What is Smart Specialisation?

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

- focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development.
- build on each country/region’s strengths, competitive advantages and potential for excellence.
- support technological as well as practice-based innovation and aim to stimulate private sector investment.
- get stakeholders fully involved and encourage innovation and experimentation.
- are evidence-based and include sound monitoring and evaluation systems.
**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, at the level of activities - granularity
- **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 – NO Silos Thinking!
- **Place-based economic transformation:** rejuvenate traditional sectors through higher-value activities; aiming at developing a strategic approach to territorial development

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**Smart specialisation as a prioritisation process**

*S3 is about developing new specialities based on regional concentration of knowledge, competence and market potentials (dynamic)*

*S3 is NOT to be understood as a sector specialised or relative to other regions (passive)*

- **Sectoral level**
  - ICT
  - Energy
  - Advanced manufacturing

- **Activity level**
  - **Advanced manufacturing for energy related applications in harsh environment**
  - Modernisation
  - Transition
  - Diversification
  - Radical Foundation

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*Image credits: European Commission*
Smart specialisation outside the EU

- Based on expression of interest
- JRC support where possible
- Ownership and involvement needed

Framework for smart specialisation within E&I Action

1. MAPPING EXERCISE
2. ENTREPRENEURIAL DISCOVERY PROCESS
3. INSTITUTIONAL CAPACITY BUILDING
4. INSTITUTIONAL CAPACITY FOR IMPLEMENTATION
5. FINAL S3 STRATEGY
## Country progress: Ukraine, Moldova and Tunisia

<table>
<thead>
<tr>
<th>No.</th>
<th>Eastern Partnership</th>
<th>Southern Partnership</th>
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<td>Discussion with public administration</td>
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<td>0.5</td>
<td>Participation in S3 training</td>
<td>X</td>
</tr>
<tr>
<td>0.6</td>
<td>Preliminary roadmap</td>
<td>X</td>
</tr>
</tbody>
</table>

1. Decision to start smart specialisation process

| 1.1 | Establishment of national S3 team | Changed | Changed |
| 1.2 | Agreement with PC | Informal | Informal |

2. Analysis of strategic mandates

| 2.1 | Overview of existing policies and priorities relevant for S3 | X |
| 2.2 | Decision of plans of S3 in the strategic framework | X |
| 2.3 | Decision on the national/regional dimension of S3 | X |

---

## Country progress: Ukraine, Moldova and Tunisia

<table>
<thead>
<tr>
<th>No.</th>
<th>Country/Stage of the process</th>
<th>MO</th>
<th>UA</th>
<th>TN</th>
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<tbody>
<tr>
<td>1</td>
<td>Analysis of existing economic, scientific and innovation potential (quantitative)</td>
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<tr>
<td>3.1</td>
<td>Provision of statistical data</td>
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<td>3.2</td>
<td>Mapping of economic potential</td>
<td>X</td>
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<td>Started</td>
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<td>3.3</td>
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<td>Ongoing</td>
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<td>3.4</td>
<td>Mapping of scientific potential</td>
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<td>Experts, international trade</td>
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<td>Involvement of local experts</td>
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<td>X (03)</td>
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<tr>
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<td>Provision of experts and policy documents</td>
<td>-</td>
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<td>To be defined</td>
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<td>Report ready</td>
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<td>1st Stage</td>
<td>1st Stage</td>
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<td>Report consulted with stakeholders</td>
<td>X</td>
<td>September 2018</td>
<td>X</td>
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<tr>
<td>3.10</td>
<td>Report published</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</table>

4. In-depth analysis of priority domains (qualitative)

| 4.1 | In-depth interviews |    |    |    |
| 4.2 | Focus groups |    |    |    |
| 4.3 | Case studies |    |    |    |
| 4.4 | Candidates for EDP |    |    |    |
| 4.5 | Common panel organized |    |    |    |

5. Identification of stakeholders

| 5.1 | Specific analysis |    |    |    |
| 5.2 | Definition of EDP working groups |    |    |    |
Country progress: Ukraine, Moldova and Tunisia

<table>
<thead>
<tr>
<th></th>
<th>Country/ Stage of the process</th>
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<th>UK</th>
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<td>EDP training</td>
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<td>2.2</td>
<td>EDP plan and working rules</td>
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<td></td>
<td></td>
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<tr>
<td>2.3</td>
<td>EDP workshop</td>
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<tr>
<td>2.4</td>
<td>EDP output for S3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Design of monitoring, implementation and financing system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>Monitoring guidance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>Monitoring system designed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.3</td>
<td>Implementation guidance</td>
<td></td>
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<tr>
<td>7.4</td>
<td>Implementation system designed</td>
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<tr>
<td>7.5</td>
<td>Financing guidance</td>
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</tr>
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<td>7.6</td>
<td>Coordination with IFAS</td>
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<tr>
<td>7.7</td>
<td>Financing system designed</td>
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<td>8</td>
<td>Preparation of draft S3 strategy document</td>
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<tr>
<td>8.1</td>
<td>Draft S3 ready</td>
<td></td>
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<td></td>
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<tr>
<td>8.2</td>
<td>Draft S3 consulted with stakeholders</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Approval of the strategy</td>
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<td></td>
</tr>
<tr>
<td>9.1</td>
<td>JRC/EC approval</td>
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</tbody>
</table>

Why is the EDP essence of smart specialisation and how to do it well

European Commission
Systemic perspective

What can you change?

