- New European Territorial Cooperation offers new opportunities to engage in the knowledge economy
- Focus is on institutional and regional learning networks
- Smart Specialisation can serve as a launch-pad for new initiatives across Interreg regions
- Regional Innovation Ecosystems can provide the new FP champions, based on systematic work and enhanced networking
- Institutional building will be key, as well as a project management culture

Major issues on planning ahead

- Structural deficiencies in the planning authorities at national and regional level
- Absorptive capacity
- Difficulties of small players in integrating global innovation value chains
- Difficult or non-existent cooperation between universities and the business communities
- Spiral of marginalisation and lack of ambition
- Huge gaps in research and innovation investments correlate with gaps in innovation performance
- **Commission response**: emphasis on better planning tools (ESIF, RIS3) and on institutional networking with no compromise on excellence (Spreading excellence H 2020)

Useful links and documents

- **RIS3 PLATFORM:** http://ipts.jrc.ec.europa.eu/activities/research-and-innovation/s3platform.cfm
- **SYNERGIES & SEAL OF EXCELLENCE:** http://ec.europa.eu/research/regions/
- **SYNERGIES BROCHURE:** https://ec.europa.eu/research/regions/index.cfm?pg=publications
- **GUIDE for authorities on synergies between ESIF and Horizon2020 and other EU programmes:**
  - http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/other/index.html
- **HORIZON 2020:** http://ec.europa.eu/research/horizon2020/index_en.cfm
- **HORIZON 2020 Participant Portal (Calls):** http://ec.europa.eu/research/participants/portal/desktop/en/home.html

Thanks for your attention!

https://be.linkedin.com/in/dimitricorpakis

https://twitter.com/gpstune

d.corpakis@gmail.com

Baltic Science Network

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

EU STRATEGY FOR THE BALTIC SEA REGION FLAGSHIP

Interreg Baltic Sea Region