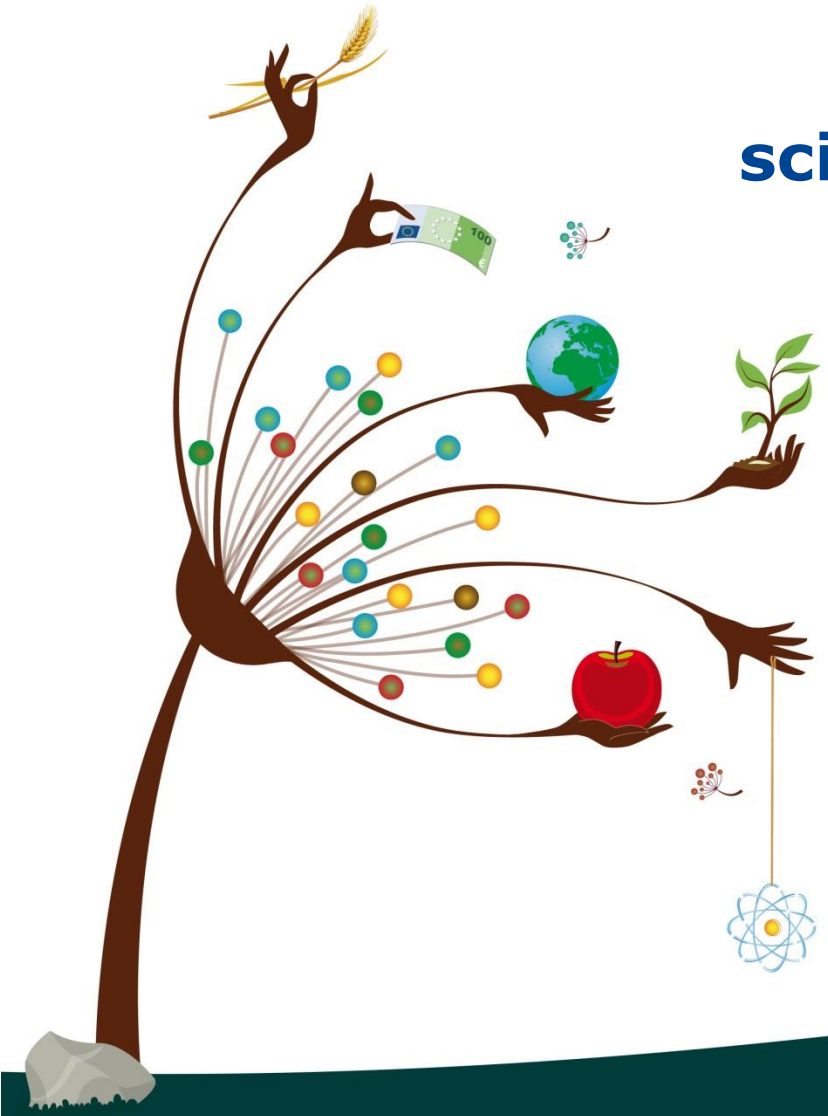


The European Commission's science and knowledge service

Joint Research Centre

Higher Education for Smart Specialisation

EDULOG Conference
Porto, 26 May 2017

John Edwards

Smart Specialisation Platform

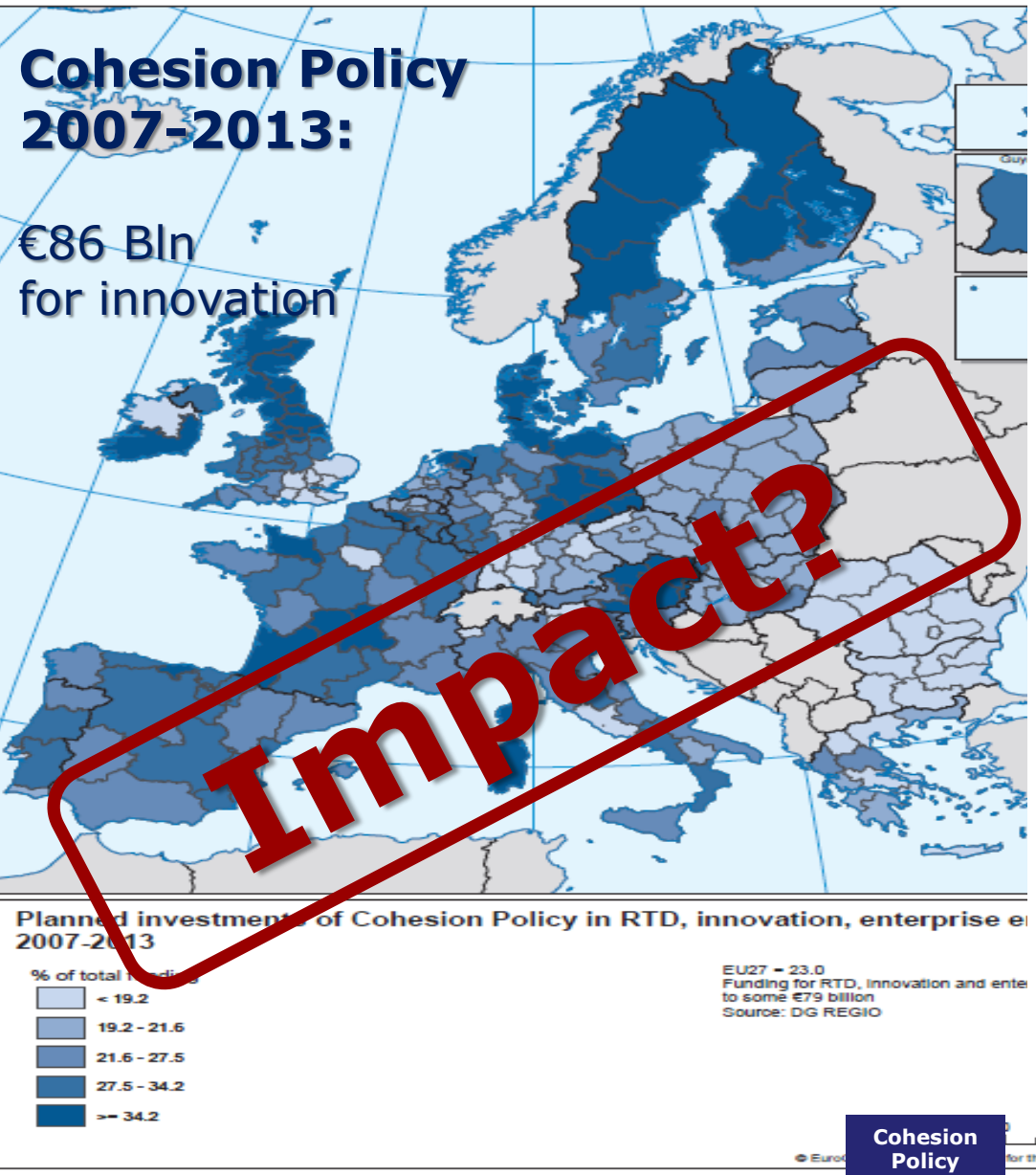
Created in 2011 to provide science-based professional **advice** to EU national and regional policy-makers for the establishment and implementation of their Research & Innovation Strategies for Smart Specialisation (**RIS3**), make better use of the European Structural and Investment Funds (**ESIF**) and thus contribute to the **Europe 2020** goals

A privileged perspective:

Outside the Commission *- Support to countries and regions developing and implementing their RIS3 and to their "triple/quadruple helix" partnerships*

Inside the Commission *– Coordinates an S3 inter service Steering Team*

In the scientific community *– Contribution to the conceptual and methodological debate*



Problem:

- Lack of interaction between levels of government and ministries
- Strategies without external perspective – duplication
- Lack of critical mass
- Measures only for R&I supply push and not for demand stimulation /market access
- Focus on fashionable themes / prestige projects
- Focus on existing sectors and not on emerging R&I activities

See: Regional Innovation Monitor
www.rim-europa.eu

What is Smart Specialisation ?

= evidence-based: all assets

= no top-down decision, but dynamic/entrepreneurial discovery process inv. key stakeholders

= global perspective on potential competitive advantage & potential for cooperation

= source-in knowledge, & technologies etc. rather than re-inventing the wheel

= priority setting in times of scarce resources

= getting better / excel with something specific

= focus investments on regional comparative advantage

= accumulation of critical mass

= not necessarily focus on a single sector, but cross-fertilisations

What are Smart Specialisation Strategies?

National/Regional Research and Innovation Strategies for Smart Specialisation (RIS3 strategies) are **integrated, place-based economic transformation agendas** that do five important things:

- They focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development.
- They build on each country/region's strengths, competitive advantages and potential for excellence.
- They support technological as well as practice-based innovation and aim to stimulate private sector investment.
- They get stakeholders fully involved and encourage innovation and experimentation.
- They are evidence-based and include sound monitoring and evaluation systems.

