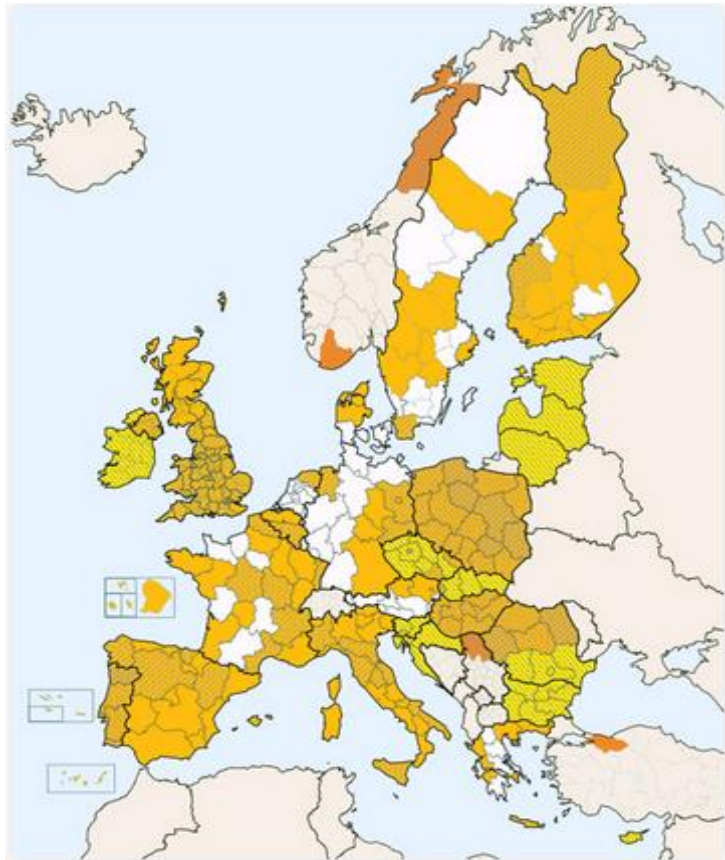


Smart Specialisation and The S3 Platform



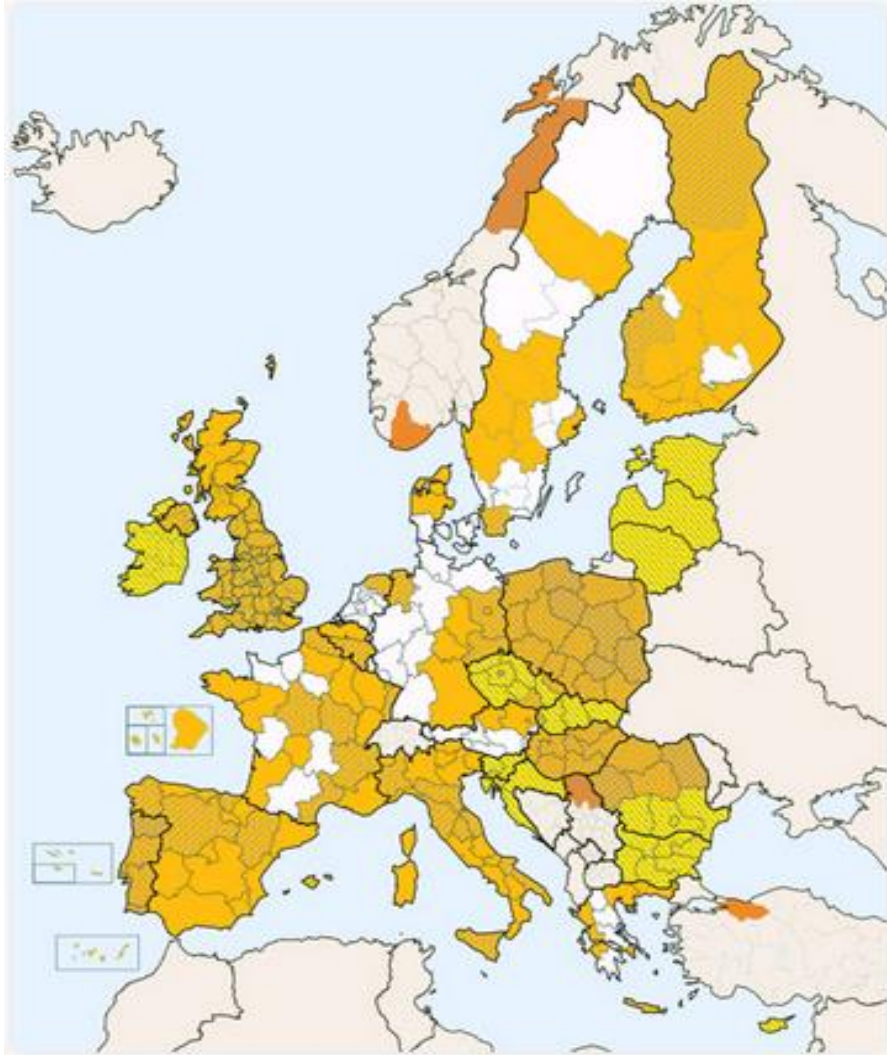
Study visit – Østlandssamarbeidet 9 February 2015

Inger Midtkandal,
S3 Platform

Joint Research Centre (JRC)