• Where is the critical mass?
• What is the target group?
• What are their needs?
• Who are the key players?
• What are the relations between them?
• How can you enhance knowledge spillovers?

Why is the EDP essence of smart specialisation and how to do it well

- Knowledge-based consensus
- Collaborative learning
- Evidence - informed discussion
- Transparent
- Systemic approach
- Focus on business needs
- Bottom-up
Key elements of EDP

- Right evidence-base
- Identification of relevant stakeholders
- Transparency and clear rules
- Consequence and trust building
- Managing hidden agendas
- Lasting involvement

Stakeholder groups: quadruple helix

- Business: manufacturing and services, primary sectors, financial sector, creative industries, social sector, large firms, SMEs, young entrepreneurs, students with business ideas, cluster and business organisations, etc.
- Research: public and private research bodies, universities, science and technology parks, NCPs, Technology transfer offices, Horizon2020 committee members, regional R&I roadmaps, etc.
- Entrepreneurial in composition and spirit: (risk-taking, broader view beyond boundaries ...)
- Different departments, if relevant at different government levels, agencies e.g. for regional development, business advice, public procurement offices, incubators, etc.
- NGOs and citizens initiatives related to societal challenges for which innovative solutions would be helpful, consumers associations, TalentS! etc.
- Public administration
- Civil society / Users
New approach to innovation policy

- Based on business needs
- Elastic and experimenting
- Iterative process building on lessons learnt
- Requiring interinstitutional coordination
- Requiring deep understanding of economic and R&D&I landscape
- Requiring ownership
- Based on dialogue and participation
- Incorporating interregional and international learning
- Elastic and experimenting

Thank you

Monika.MATUSIAK@ec.europa.eu
Entrepreneurial Discovery Process in Poland

Katarzyna Kaczkowska

Kharkiv, September 4-5, 2018

Poland – general context

• 16 regions – EU funded programmes both on national and regional level
• Smart specialisation, EDP – national & regional
• Process initiated in 2012, developed as conditionality for EU funds
**Diagnosis / Mapping – existing documents**

**Technology foresight InSight 2030**

- Objective: identify key technology areas (worldwide and PL competitive advantages)
- Methods: desk research, focus groups, expert assessment
- Broad involvement (industry, academia, administration), plenty of methods involved - focus on technologies and industry; rather top-down.

**National Research Programme**

- Objective: determine strategic areas of scientific policy
- Methods: desk research, expert groups, Delphi
- Well-known among academia, limited number of areas; - focused on research, less on industry.

**Cross-sectoral areas**

**Diagnosis / Mapping – existing data**

**Quantitative analyses**
- Exports;
- Industrial value added;
- Gross expenditure on R&D;
- Employment by industries;
- Share of sales income from new or significantly improved products;
- Inventions filed in Polish Patent Office and EPO; patents granted.

**Qualitative analyses**
- Clusters and co-operations;
- Projects funded from EU funds (both national and Framework Programme);
- Strategic projects in public R&D infrastructure (roadmap);
- Preliminary areas of regional S3.
Diagnosis / Mapping - outputs

- Quantitative analyses
- Qualitative analyses
- Workshops & consultations with stakeholders
- Workshops with regional institutions responsible for S3
- National Smart Specialisation (official document)
- Analysis of existing documents

Stakeholder dialogue – institutional framework

- Steering Committee
  - Representatives of 3 relevant ministries
  - Strategic decisions, coordination on national level
- Consultation Group
  - Representatives of ministries, agencies, other public institutions involved in support for RDI
  - Expert/advisory body, recommendations to SC
- Economic Observatory
  - Representatives of established businesses, BEIs, organisations
  - Analysis of RDI potential, trends, threats and opportunities
- Working Group for each S3 area
  - Representatives of business and academia
  - Responsible for monitoring of the area, recommending necessary policy mix, possible modifications in area definition
Stakeholder dialogue – reaching out

- Structured interviews:
  - with business, owners/CEOs;
  - areas: type of business, area of operations; innovative activity; decision-making process of the company;
  - whole country.
- Smart labs:
  - Grouping business / academia in a particular area (either narrower or cross-cutting the S3 areas);
  - Drafting development plans / recommendations for support;
  - Possible future S3 areas.
- Business Technology Roadmaps.

Stakeholder dialogue

- S3 areas have gained recognition as a conditionality for EU funds (only projects in one of the areas obtain financing / preference in calls).
- KIS is an open document – constantly updated based on:
  - Monitoring data (number of applications, number of successful applications; statistical data for each area);
  - EDP, in particular discussions within working groups;
  - Collected data;
  - Strategic programming;
  - Decisions of Steering Committee.
Stakeholder dialogue - outputs

• Sample results of EDP:
  • Adding new S3 areas;
  • Redefining / consolidation of areas;
  • Restructuring of EDP (smart labs => smart panels; streamlining the institutional structure of EDP)

Stakeholder dialogue – current form

**Institutional framework**

- Steering Committee
- Consultation Group
- Working Group for each S3 area

**Reaching out**

- Smart Panels – gathering evidence
  • Collecting data on a specific area (either within current or identified as potential specialisation area)
  • Existing data + interviews with companies

- Smart Labs
  • Groups of enterprises from the area
  • Objectives:
    • input to S3 (modification/broadening)
    • building project pipeline
Institutional capacity

• A clear leader of the process (one ministry/department responsible / contact point) – **PL: Ministry of Entrepreneurship and Technology**
• Close working dialogue between actors in the administration – **PL: three ministries as a core**
• Stable financing for the process – **PL: EU funds (a project devoted to S3).**

National-regional co-operation

**Exchange of best practice**
Workshops – regional & national authorities (WB project)

**Exchange of data**
• List of common indicators
• Exchange of data
• Planned – electronic tool for the aggregation and presentation of data for monitoring and evaluation of S3
Thank you for your attention!