From RIS to RIS3

Building on the past

- Widespread experience of national/regional innovation strategies in the framework of the EU Cohesion Policy
- Achieved greater co-operation among private and public stakeholders and better communication between technology providers and clients

Breaking with the past

- Not in tune with the industrial and economic fabric of regions
- Too narrow vision of 'technological' innovation
- The best performing regions were just copied or resources spread across 'all sectors'
- Lack of international and trans-regional perspective

European Commission

Have you got any examples?



http://s3platform.jrc.ec.europa.eu/smart-stories

Joint Research Centre

Conclusions of June 2014 high level conference on Mobilising Universities for Smart Specialisation

Robert Jan Smits, Director General for Research and Innovation:

"The key to universities becoming strategic institutions is to take a holistic view of their activities, rather than treating them in isolation. By integrating research, teaching and external engagement, the knowledge created can have a much greater impact"

"University management as well as academic staff need to become pro-active and move beyond mono-disciplinary and mono functional actions. However, EU and national incentive structures also need to change because they are overly biased towards research output and can hinder universities in playing this strategic role"

Higher Education in S3

- Weak policy mix for human capital and mobilization of HEIs (Review by S3 Platform)
- Yet survey data shows that S3 managers place high emphasis on human capital
- Prioritised domains will not be sustainable without adequate human resources (e.g. DG R&I Expert Group Report 2015)
- Risk that ESI Funds are not strategically spent and HEIs become rent seekers

Importance of education for less developed regions

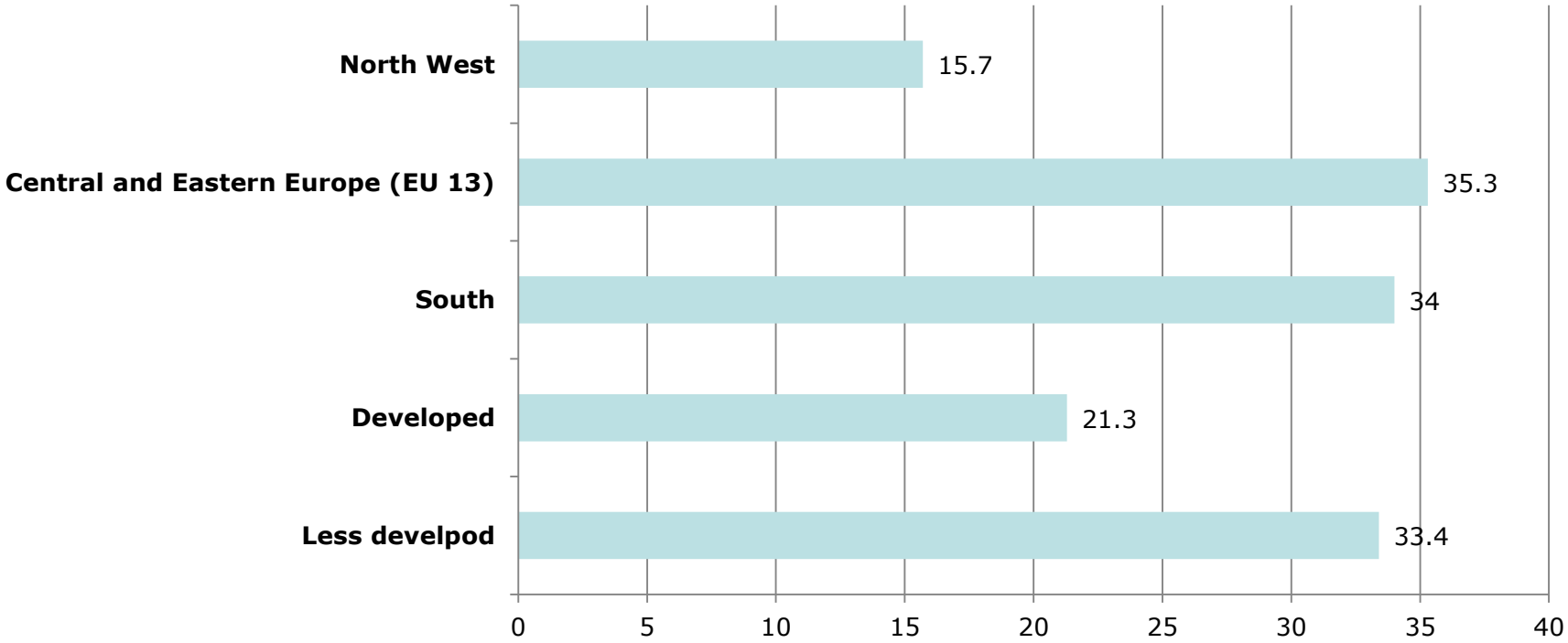
Table 1. Reported importance of different policy areas for implementation of smart specialisation strategies in less developed and more developed regions: Percentage of respondents assigning highest importance (a score of 7 from scale of 1–7).