The European Commission's in-house science service

The S3 Platform



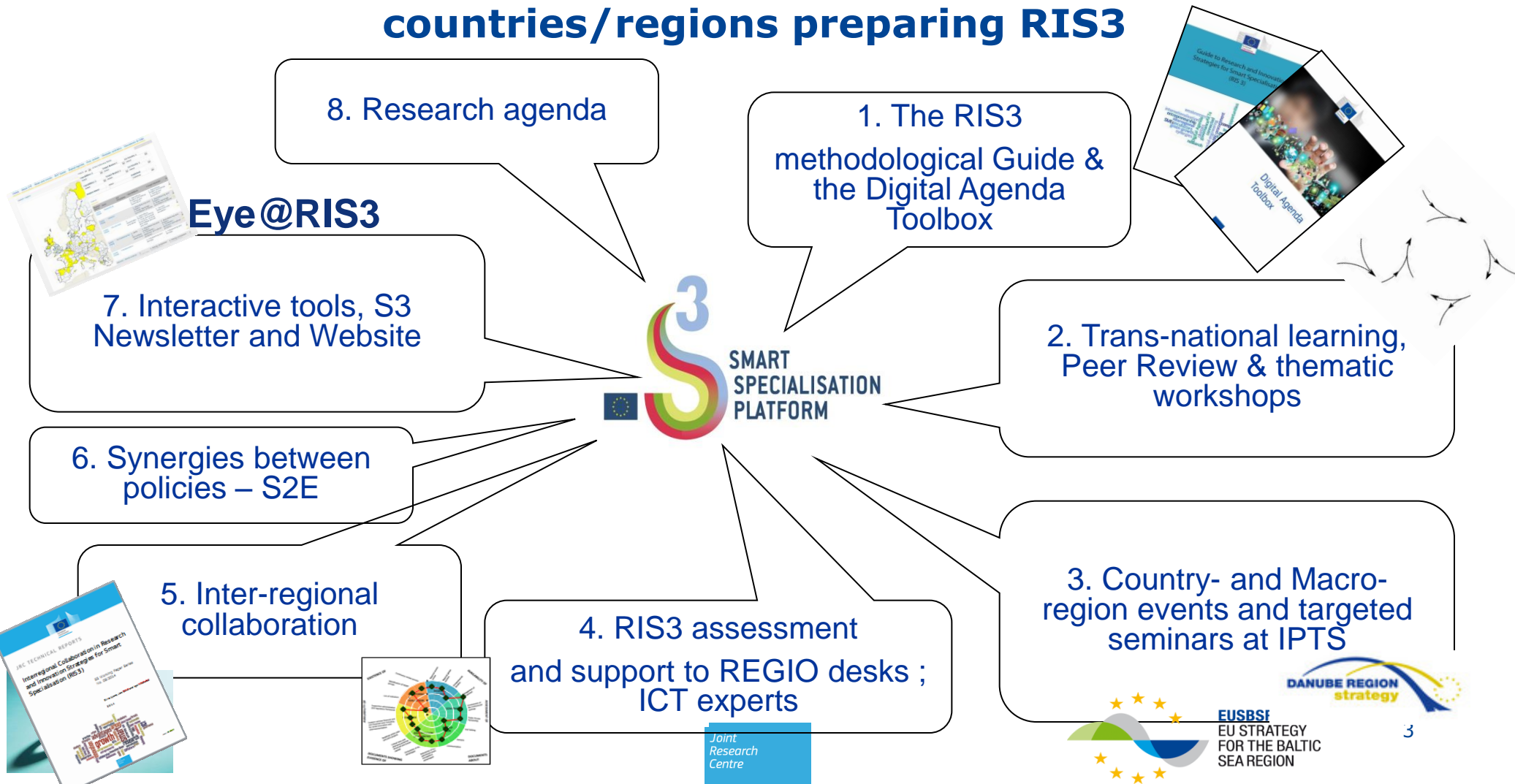
- Created in 2011 to provide science-based professional advice to EU national and regional policy-makers for the establishment and implementation of their RIS3, make better use of the ESI Funds and thus contribute to the Europe 2020 goals.
- Managed by JRC-IPTS in Seville in the frame of a wider EC effort including DG REGIO, RTD, ENTR, EAC, CNECT, ENER, AGRI.

EU Countries registered: 15

EU Regions registered 154

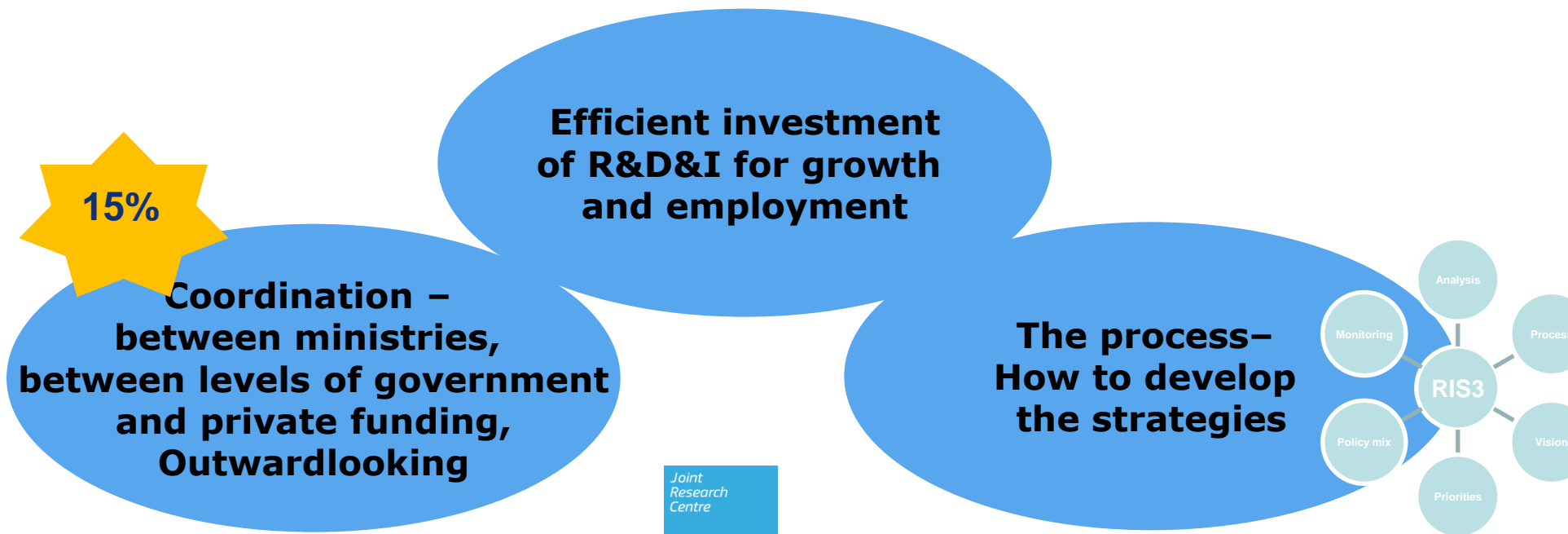
Non-EU Regions registered: 5

Main activities of S3 Platform in support of the countries/regions preparing RIS3



RIS3 "Research and innovation strategies for smart specialisation" is a dynamic and evolutionary process – "not a structure"- deeply grounded in **an entrepreneurial discovery process** (not a one-off action) where Governments are rather facilitators...than in a position of command and control.

RIS3 is for...
innovation leaders **and** for those lagging behind !



Do it through a "RIS3" approach:

ANALYSIS: discovery of the socio-economic and research-innovation engines of regional growth, competitive advantages & weaknesses.

PROCESS: governance, stakeholder involvement, institutional setting.

VISION/GOAL/OBJECTIVES: common goals for the future.