Katarzyna Kaczkowska
Ministry of Investment and Economic Development

Katarzyna.kaczkowska@miir.gov.pl

Disclaimer: This presentation only reflects the views and opinions of the author. It does not present the official standpoint of the Ministry.
Entrepreneurial discovery process in Lithuania as a part of Smart Specialization

Ramojus Reimeris

MOSTA

LEGAL STATUS: Public institution
OWNER: The Office of the Government of the Republic of Lithuania

WHAT WE DO: monitor, evaluate and provide evidence-based recommendations regarding the implementation and process of:

- Vocational training
- Higher education
- Research
- Innovation
- Human resources
MOSTA

Challenges that we are currently working on:

- Monitoring and evaluation of Smart specialization
  Delivery of ongoing monitoring function. Yearly progress reports, interim evaluation, EDP.

- Evaluation of Science and Technology parks
  Activities of science and technology parks in Lithuania have insufficient impact. The aim of the evaluation is to propose guidelines for sustainable development.

- Research activity evaluation (Research assessment exercise, international benchmark)
  Piloted in 2015, the full scale research assessment exercise with 50+ foreign experts.

- Teacher demand forecast
  The scope of this ongoing project is to create and implement a teacher workforce forecasting model. The mismatch between the supply and demand in the teaching workforce affects the whole educational system and labor market for teachers.

- Medical doctor demand forecast
  Similar to teacher demand forecasting, but with different factors and conditions.

Generally speaking about RIS3

The concept of Smart specialization and it’s implementation reality had tremendous positive effects:

- The best shot so far to unify the concept R&I priorities in the EU (and beyond)
  A lot of decision makers and stakeholders from academia and business adopted similar understanding of the concept and similar vocabulary to describe preferences and taken actions.

- Leverage to change the culture of the (R&I) policy making
  As it came with strong analytical homework necessity and higher level of justification of decisions, it will have long-lasting effects on the evidence based policy making as well.

- Has initiated analytical approach to R&I policy cycle and a swarm of projects/tools/practices/etc.
  Transparency and accountability, interactive monitoring systems, constant sharing of good practices and solutions.
Smart specialization in Lithuania

Strategic goal:
Increase the impact (and share) of high value added, knowledge-intensive and highly-qualified labour intensive economic activities in the GDP by structural changes of the economy.

Objectives:
• Create innovative technologies, products, processes and/or methods and, using the outputs of these activities, respond to global trends and long-term national challenges.
• Increase competitiveness of Lithuania’s legal entities and their opportunities for establishing in global markets – commercialisation of knowledge created in the implementation of the Priorities.

Design of Lithuanian RIS3

1. Priority field
   Analysis of challenges, research potential and structure of economy

2. Priorities
   20 Priorities within 6 broad Priority fields
   In-depth analysis in every Priority field + expert panels

3. Roadmaps
   For every Priority (total 20 roadmaps)
   Expert panels + broad survey

4. Priority implementation programmes
   Developed according to roadmaps (total 20 programmes)
   Consultation with National expert institutions + implementing ministries
Analysis: research potential indicators

1. Research impact
2. International co-publications
3. Highly-cited publications
4. Access to national funding
5. Access to international funding though FP7
6. Doctoral student international activities
7. Post-doc activities
8. Student research activity
9. Marie Curie activities
10. Infrastructure
11. Local business grants
12. International business grants
13. Public-private co-publications
14. Innovation vouchers

Analysis: research potential

<table>
<thead>
<tr>
<th>RESEARCH AREAS</th>
<th>SCORE</th>
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<tr>
<td>Physics</td>
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<tr>
<td>Materials engineering</td>
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<tr>
<td>Chemistry</td>
<td>13</td>
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<tr>
<td>Biological sciences-Life Sciences</td>
<td>12</td>
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<tr>
<td>Earth and related Environmental sciences</td>
<td>10</td>
</tr>
<tr>
<td>Clinical medicine</td>
<td>10</td>
</tr>
<tr>
<td>Electrical, Electronic and Information engineering</td>
<td>7</td>
</tr>
<tr>
<td>Economics and Business Ind Management</td>
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<tr>
<td>Civil engineering</td>
<td>6</td>
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<td>Mathematics</td>
<td>5</td>
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<tr>
<td>Environmental engineering</td>
<td>5</td>
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<tr>
<td>Agriculture, Forestry and Fisheries</td>
<td>5</td>
</tr>
<tr>
<td>Basic medicine</td>
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<tr>
<td>Biological sciences-Natural sciences</td>
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<tr>
<td>Health sciences</td>
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<td>Food and beverages</td>
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<td>Sociology</td>
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<tr>
<td>History and Archaeology</td>
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<td>Arts (arts, history of arts, performing arts, music)</td>
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<tr>
<td>Social and economic geography</td>
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<td>Languages and Literature</td>
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<td>Philosophy, Ethics and Religion</td>
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<td>Computer sciences</td>
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</table>

Excellence in research

Collaboration with business

Emerging potential

Prospective

Top needs
Analysis: business potential indicators

Current competitiveness and specialization

1. Export growth
2. Value-added growth
3. Investments
4. Previously been priority sectors
5. Other

Potential for knowledge driven growth

1. Share of innovative firms
2. New-to-market products
3. R&D expenditure
4. International networks
5. Other

---

Emerging / niche

Knowledge driven sectors:
- From facilitation of radical innovation to support for commercialisation in world markets.
- Motor vehicles, buses and semi-trailers;
- Electrical equipment;
- Advertising and market research;
- Architectural and engineering activities;
- Insurance, reinsurance and pension funding.