Policy area	All Regions	Less Developed	More Developed	Northwestern Europe	Southern Europe	CEE (EU13)
Education	16.2	25.0	11.5	8.0	20.0	24.2
Vocational training	12.5	17.1	8.2	6.0	12.2	23.5
Research and science	42.8	47.2	37.7	41.2	36.0	55.9
Innovation in firms	66.7	69.4	65.6	64.7	66.0	70.6
Infrastructure investments	13.8	19.4	13.1	7.8	14.0	20.6
Social innovation	15.3	25.7	14.3	7.8	28.0	9.1

Source: Vallance, P, Blazek, J, Edwards, J and Kveton, V (2017) Smart specialisation in regions with less-developed research and innovation systems: A changing role for universities? Environment and Planning C: Politics and Space

Universities protect their own interests

(Score of six or seven out of seven)



Source: Vallance, P, Blazek, J, Edwards, J and Kveton, V (2017) Smart specialisation in regions with less-developed research and innovation systems: A changing role for universities? Environment and Planning C: Politics and Space

Contribution of universities to S3

Generative

Research related (but not limited) to regional priorities

Multi- and cross- disciplinary

Connectivity – knowledge nodes

Support regional analysis

Absorptive

Help build capacity to ensure local firms absorb knowledge

Provide demand through teaching and learning activities

Nurture social ties that drive RIS

Collaborative

Neutral regional brokers

Reach Out – need 'boundary spanners'

Reach In – Co-production of knowledge

Leadership

Support regional vision and partnership

Propose joint activities

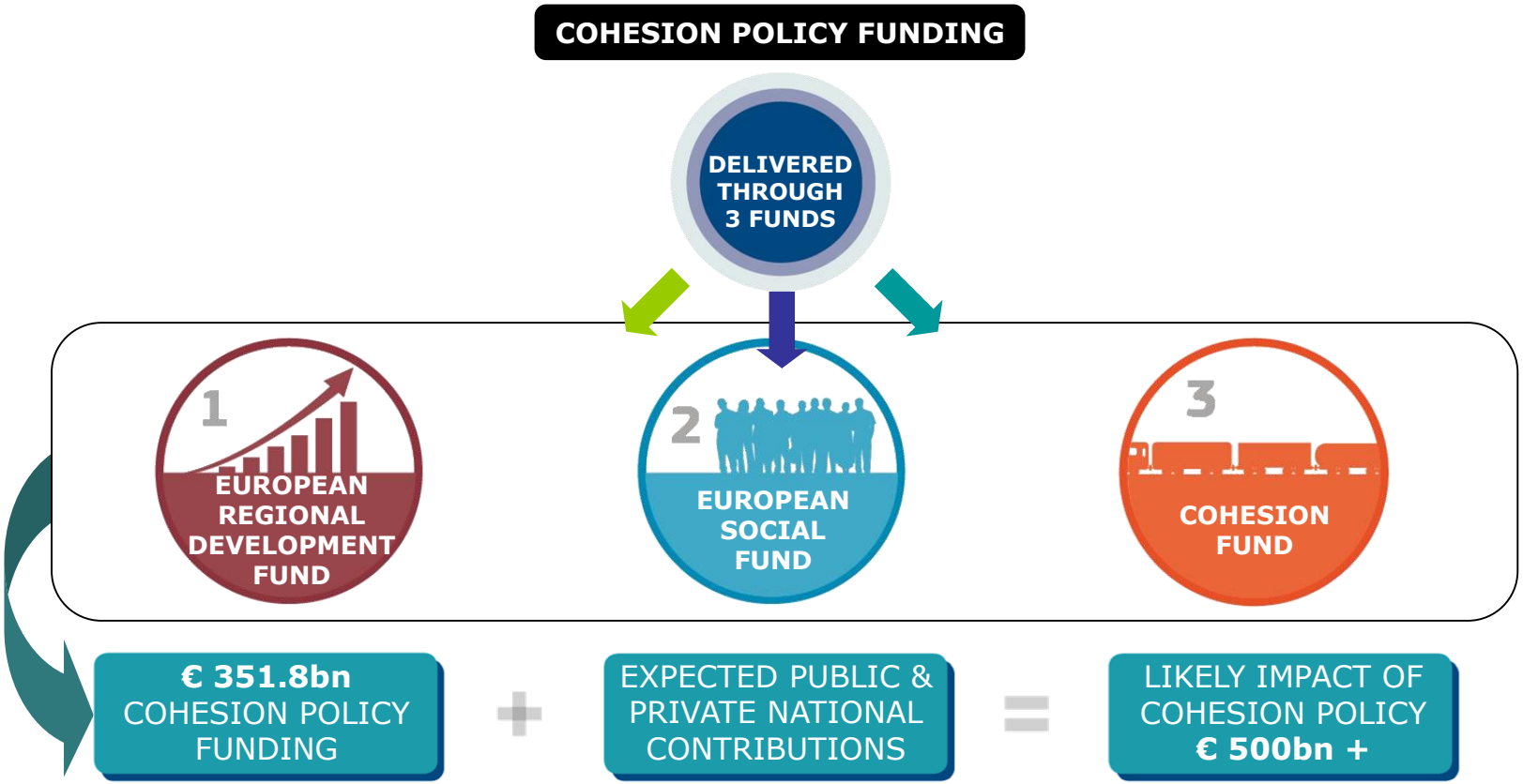
Place marketing

Source: Based on **Kempton et al** (2013) Universities and Smart Specialisation, JRC S3 Policy Brief #3, European Commission

HEIs and Regions – What has changed with smart specialisation?