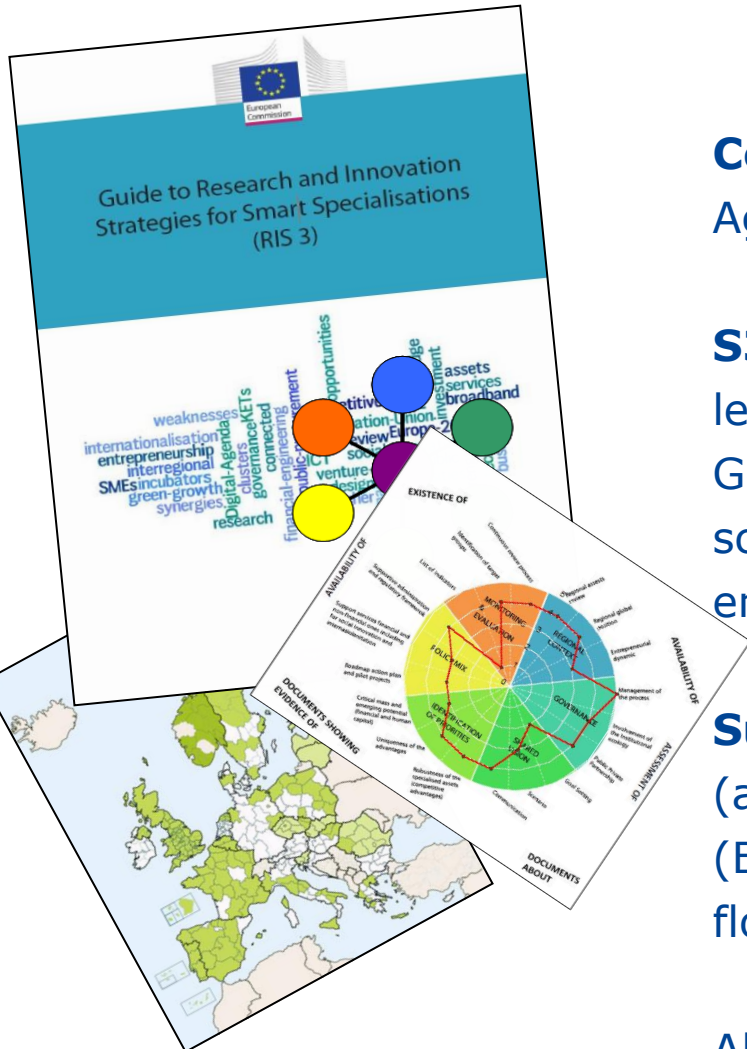
PRIORITIES: search and selection of activities & projects & actions & technological areas to focus on.

POLICY MIX: policy mechanisms and instruments - social, industrial, innovation, labour, research, development.

MONITORING: selection indicators and evaluation process.



Guidance – analysis – supporting tools



Comprehensive guidance tools – RIS3 Guide, Digital Agenda Toolbox, FAQs

S3 Publication series - Policy briefs co-authored with lead academics (Foray, Boschma, Rodriguez-Pose, Goddard) and practitioners; Working papers providing scientific analysis to contribute to conceptual and empirical developments related to smart specialisation

Supporting tools developed on: RIS3 self-assessment (assessment wheel); regional RIS3 priorities (Eye@RIS3), regional benchmarking, bilateral trade flows

Peer review of S3

- Own methodology inspired by trans-national mutual learning objective and: (i) exchange of roles; (ii) concentration in space and time; (iii) mix of peers and experts; (iv) focus on questions defined by countries/regions under review
- No. of peer-reviews workshops: 18 (from Jan 2012 to Feb 2015)
- Peer reviewed regions: 53
- Peer reviewed countries: 16
- Average no of regions/countries present at each workshop: 25
- Average participants at each workshop: 56

<http://s3platform.jrc.ec.europa.eu/peer-review>



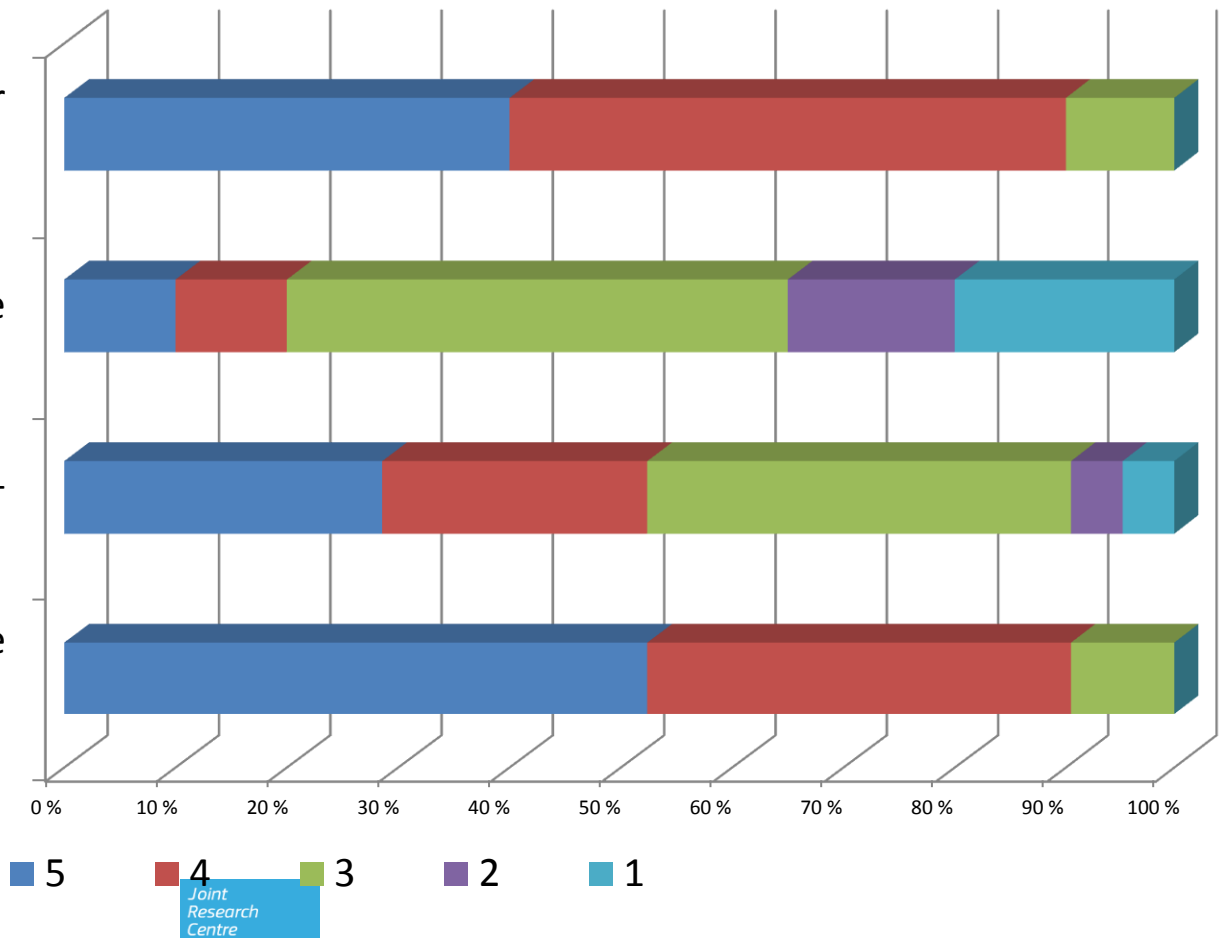
Impact of the peer review exercise (Survey 2013 Q4)

All in all, how useful was it for your region or country to take part in the Peer Review exercise?