Current cornerstones:
- Further technological upgrading;
  - Marine transport;
  - Land transport and transport via pipelines;
  - Water transport;
  - Crop and animal production, hunting, forestry and logging;
  - Chemicals and chemical products;
  - Food products, beverages and tobacco products;
  - Telecommunications;
  - Financial services.

Challenges ahead:
- Restructuring, new markets or products;
  - Textiles, wearing apparel, leather and related products;
  - Manufacture of other transport equipment;
  - Other non-metallic mineral products;
  - Fabricated metal products, except machinery and equipment.

Traditional sectors:
- Modernisation and strengthening knowledge based growth potential;
  - Manufacture of wood and of products of wood and cork;
  - Manufacture of articles of straw and plaiting materials;
  - Manufacture of furniture;
  - Construction;
  - Manufacture of paper and paper products.
### Formation of priority fields

<table>
<thead>
<tr>
<th>Priority field</th>
<th>Research potential</th>
<th>Business</th>
<th>Response to challenges</th>
<th>Connection with Valleys</th>
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<tbody>
<tr>
<td>Agro-innovation and food technologies</td>
<td>Prospective Users</td>
<td>*</td>
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<td>Nemunas</td>
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<tr>
<td>Energy and sustainable environment</td>
<td>Prospective Users</td>
<td>***</td>
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<td>Saulėtekis, Santara, Santaka, Nemunas</td>
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</tbody>
</table>

### Priorities

**Agro-innovation and food technologies**
- Safer food and sustainable usage of biomaterials
- Functional food
- Innovative development, improvement and processing of biological raw materials (biorefinery)

**Energy and sustainable environment**
- Smart systems for energy efficiency, diagnostic, monitoring, metering and management of generators, grids and customers
- Energy and fuel production using biomass/waste and waste treatment, storage and disposal
- Technology for the development and use of smart low-energy buildings – digital construction
- Solar energy installations and technologies for using them for the power generation, heating and cooling

**Health technologies and biotechnology**
- Molecular technologies for medicine and biopharmaceutics
- Advanced applied technologies for individual and public health
- Advanced medical engineering for early diagnostics and treatment

**Inclusive and creative society**
- Modern self-development technologies and processes promoting formation of creative and productive individuals
- Technologies and processes for the development and implementation of breakthrough innovations

**Novel production processes, materials and technologies**
- Photonic and laser technologies
- Functional materials and coatings
- Structural and composite materials
- Flexible technological systems for product development and fabrication

**Transport, logistics and information and communication technologies**
- Advanced electronic content, content development technologies and information interoperability
- ICT infrastructure, cloud computing solutions and services
- Smart transport systems and ICT
- Technologies/models for the international transport corridors’ management and integration of modes of transport
The case of Lithuanian EDP

- A planned process, with a beginning and an end
- An inclusive process
- Results in RIS3 priority recommendations
- Recommendations lead to inclusive intervention design and to more effectively framed policy instruments
- The process also helps to evaluate current R&I priorities

Goals of EDP

- Entrepreneurial knowledge
- Market opportunities
- Allocation of public goods
- Evaluation of previous R&I strategy

What? Where? On what conditions? What has worked previously?
Design of the panels and process

Thematic panel

Leader

6 research reps

6 business reps

2 public sector reps

Cross-thematic panel

Leader

Data

Data

Proposals

Decisions

Implementation

Approval

STI council

Government

Data Proposals

STI council

Approval

Decisions

Formalization

Government

Thematic panel

Leader

6 research reps

6 business reps

2 public sector reps

Cross-thematic panel

Leader

Data

Data

Proposals

Decisions

Implementation

Approval

STI council

Government

Data Proposals

STI council

Approval

Decisions

Formalization

Design of EDP

I round

Goal: to relate technologies and processes with challenges

Review of challenges

Review of potential

Consultation

II round

Goal: evaluate technologies and processes by research and business potential

Ranked list of technologies according to the response to the challenges

Ranked list of technologies according to the potential

Survey

Goal: rank technologies and processes, gather extra information

Short list

Priorities

III round

Goal: select the final list of priorities

IV round

Goal: prepare a roadmap for every priority

Priorities
Logic of roadmap + instruments

5. Generation of critical mass

4. Introduction to the market: final features of the technology (product, service, etc.)

Pool of instruments (example):
- Preparation of specialists (Ministry of Science and Education)
- R&D infrastructure (Ministry of Science and Education)
- Pre-seed capital

Risks of EDP

- **Incomplete appropriability** Something can be thought of not in full picture, resulting in fail to implement.