Element of S3	Impact on HE
Prioritisation around limited number of economic activities	Evolution of curricula and research portfolios to emerging priorities Redefinition of 'third mission'
Entrepreneurial Process of Discovery (EDP)	Greater focus on applied research Horizontal skills among graduates
Innovation for all regions – Place based approach	Greater role in regional governance Different models of HE engagement
Broader understanding of innovation	Respond to regional challenges
Focus on monitoring	Role for social sciences

3 funds to invest in growth and jobs



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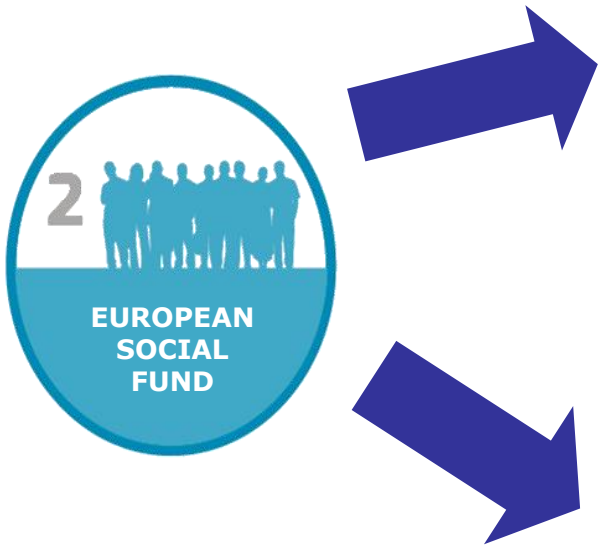
Implementing S3 through ESF



Thematic Objective 10 (Art 3.1) €23.257 Billion

Investing in education training, vocational training and vocational training for skills and lifelong learning

Four Investment Priorities:

- Primary and secondary education (€6.381)
- Tertiary education (€4.676)
- Lifelong learning (€6.149)
- Labour market relevance and VET (€6.050)

R&I Secondary Objective (Art 3.2) €1.611 Billion

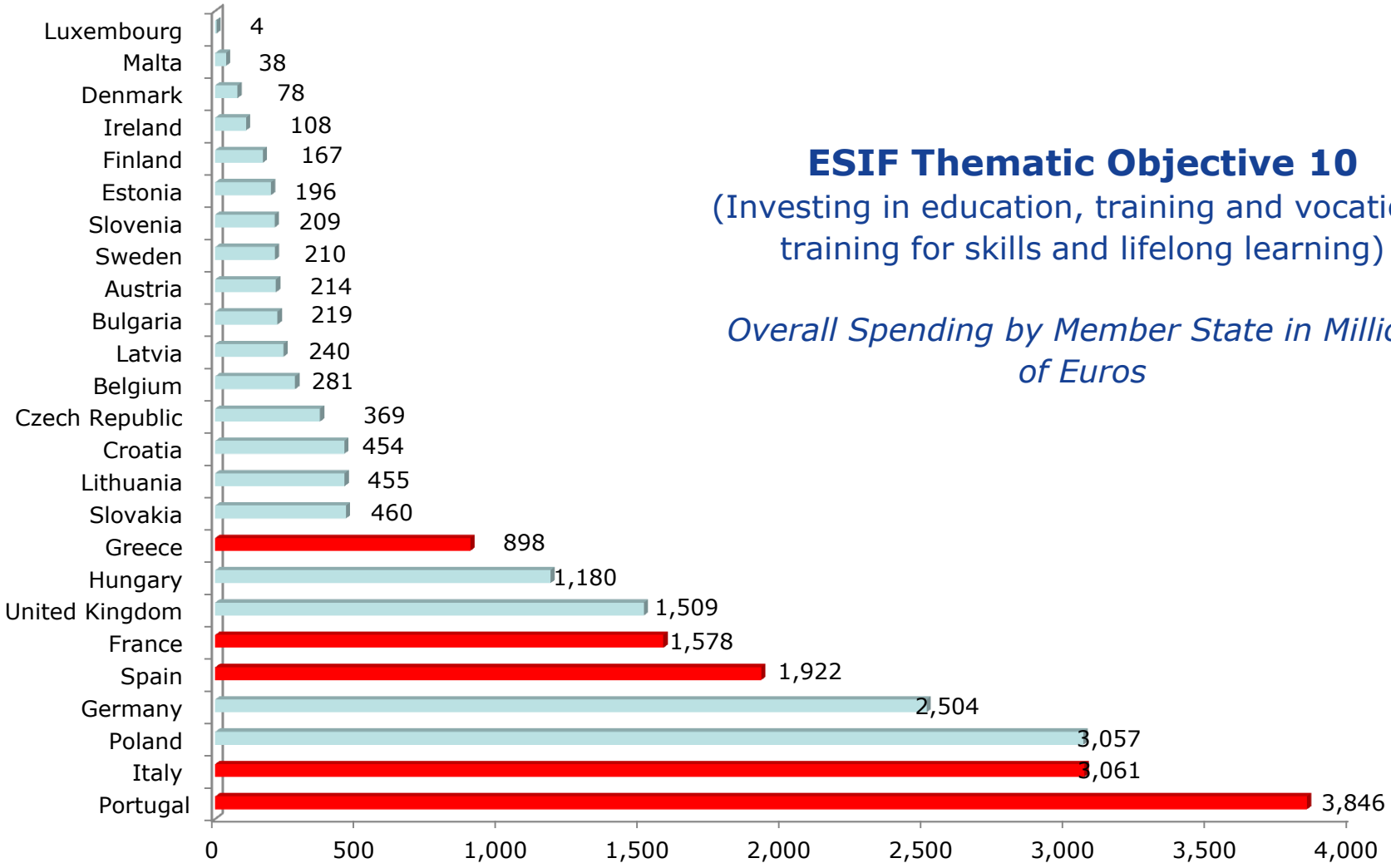
Strengthening research, technological development and innovation through the development of post-graduate studies and entrepreneurial skills, the training of researchers, networking activities and partnerships between higher education institutions, research and technological centres and enterprises