...it made us change substantially how we work with the RIS3 process

...it made us introduce changes in the on-going RIS3 process

...it was an interesting exercise which made us more conscious of the elements in the RIS3 process





S3 Platform – Thematic activity

Development of mutual learning and sharing tools with respect to the implementation of S3 and the alignment of innovation roadmaps across Europe.

Combination of top-down and bottom-up needs/wishes – regions, countries, EU funded trans-national initiatives, EU macro-regions, stakeholders, etc.

Across the actors of S3: Universities (with EUA); Science parks (with JRC and IASP); SMEs (with UEAPME and EURADA); RTOs (with EARTO)

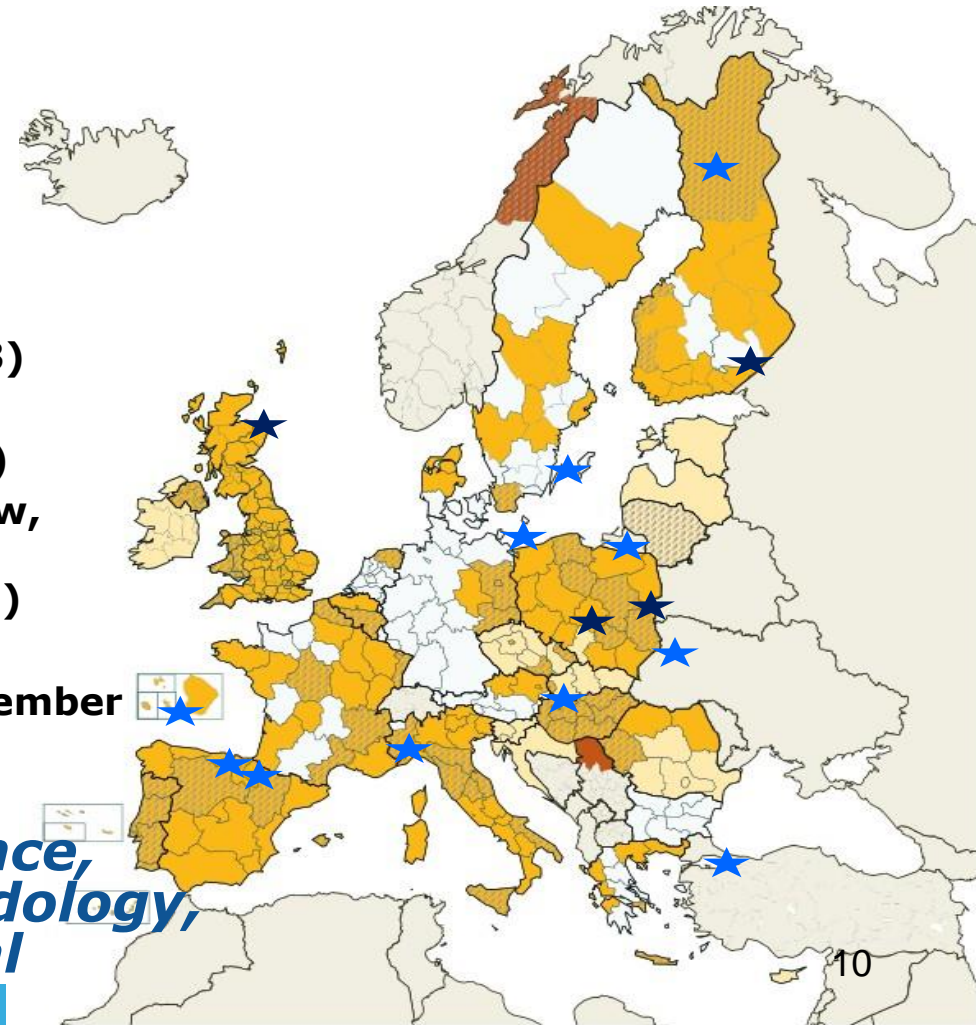
Across the S3 process: Entrepreneurial process of discovery; Governance; M&E; Priority setting; OP action plans; Co-ordination of national and regional level

Across regional features and aggregations: Macro-regional strategies (Danube; Baltic), Sparsely populated regions; Outermost regions; Rural areas

Across common S3 domains: ICT/Digital growth; KETs (e.g. advanced manufacturing); Energy (e.g. fuel cells & hydrogen); Value chains

Thematic workshops

1. Indicators (Groningen, Jan 2013)
2. Universities (Seville, Feb 2013)
3. ICT (Seville, Apr 2013) - Pilot
4. Agro-food (Murcia, Apr 2013)
5. Transport/logistics (Las Palmas, Apr 2013)
6. Tourism (linked to peer-review, Faro, Jul 2013)
7. Rural regions (Fundão, Oct 2013)
8. Advanced manufacturing (Brussels, Nov 2013)
9. Urban/rural relationship (linked to peer-review, Potsdam, Nov 2013)
10. Prioritisation in RIS3 (Norrköping, April, 2014)
11. Sparsely populated areas (June, 2014)
12. Entrepreneurial discovery process (Pisa, September 2014)



***Very different in structure, attendance,
focus Targeting RIS3 actors, methodology,
common priorities, common regional
features***

Connecting RIS 3 in the Baltic Sea Region

April 13: Vantaa

Nov 13: Malmö

- Getting Smarter together in the Baltic Sea Region

- eHealth, Smart Cities and Open session
- Results: 12 working groups on concrete proposals

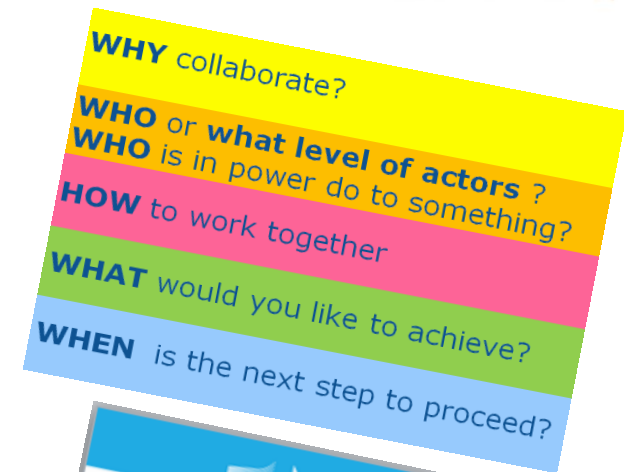
Oct 14: Jurmala

Dec 14: Vilnius

- Connecting RIS3 in the Baltic Sea Region

- Health Technology, Smart Cities, Creative industries and Open Session
- Aligning EUSBSR PA Innovation and Connecting the RIS3

2015: Tallinn?