- **Lock-in**. Experts can protect their interests or fields of business/science, that does not qualify

- **Lobbying**. Experts can protect their interests or fields of business/science as more important than others

- **Fast pace of technology**. The time from idea to market (consumer) is getting shorter and is highly competitive.
The opportunity to change the culture of R&I policy making
Providing evidence for policy priorities

- Smart Specialisation Strategy model encompasses a series of actions that would support the right orientation of the political intervention for developing territorial innovation capacities

- Following the analysis and the lessons learnt from the JRC activity on innovation policies in the Enlargement and Neighbourhood countries, a number of major steps would need to be taken into account in the definition of a comprehensive innovation strategy
Providing evidence for policy priorities

• A comprehensive innovation strategy demands information on the situation of the economy, its specific characteristics and a sound analysis of regional strengths

• The analysis of this information will provide discoveries about the capacities and evolution of the different economic sectors, their linkages and the territorial variety

• This exercise would show how and where economic potential is placed, offering vital information about the actual relevance of the existing and emerging sectors

• This analysis is to be supported in the use of qualitative and quantitative evidence, as well as strategic intelligence

Providing evidence for policy priorities

• Policies requiring public spending, are better prepared to tackle the underlying challenges and to achieve relevant objectives if they are strongly rooted in evidence

• They should be grounded in a detailed diagnosis of the economic, scientific and innovative potential of countries and regions

• This evidence-based process allows a better definition of more explicit strategic models and also increases the capacity for involving relevant stakeholders

• Following this processes, the smart specialisation concept contributes to a more systematic and collective development of innovation strategies

• But, on top of it, Regional innovation systems will highly depend on the institutional capacity and in a robust governance
Analytical framework

- JRC provides a methodology and further guidance for this kind of exercise. This is implemented with international experts who work with local teams to build capacities, ensure ownership and guarantee the sustainability of the process.
- This methodology is enriched and adapted to the needs through a dialogue with the interested region.
- The level of detail in the analyses depends also on the availability of data.

[Table and diagram showing key indicators for smart specialization mapping, including types of data sources and preferred sources.]
Analytical framework

- **Scientific potential example / Moldova**

![Diagram showing the scientific potential example]

- The diagnosis of economic, innovative and scientific potential results in a set of preliminary priority domains that are based on matching strengths.

- Includes emerging fields and sectors with growth potential.

- Since part of the analysis is based only on ‘hard’ statistical data, it needs to be interpreted through qualitative assessment.

- The main inputs into qualitative analysis are obtained during individual and group interviews with experts and key stakeholders as well as through case studies.

- Only after such an interpretation is it possible to start the next stage of the strategy development, the Entrepreneurial Discovery Process.
Analytical framework

Key questions for qualitative assessment

- Why are the identified priority domains so strong?
- What are the sub-specialisations in each field
- What is the position of national/regional players in global value chains?
- Where is most value created in the value chain?
- What are the biggest challenges/opportunities/trends now?
- Who are the key players in the domains?
The uniqueness of the JRC approach derives from three components of the mapping methodology:

- **Making data available**
  - can be achieved by inviting relevant agencies or data management institutions (i.e., Statistical and Patent Offices) already in the early stages of the process to the co-ordination teams. This creates opportunities for discussion with international experts on the type of indicators needed and the appropriate level of their disaggregation.

- **Creating capacity building for the analytical exercise**
  - encouraging the creation of a local analytical team and employing an international expert to work together with them on a targeted approach.

- **Improving the transparency of policy-making**
  - by providing the industry- and stakeholder-specific interpretation of the results of statistical analyses and ‘hard data’. This is done by initiating discussions with stakeholders at the early stages of the mapping exercise and asking for their feedback.

Thank you!

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Qualitative and quantitative inputs to EDP – from evidence to participation

EXAMPLE OF POLAND – MAZOVIA REGION

From evidence to participation – process in Mazovia

1. Socio-economic analysis of the region (desk research)
2. Mapping, expertises, foresights, additional research on several issues
3. General consultation meetings (2)
4. Open consultation meetings (5) with key sector representatives
5. Open workshops in subregions (10)
6. One-to-one consultation meetings
7. Internet survey
8. Workshops
9. Meetings in Regional Centres of ESF on the subject of Smart Specialisation (6)
10. Meetings concerning social innovation in Regional Centres of ESF (6)
11. Open consultation meeting with clusters' members and coordinators, followed by one-to-one meetings
12. Public consultation and analysis of incoming proposals and opinions
13. Decision on 4 areas of regional smart specialisation
14. Working Groups for smart specialisation defining priority research agendas for smart specialisation areas
1. Socio-economic analysis of the region (desk research)

- Quantitative
- Analysis of statistical data (from statistical office, patent office, national ministries databases):
  - Structure of the regional economy: industrial sectors, service sector and creative sector
  - number of companies/innovative companies
  - employment (incl. number of researchers)
  - value added
  - export
  - scientific potential
  - patents
  - universities/research institutes
  - demographic situation
  - number of students
  - human resources in science and technology
  - geographical concentration and diversity

1. Socio-economic analysis of the region – results and problems

- the lack of data/sufficiently detailed information (industrial sectors, NUTS3 level)
- the inconclusive results
- the results “biased” by Warsaw or conflicting results on subregional level
2. Mapping, expertises, foresights, additional research on some issues