European Commission

ESIF Thematic Objective 10

(Investing in education, training and vocational training for skills and lifelong learning)

Overall Spending by Member State in Millions of Euros



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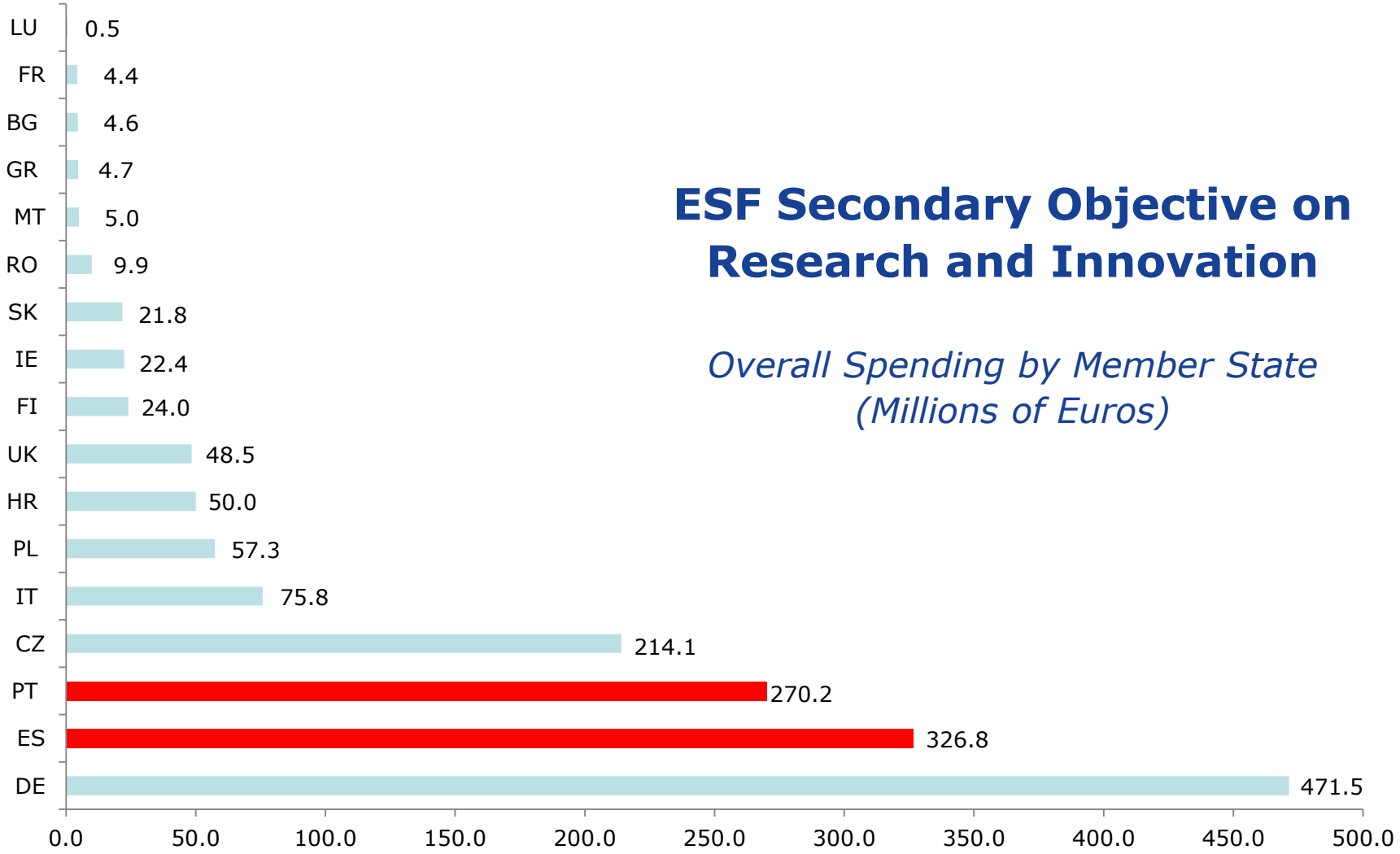
ESF Secondary Objective on Research and Innovation