Collaboration across borders

Facilitating mutual learning and knowledge sharing ... **making smart specialisation priorities even "smarter"**

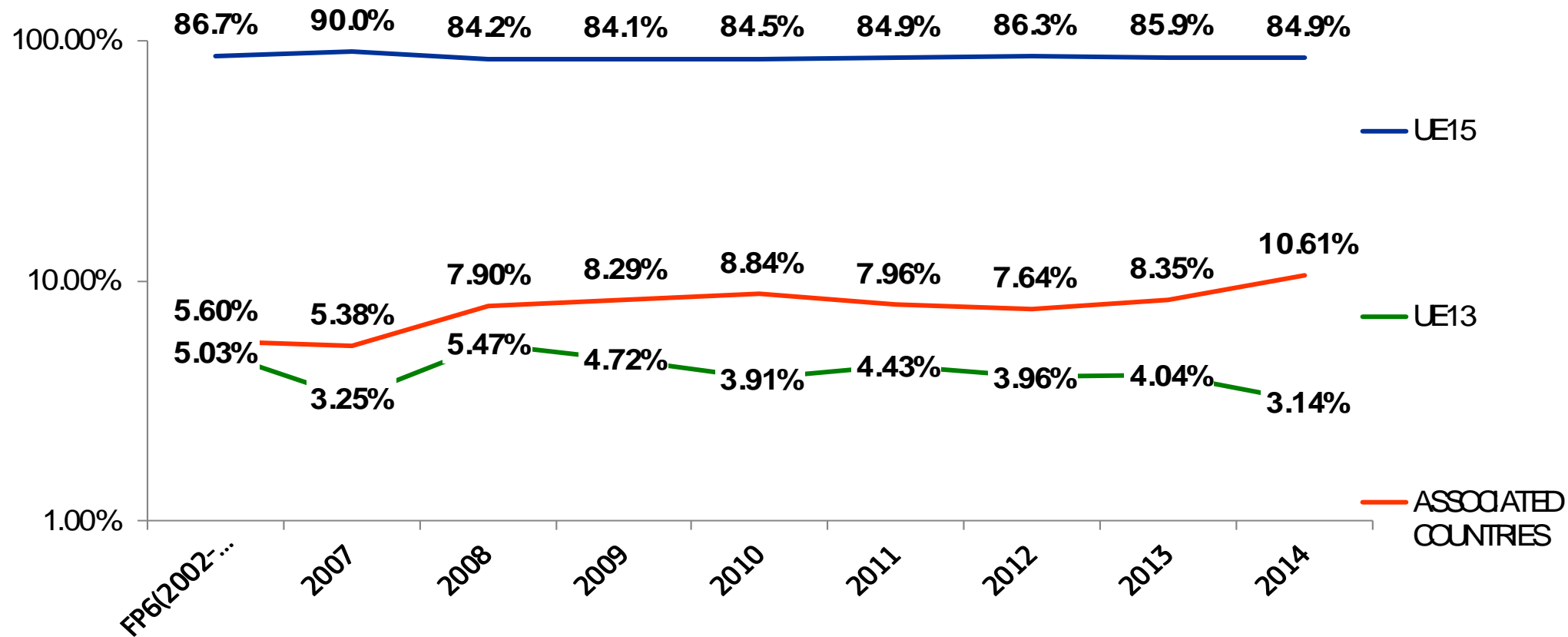
Alignment of roadmaps

- Fostering **alignment** between European, national and regional innovation roadmaps
- Promoting **synergies** and co-investment opportunities (e.g. in the context of Horizon 2020 and the “stairway to excellence”)
- Support the creation of groups around **common themes** to work with territorial co-operation strand of the EU cohesion policy
- A specific **focus** on EU macro-regional strategies



Where do we Stand?

Share of EC FP7 contribution received between 2007 and 2014
(starting from FP6)

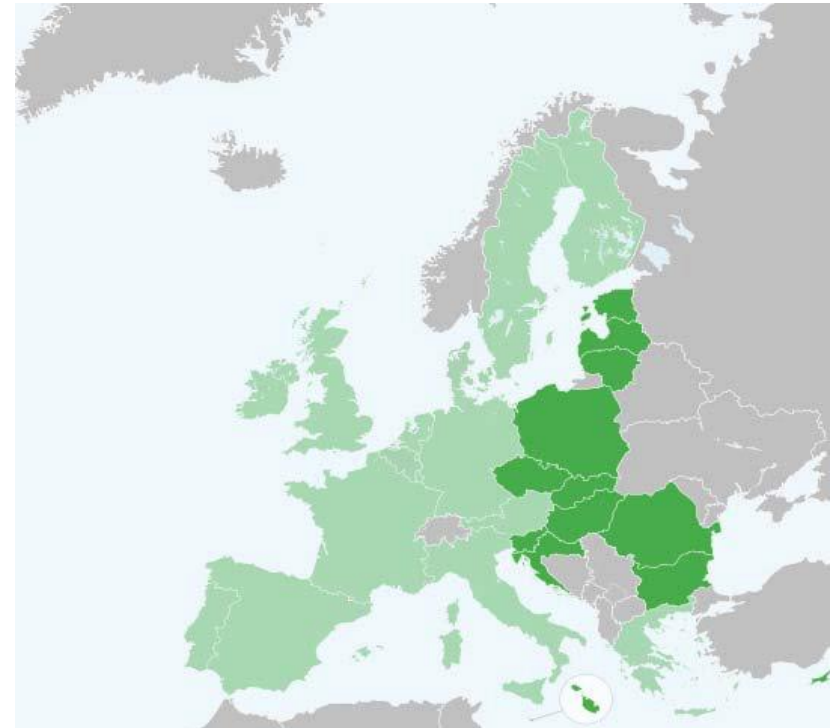


Stairway to Excellence (S2E) Project

Support to enhance the value of two key European Union (EU) funding sources for RDI (ESIF and H2020) by promoting their combination.