- Quantitative and qualitative
- Participation of external experts
- The review of external research, reports, expertises, foresights, rankings
- The additional studies:
  - Analysis of innovative sectors in the region
  - Analysis of R&D in the region
  - Analysis of the new technologies market in the region
  - Analysis of the sector of HighTech companies operating in the region
  - Study on the innovative potential of rural areas in the region
  - Research on the cooperation of the SME sector with research institutes/ centers in the region
  - Research on the impact of cluster initiatives on smart specialization of the region

3. General consultation meetings (2)

- Presentation of analysis, studies results and mapping
- Participants: regional/ economic development experts, representatives of universities/ research centres, representatives of entrepreneur’s organizations, representatives of clusters, representatives of subregional/ local administration, representatives of business support institutions
- A working discussion on the approach to defining smart specialization of the region in relation to:
  - significant regional economic diversification and lack of clear economic specialization
  - focusing the scientific and research potential in almost all the fields of science
  - the dominant position of the City of Warsaw and the metropolitan area in terms of innovation
3. General consultation meetings – results

- List of key economic sectors (industries and services) and technologies
- Formulation of the preliminary assumptions concerning the definition of smart specialization of the region:
  - Resignation from specifying the specialization for subregions in favor of specializations covering the entire region,
  - Lack of concentration on one industry (branch) and searching for synergy effects in the cooperation of industries,
  - Focus on the relations and use of various technologies within the industries,
  - The basis for smart specialization are not only the most innovative sectors located in the metropolitan area, but also traditional sectors of high economic importance (although not innovative at the moment)

List of key economic sectors (industries and services) and technologies

<table>
<thead>
<tr>
<th>Industries</th>
<th>Services</th>
<th>Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-food</td>
<td>B2B, incl. financial services</td>
<td>biotechnology</td>
</tr>
<tr>
<td>Chemical</td>
<td></td>
<td>ICT</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td>nanotechnology</td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td>electronics</td>
</tr>
<tr>
<td>IT</td>
<td>R&amp;D</td>
<td>photonics</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Open consultation meetings (5) with key sector representatives

- Open, public announcement, individual invitations for universities, scientific institutions, representatives of clusters, business environment institutions and entrepreneurs selected on the basis of qualitative analysis and entities active in cooperation
- Verification of formulated conclusions and the approach to the definition of smart specialisation
- Collecting information for SWOT analysis
- Identification of links between key industries, services and technologies – the basis for smart specialisation areas (cross-sectoral)
- Proposals for smart specialisation areas

5. Open workshops in subregions (10)

- Open, public announcement, individual invitations for universities, scientific institutions, representatives of clusters, business environment institutions and entrepreneurs selected on the basis of qualitative analysis and entities active in cooperation
- Subregional dimension
- Draft version of SWOT analysis
- Identification of links between key industries, services and technologies – the basis for smart specialisation areas – workshops, in-depth discussion
- Draft definition for smart specialisation areas
6. One-to-one consultation meetings

- Cooperation with an expert from World Bank
- Meetings with thematic experts
- In-depth consultation on specific issues
- Interviews with key organizations
- Meetings with key/high level persons from industries
- Work on the detailed description of smart specialisation areas

KHARKIV, 4-5.09.2018

7. Internet survey

- The verification of conclusions based on diagnosis and assumptions for the definition of smart specialization
- Additional identification of links between key industrial sectors, service processes and technologies (potential development niches)
- Widening participation, ensuring transparency
- Additional information to the conclusions formulated during working meetings.

KHARKIV, 4-5.09.2018
8. Workshops

- Participants: key stakeholders: entrepreneurs, organizations of entrepreneurs, representatives of clusters, business support institutions, scientific institutions
- Presentation of the description and work on proposed areas of smart specialization
- Discussion on potential development niches
- Completing the list of connections/links for particular areas of smart specialization
- The final version of the SWOT RIS analysis (later additionally evaluated by external expert)

8. Workshops – results

- High quality of life
- Safe food
- Areas of smart specialisation of Mazovia
- Modern/professional business services
- Smart/intelligent management systems
8. Workshops – results

The definition of the Smart Specialisation area:

➢ Description

**Intelligent management systems:** Infrastructure solutions and processes characterized by a high degree of adaptability, leading to increased automation and enable effective monitoring of the processes related to economic activity. **Safe food:** Projects that improve accessibility and enable the development of high-quality food products, consistent with the idea of sustainable development, safe to the end user and the environment throughout the production and distribution.

➢ Examples of links

**Intelligent management systems:** systems for traffic management and control, infrastructure, automation of measurement systems. **Safe food:** production process monitoring systems, supply cycle management, equipment for testing food quality, crop protection measures.

➢ Potential of the region, challenges and the aim for particular smart specialisation area

---

9. Meetings in Regional Centres of ESF on the subject of Smart Specialisation (6)

➢ Participants: key stakeholders - entrepreneurs, organizations of entrepreneurs, representatives of clusters, business support institutions, scientific institutions

➢ Subregional dimension

➢ Verification of the smart specialisation areas: definition, description, link between sector and technology according to subregional characteristics

➢ Public, open consultation – transparency
10. Meetings concerning social innovation in Regional Centres of ESF (6)

- Participants: NGO, social organizations
- Subregional dimension
- Relations and links between smart specialisation areas and social innovation
- Incorporation of social innovations into smart specialisation areas

KHARKIV, 4-5.09.2018

11. Open consultation meeting with clusters’ members and coordinators, followed by one-to-one meetings

- Cluster policy as a part of RIS3
- Cluster initiatives as a „tool” for the development of the smart specialisation areas
- The need of strengthening a cooperation between cluster initiatives due to cross-sectoral, interdisciplinary smart specialisation areas