Overall Spending by Member State (Millions of Euros)



Portugal: Examples of calls for proposals

Regional OPs with S3 selection criteria:

- Cursos Técnicos Superiores Profissionais (TeSP)
- Cursos de Especialização Tecnológica– Linked to S3
- Formação Avançada – Programas Doutorais

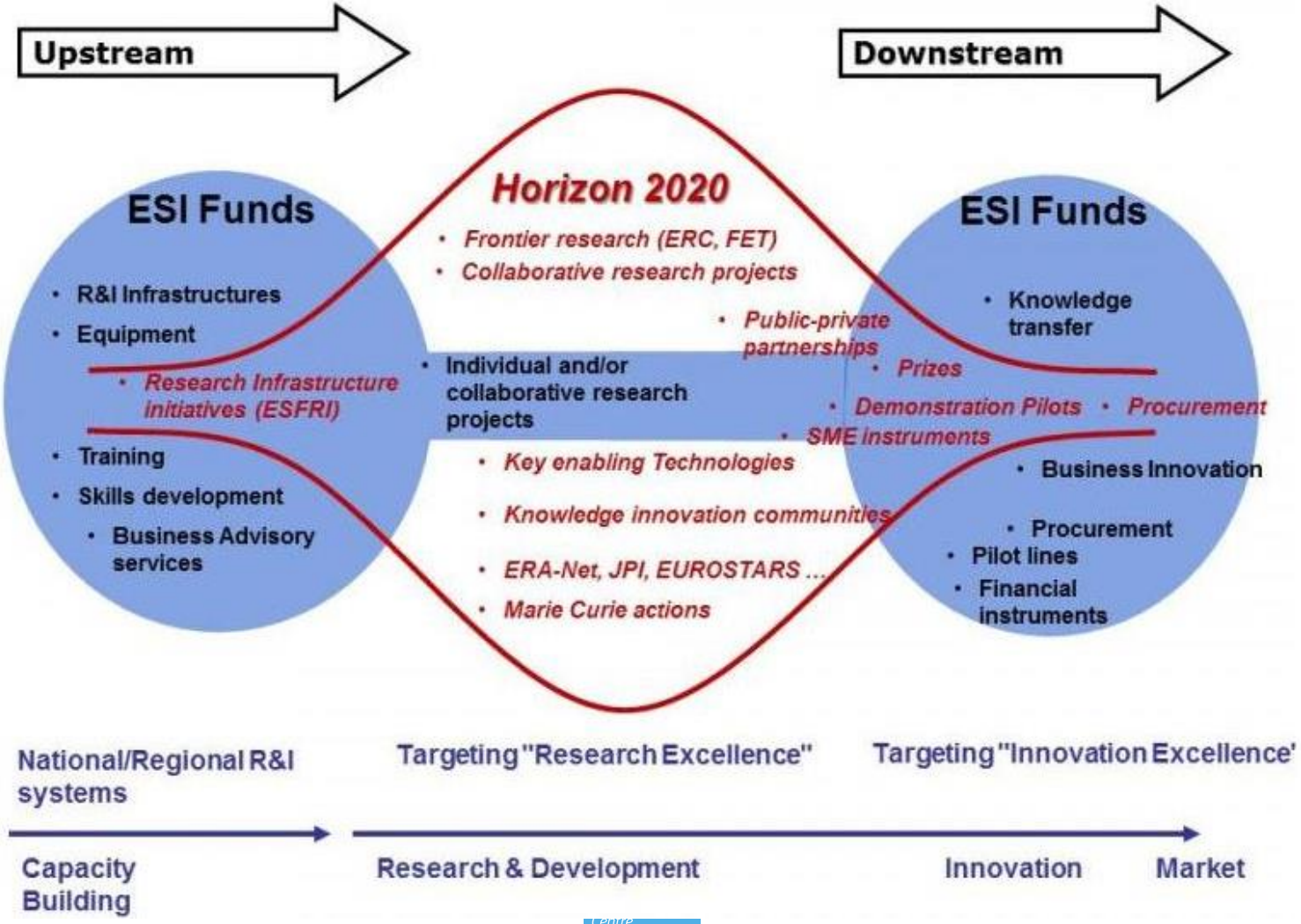
Regional OPs without S3 selection criteria:

- Programa+ Superior – Not linked to S3

National OP with S3 selection criteria:

- Bolsas Individuais de Doutoramento e pós-Doutoramento

Synergies concepts



The HESS project

- Launched by the S3 Platform in March 2016, in cooperation with DG Education and Culture
- The S3P is an analytical, advisory and networking hub for countries and regions in the design and implementation of Smart Specialisation Strategies (S3)
- Managed by the Joint Research Centre (JRC) from Seville
- Synergies with JRC activities: Lagging regions, Stairway to Excellence
- Synergies with DG EAC initiatives: UB Forum, Knowledge Alliances, HEInnovate…
- Synergies with Knowledge and Innovation Communities (KICs)
- More info: http://s3platform.jrc.ec.europa.eu/hess

HESS Core Objectives

- Integrate Higher Education and the Knowledge Triangle into S3 policy mix
- Promote synergetic use of ESIF and other public funds to incentivise HEIs
- Strengthen the position of HEIs in S3 governance structures

HESS Secondary Objectives

- Promote cooperation between HEIs and other actors in the quadruple helix at regional level
- Champion reform within HEIs to make them more entrepreneurial and engaged in S3

HESS Menu of Methods

Background analysis (S3 policy mix, ESIF, HE system, regional context)	Leadership workshop with HEI managers	Exploratory visit
Interviews with HEI managers	Peer review with other regions	HEInnovate tool
Mapping of governance system	Workshop with industry and civil society	Project Development Labs

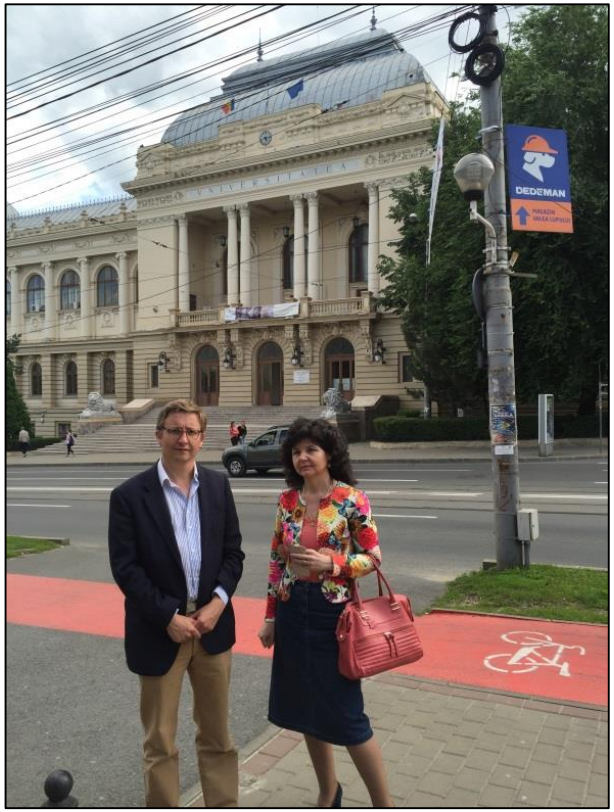
Action research in selected European regions

Two pilots in 2016-2017:

- Navarra, Spain
- North East Romania

Three more in 2017:-2018

- Puglia, Italy
- Centre Val de la Loire, France
- South Moravia, Czech Republic (tbc)



HESS I Action Research

- No structured relationship between RDAs and HEIs around S3, nor between HEIs in HE systems
- Power asymmetries shape relationships
- Combination of interests and institutional obstacles that focus attention on research, neglecting human capital
- Win-win solutions can be found – Here that transnational learning has most potential
- Specialised curricula more important in less developed regions?
- Links between HE and VET essential
- No single model of a university in S3

Words of caution…..

- HE systems and regional development work independently of each other
- Large differences in ability of regions to influence HE
- Regions less interested than HEIs
- HEIs often act as rent seekers
- Competition within HE system
- Resistance among staff

Where are we going?

- Action research in three regions starting 1 July 2017
- 4-5 more regions in a third phase of HESS starting on 1 July 2018
- Database of good practice in terms of partnerships and funding
- Strengthen links to EIT-KICs, OECD Education and other partners.
- Build a Community of Practice: https://www.linkedin.com/groups/8515982
- Cooperation within the European Commission to understand how human capital can be better integrated into MFF post 2020
- Communications to be published in June on Smart Specialisation (REGIO/JRC/GROW) and Renewed Agenda for Higher Education (EAC) – both mention HESS!

Thank you !

Web: http://s3platform.jrc.ec.europa.eu/hess

HESS Linkedin group: https://www.linkedin.com/groups/8515982