Two main objectives:

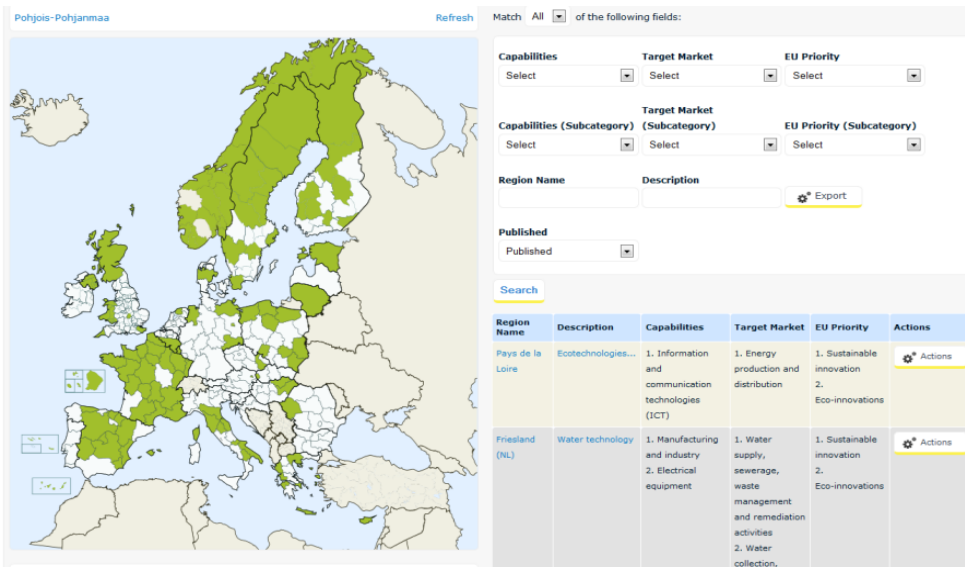
1. Assistance to regions and countries that joined the EU since 2004 (EU13 – New EU Member States) in closing the innovation gap, in order to promote excellence in all regions and EU countries
2. Stimulate early and effective implementation of national and regional Smart Specialisation Strategies.



Eye@RIS3 – an online database for S3 priorities

Enables regions to position themselves, and to seek out potential partners for collaboration

- Data from regional and national RIS3 strategies
- Four dimensions, short text descriptions, connections to EU policies, regional capabilities and target markets
- Not perfect matches, but an easy to use tool to give initial indications
- Approx. 900 regional priorities
- Consulted 57,000 times in 2014



The screenshot shows the Eye@RIS3 interface. On the left is a map of Europe with several regions highlighted in green. On the right is a search filter section with the following fields:

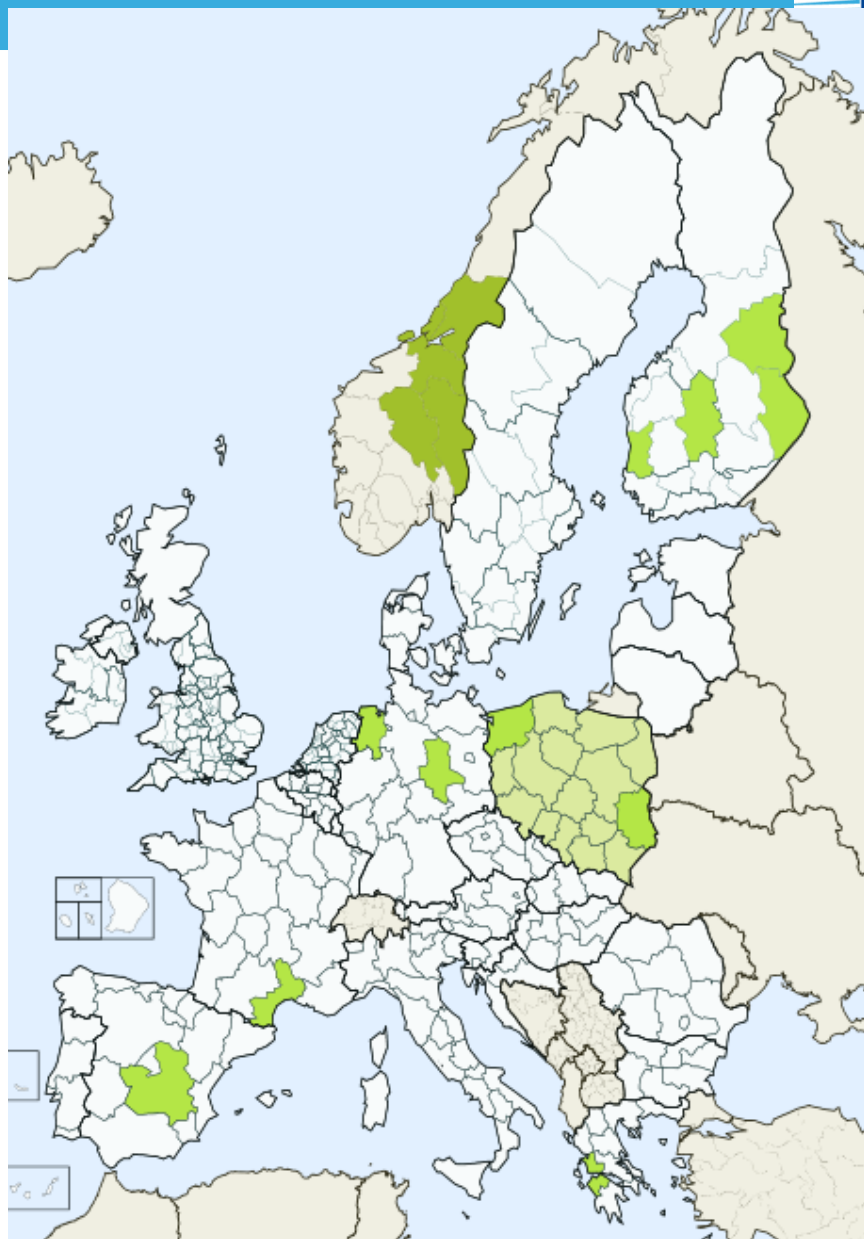
- Match: All (dropdown)
- of the following fields:
- Capabilities: Select (dropdown)
- Target Market: Select (dropdown)
- EU Priority: Select (dropdown)
- Capabilities (Subcategory): Select (dropdown)
- Target Market (Subcategory): Select (dropdown)
- EU Priority (Subcategory): Select (dropdown)
- Region Name: [text input]
- Description: [text input]
- Export: [button]
- Published: [dropdown]
- Search: [button]

Below the filters is a table with the following columns: Region Name, Description, Capabilities, Target Market, EU Priority, and Actions.

| Region Name | Description | Capabilities | Target Market | EU Priority | Actions |
|------------------|--------------------|--|--|---|-----------|
| Pays de la Loire | Ecotechnologies... | 1. Information and communication technologies (ICT) | 1. Energy production and distribution | 1. Sustainable innovation 2. Eco-innovations | [Actions] |
| Friesland (NL) | Water technology | 1. Manufacturing and industry 2. Electrical equipment | 1. Water supply, sewerage, waste management and remediation activities 2. Water collection, | 1. Sustainable innovation 2. Eco-innovations | [Actions] |