KHARKIV, 4-5.09.2018
12. Public consultation of the document and analysis of incoming proposals and opinions

- Required by law
- Widening participation
- Ensuring transparency
- Final verification

13. Decision on 4 areas of regional smart specialisation

- The RIS3 formally adopted by The Regional Council (Sejmik Województwa)
- Formal basis for establishing Working Groups for continuous EDP
14. Working Groups for smart specialisation defining **priority research agendas** for smart specialisation areas

- Direct involvement of entrepreneurs and scientific institutions, with dominant role of entrepreneurs
- Open nature of the groups
- The combination of remote work with the traditional formula of group meetings, frequency of meetings according to needs (even every week at the final stage of defining priority research agendas)
- Documents and ideas created in a bottom-up way
- Collective mode of operation
- A decision-making role, public administration representatives as moderators
- Consultation on the construction of the instruments of support in ROP – ERDF TO 1 and TO 3 (criteria, call for proposals)

### Designing S3

- Studies, analysis – selection of respondents according to parameters
- Consultations – representatives of the sub-regions
- **Workshops**

### Implementing S3

- Working groups/ task teams for smart specialisation **workshops**
- Expertise of the results of the working groups / teams (innovation and product potential)

**Smart specialisation – an annex to the RIS for Mazovia**

**Priority research agenda for smart specialisation areas**
Thank you!

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KHARKIV, 4.09.2018
The European Commission’s science and knowledge service
Joint Research Centre

Stakeholder identification for priority domains

Dr Monika Matusiak

Stakeholder groups – quadruple helix

Business
manufacturing and services, primary sectors, financial sector, creative industries, social sector, large firms, SMEs, young entrepreneurs, students with business ideas, cluster and business organisations, etc.

Research
public and private research bodies, universities, science and technology parks, NCPs, Technology transfer offices, Horizon2020 committee members, regional R&I roadmaps etc.

NGOs and citizens’ initiatives related to societal challenges for which innovative solutions would be helpful, consumers associations, Talents! etc.

Civil society / Users

Different departments, if relevant at different government levels, agencies e.g. for regional development, business advice, public procurement offices, incubators, etc.

Entrepreneurial in composition and spirit: (risk-taking, broader view beyond boundaries ...)
Whom to invite for different stages of EDP?

Qualitative interviews
- Experts in specific priority domains
- Key companies
- Most innovative companies
- Researchers from the field

Consultation of the mapping exercise
- Relevant public government, agencies and other public institutions representatives working on economic development, internationalisation, innovation, research, clusters etc.
- Business representatives: clusters, associations, chambers of commerce, key employers, most innovative companies etc.
- Academics: representatives of key universities and research centres
- Civil society representatives: NGOs, educational institutions etc.
- Experts on research and innovation, economic development, industrial policy, internationalisation etc.

EDP working groups
- Key stakeholders identified in the qualitative part relevant for specific priority domains:
  - Companies representing the most important value chains in the priority domain
  - Researchers cooperating with business or conducting research that answers business needs
  - Innovators in the field, patent holders, beneficiaries of innovative projects etc.
  - Specific government departments or public institutions close to the priority domain

Methods of identification - examples
- Network analysis
- Recommendations from clusters and business associations
- Lists of beneficiaries, rankings etc.
- Snowball
Example of evidence-based stakeholder identification

• http://sirislab.com/lab/ris3/moldova/#/

<table>
<thead>
<tr>
<th>System as a whole</th>
<th>Chemical industries, materials and nanotechnology</th>
</tr>
</thead>
<tbody>
<tr>
<td>3925</td>
<td>EUR 113 023 040</td>
</tr>
</tbody>
</table>

Thank you

Monika.MATUSIAK@ec.europa.eu
Stakeholder identification for priority domains

EXAMPLE FROM POLAND – MAZOVIA REGION

Types of organization

- Companies
- Scientific institutions
- Public institutions/ administration
- Intermediaries
- Business/ Innovation support institutions
- Financial institutions
- Civil society organisations
Types of organization – part 1

- **Companies:**
  - small, medium sized, large companies
  - national companies, branches of global corporations
  - production, service, trading
  - headquarters or production sites
  - start-ups, spin-offs

- **Scientific institutions**
  - universities, universities of technology (education, fundamental research, applied science – multidisciplinary)
  - research centres (applied science)
  - scientific institutions (mostly fundamental research)

Types of organization – part 2

- **Intermediaries**
  - chambers of commerce
  - industry associations
  - clusters initiatives
  - employers organizations

- **Public institutions/ administration**
  - local authorities
  - national, local level of public administration
  - development/ innovation agencies
  - labour offices
  - technical schools
Types of organization – part 3

- Financial institutions
  - banks, loan funds
  - seed/venture capital funds
  - Business Angels

- Business/Innovation support institutions
  - technology, industrial parks
  - innovation centres
  - technology transfer centres
  - business incubators, accelerators
  - private foundations, associations

Types of organization – part 4

- Civil society organisations
  - associations
  - foundations

where aim is to solve problems or meet social/environmental/civilization challenges or to manifest interests and will of citizens
The case of Mazovia region

Companies – 699 000 (2012)
Scientific/ R&D institutions – 552 [incl. private R&D] (2011)
Business/ Innovation support institutions – 92 (2012)
Public institutions/ administration – (since 2018) 2 NUTS2, 9 NUTS 3
Cluster initiatives – 45 (2013)