European
Commission



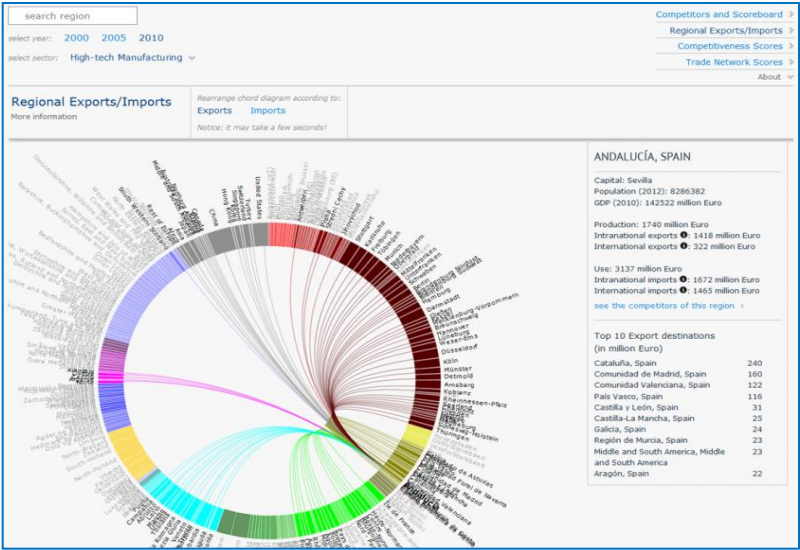
Bioeconomy

**Regions with
common
target priorities**

Source: Eye@RIS3

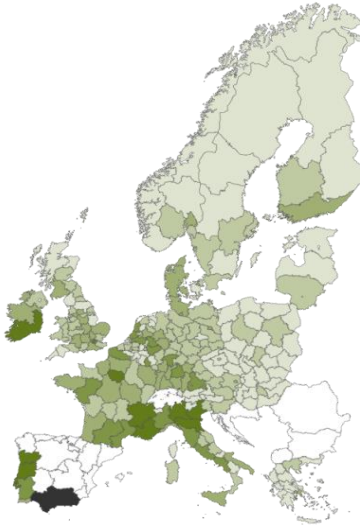


Inter-regional Trade and Competition Tool



In the visualisation the trade between 256 European NUTS2 regions and the trade of these Nuts2 regions with the rest of the world is shown. The lines in the diagram represent the value of the flow of goods between the exporter region and the destination region.

The revealed competition map shows which region competes internationally with whom, on what and where. Revealed competition is determined here as the degree of trade networks overlapping with those of their competitors.





European Commission

Benchmarking regional structure

In our methodological proposal, we define as reference regions those that share similar structural conditions relevant for innovation-driven development. That is, characteristics that cannot be easily changed in the short term and that are demonstrated to affect the way innovation and economic evolution take place in a region.

The comparison is not based on performance nor it is aimed to select "best performers" as peers. The idea is rather that (i) policy learning is most likely to be effective if your peers are similar to you, and (ii) you can learn both from others' successes and failures.

| DIMENSIONS | ELEMENTS | VARIABLES | SOURCES | YEAR | UNIT |
|---------------------------------------|---------------------------------------|---|-----------------------------|------|-----------------------|
| 1. Geo-demography | Regional size | Total Population | Eurostat | | 2011 people |
| | Ageing | Population >= 65 | Eurostat | | 2011 % |
| | Urbanisation | Population <15 | Eurostat | | 2011 % |
| | Accessibility | Pop. in urban and comm. areas | DG Regio | | 2006 % |
| 2. IHRHR educ. Level | IHRHR educational level | Pop. with upper secondary and tertiary ed. | ESFON | | 2006 0-100 index |
| | | | Eurostat | | 2012 % |
| 3. Technological specialization | Technological distribution (patents) | Electrical engineering | OECD REGPAT | | 2008-2010 % |
| | | Instruments | OECD REGPAT | | 2008-2010 % |
| | | Mechanical engineering | OECD REGPAT | | 2008-2010 % |
| | | Other fields | OECD REGPAT | | 2008-2010 % |
| | Technological concentration (patents) | GIHI index of 35 subfields | OECD REGPAT | | 2008-2010 0-100 index |
| 4. Sectoral structure | Economy's sectoral distribution | Agriculture, forestry and fishing (A) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Industry (except construction) (B-E) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Construction (F) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Wholesale and retail trade, transport etc. (B-I) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Information and communication (J) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Financial and insurance activities (K) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Real estate activities (L) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Professional, scientific and technical activities (M-N) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Public administration (O-Q) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Arts, entertainment and recreation (R-U) | Eurostat LFS ⁽¹⁾ | | 2012 % |
| | | Top of 5 subsectors (2 digits) (% total employment) | Eurostat SDB | | 2011 or closest % |
| | | Mining and quarrying (05-09) | Eurostat LFS | | 2011 % |
| | | Food, drinks and tobacco (10-12) | Eurostat LFS | | 2011 % |
| Textiles, apparel and leather (13-15) | Eurostat LFS | | 2011 % | | |
| Metal work and engineering (16-18) | Eurostat LFS | | 2011 % | | |

Benchmarking Regional Structure

Finding reference regions based on structural similarities

A key to build sound innovation strategies for smart specialisation at the regional level is to identify opportunities for learning policy lessons and transferring practices from other regions. But what are the regions one should consider as a reference for these purposes? Our proposal is to start by identifying regions that share similar structural conditions which are relevant for innovation-driven development (social, economic, technological, institutional and geographical characteristics). That is, characteristics that cannot be easily changed in the short term and that are demonstrated to affect the way innovation and economic evolution take place in a region. Below you will find an interactive tool that allows you to identify reference regions across Europe based on a methodology jointly developed by Orkestra – Basque Institute of Competitiveness and the S3 Platform.

Documents

- Methodological paper
- List of structural characteristics
- Regional NUTS codes

Interactive tool

region

Burgenland (at11)

number of peers

20

refresh

The 20 nearest regions to **Burgenland** (at11)

| | Distance index |
|---|----------------|
| Kärnten - Austria (at21) | 0.0116 |
| Tirol - Austria (at33) | 0.0197 |
| Provincia Autonoma Trento - Italy (itn2) | 0.0225 |
| Steiermark - Austria (at22) | 0.0226 |
| Oberösterreich - Austria (at31) | 0.0245 |
| Salzburg - Austria (at32) | 0.0247 |
| Niederösterreich - Austria (at12) | 0.0252 |
| Vorarlberg - Austria (at34) | 0.0273 |
| Umbria - Italy (itn2) | 0.0300 |
| Syddanmark - Denmark (dk03) | 0.0314 |
| Comunidad Foral de Navarra - Spain (es22) | 0.0319 |
| Cantabria - Spain (es13) | 0.0320 |
| Sjælland - Denmark (dk02) | 0.0343 |
| Poitou-Charentes - France (fr53) | 0.0347 |
| Bourgogne - France (fr26) | 0.0352 |

How it works

- Select a region in the top window
- Choose the number of reference regions you want to be displayed
- Press "refresh" to get the results
- A list of regions will appear on the right side of the screen sorted in descending order from the ones that are more similar (top) to the less similar (bottom) to the region selected
- The order is given by a synthetic index of structural distance (lower value=structurally closer to the selected region) explained in the methodological paper.

| | |
|-----------------|--------------------------|
| 2009 or closest | # employees |
| 2009 or closest | % |
| 2009 | 0-100 index |
| | 2012 standardized values |
| 2010 or closest | 1-4 index |
| 2010 or closest | 0-10 index |
| 2010 or closest | 1-9 index |
| 2010 or closest | 1-8 index |

compiled through a request to Eurostat.

Assessing EU cohesion policy programming documents

28 Partnership Agreements
Around 180 Operational Programmes dealing
with Thematic Objective 1 (R&I)

More than 500 intra- and
inter-service consultations

A comprehensive
view on ex-ante
conditionality requirements

Regional or national RIS3?

- Regional strategies only
FR, BE, NL, UK*
- National and regional strategies
ES, PT, PL, IT, EL, AT, DE
- National strategy with regional focuses/efforts
SE, FI, DK, CZ, SK, HU, RO (partially)
- National strategy only
LU, IE, LV, LT, EE, MT, CY, BG, SI, HR

Different Multi-level governance issues

Critical issues in the following...

- Implementation and Policy mixes
- Synergies and coordination
- Inter-regional collaboration in RIS3
- Monitoring and Evaluation for continuous priority setting

....which challenges the national and regional governance set ups



Novelties in implementation of RIS3

1. Governance of integrated policy mix beyond R&D policies

- Existing policy mixes are often accumulation of instruments over time and across policy domains and levels.
- From "silo"-driven to outcome driven policies

2. Overcoming path-dependency – Genuine prioritization of investments

- RIS3 requires screening existing policies with the perspective of new objectives and chosen priorities

3. Increasingly inter-related economies

- Not only R&I, but also internationalisation
- Connection of the regional economy with other part of value chain, do not stop at the administrative border
- Inter-regional partnerships and collaboration

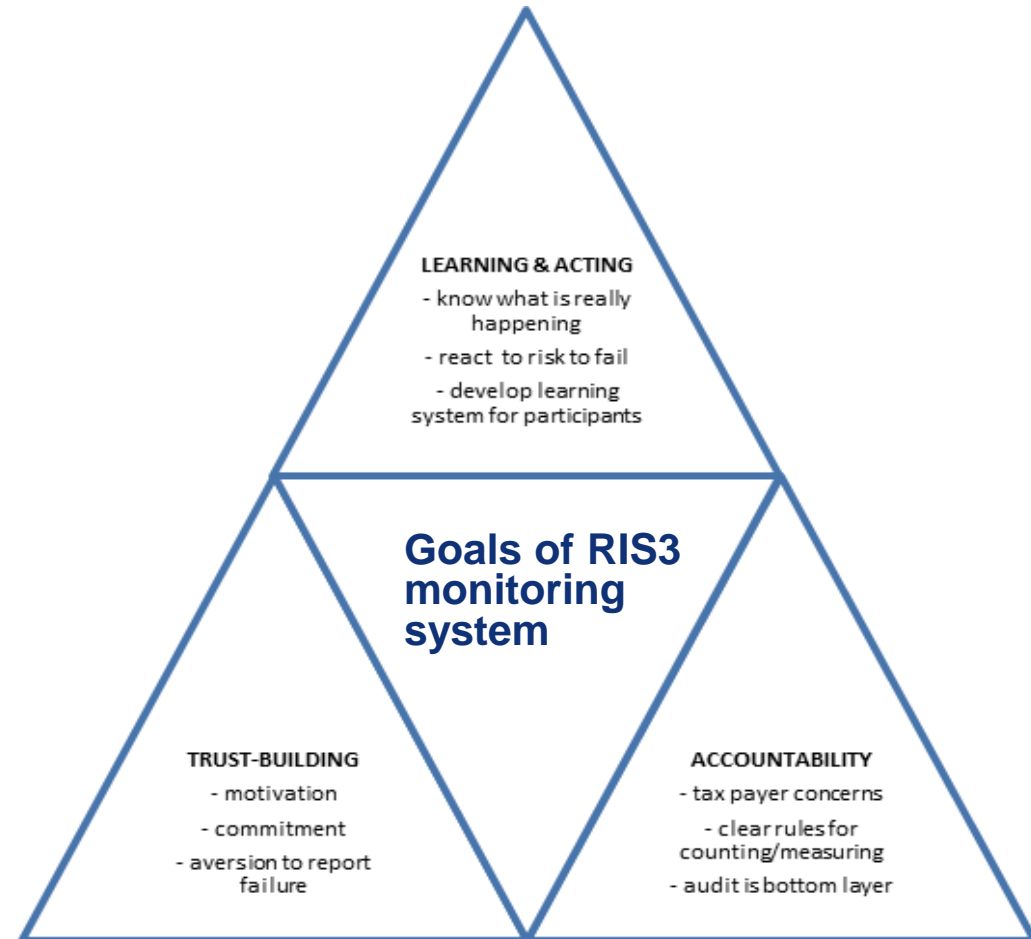
4. From administrative to strategic policy management

- Each priority area with target designed policy mix - break path dependency!?
- Long term investments
- Distinguish between horizontal and vertical policy instruments



Monitoring and Evaluation are crucial tools for success!

1. Inform about how transformation processes and what effects they are producing.
 - early warning system allowing to steer policy measures towards goals.
2. Condense and clarify the logic of intervention of the strategy.
 - helps people to understand the meaning and purposes of strategic actions and interventions.
3. Support stakeholder engagement and promote trust building.
 - provide the data base for easily understandable causal narratives of innovation processes.



Thank you!



<http://s3platform.jrc.ec.europa.eu>

JRC-IPTS-S3PLATFORM@ec.europa.eu

Inger.MIDTKANDAL@ec.europa.eu

What is Smart Specialisation?

- = **fact-based**: all assets + capabilities + bottlenecks in a region, incl. external perspective, cooperation potential, global value chains
- = no top-down decision but **dynamic entrepreneurial discovery process** uniting key stakeholders around shared vision
- = **all forms of innovation**, not only technology-driven, existing / new knowledge
- = **ecosystem** approach: creating environment for change, efficiency of institutions
- = **differentiation**: focus on competitive advantages, potential for excellence, emerging opportunities, market niches
- = **concentration** of resources on priorities, problems and core needs, for critical mass/critical potential
- = **synergies** across different departments and governance levels (EU-national-regional); cross-sector/technology links
- = **place-based economic transformation**: rejuvenate traditional sectors through higher-value activities