Sources and criteria of identification of stakeholders

- Companies cooperating with R&D institutions, innovative companies:
  - qualitative studies on R&D cooperation, analysis of innovative sectors
  - bibliometric analysis (joint scientific publications)
  - information from TTC
  - participants of acceleration programs (spin-offs, start-ups, mentors, investors)
- Companies with the status of the R&D institutions or having own R&D centres/ units
  (analysis, public registers)
- Companies important for local economy (direct interview with local chambers of commerce, labour offices)
- Cluster members (public information – desk research)
- Beneficiaries of public programs/ funds for innovation – regional, national, european
  (public databases)
### Sources and criteria of identification of stakeholders

- Companies located in technology industrial park (analysis, studies, public information – desk research)
- Laureates of innovation rankings (public information – desk research)
- Large companies with production sites in the region (public information – desk research, analysis, studies)
- SME’s active in the local public sphere (e.g., association of the family companies, with the authority on local level)
- Interviews with other companies: their competitors, suppliers, business partners
- Key companies from the value chains (analysis, studies, mapping)

---

### Sources and criteria of identification of stakeholders

- Business/ innovation support institutions – selection based on the activity, implemented projects etc. (analysis)
- Scientific institutions – based on their achievements (e.g., patents, spin-off, cooperation with industry – analysis)
- Clusters – all invited
- Financial institution – Seed Funds, VC funds, regional loan fund (external reports)
- Chambers of commerce, industry associations – all relevant to the sector/ smart specialisation area
- Civil society organisations: thematically related, active on local/subregional level, umbrella organisations (desk research)
Stakeholders involvement

- Different levels of commitment related to the form of interaction – working groups, workshops, consultation meetings, internet survey, public consultation
- Transparency of the process
- Equal position of partners
- Documentation of the process

---

Key players

*identification = invitation ≠ participation*

Solutions?
- invitation from high level authorities
- visit to the company – individual meetings, at least at the beginning
- recommendation of the chambers of commerce, employers organization
- educational role – individual explanation of the purpose, possible advantages
- indirect involvement through participation in research

In the case of lack of real commitment and the sense of responsibility of the stakeholders
the EDP is not productive...
Thank you!

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EDP working groups  organization and procedures

Gabriela Macoveiu

Why is EDP procedure necessary?
How do we organize EDP workshops?
How we can harvest the outcomes of EDP?
A mechanism for prioritization of investments, based on inclusive evidence-based process, driven by stakeholders’ engagement and attention to market dynamics.

A tool to inform government’s investment policy, allowing them to better know the territory and empower local actors in reaching strategic objectives of the region.

A mechanism to underpin ex-ante public funds deployment and to stimulate combination of public and private funding sources.

Organization of the EDP

Prepare the EDP
- Develop work methodologies (EDP/PDL, RIS3 partnership consortia, consultation platform)
- Plan the meetings
- Ensure resources

Organize EDP and harvest the outputs
- Ensure Q4 (relevant) participation
- Ensure good facilitators
- Provide arguments on benefits of the S3 for each stakeholder

Publicize EDP outputs
- Prepare EDP report
- Publicize report and take feedback to improve
- Promote added value of stakeholder commitment

Use EDP outputs for S3
- Definition/revision of S3
- Programming/project portfolio
- Governance
- Monitoring
Relationships between EDP main actors - roles

Q4 stakeholders
- Share knowledge
- Participate proactive in the transformation process
- Recognize champions
- Propose initiatives
- Assume responsibilities
- Sustain partnerships
- Mobilize resources

RIS3 Coordinator
- Play the facilitator role
- Develop communication platforms
- Set up the governance and monitoring system
- Identify and attract financing resources

EDP workshops’ organization

Agreed methodology
Opening session, introduction of the work plan 09:30 – 10:00
Plenary session I – Setting the scene 10:00-11:00
  Coffee break 11:00-11:30
Participatory exercise 1 – 11:30-13:00
  Lunch break 13:00-14:00
Participatory exercise 2 – 14:00-16:30
  Coffee break 16:30-17:00
Plenary session II – Report of the outcomes 17:00 – 17:30
EDP workshop – setting the scene
ex Biotech North-East Romania

4 working groups  ➔  4 areas to explore  ➔  4 moderators

<table>
<thead>
<tr>
<th>EDP ITC</th>
<th>Working group 1</th>
<th>Working group 2</th>
<th>Working group 3</th>
<th>Working group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area to explore</td>
<td>Agrofood biotechnologies</td>
<td>Industrial biotechnologies</td>
<td>Environment-oriented biotechnologies</td>
<td>Pollution-removal and waste recovery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pollution-removal and waste recovery</td>
<td>Bio nano-technologies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medical and pharmaceutical biotechnology</td>
<td></td>
</tr>
<tr>
<td>Moderator/Secretary</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td></td>
</tr>
</tbody>
</table>

Setting the scene

- Present arguments in the favor of the smart specialization sector and the niches proposed for discussion (selected from)
  - Socio-Economic Analysis / Mapping Report
  - Multi criteria analysis
- Present existing trends and best practices (brief examples)
  - Value chain interviews / Dedicated surveys
  - Benchmarking reports
  - Examples of best practices
- Indicate potential leaders in the S2 area
Participatory exercises methodology

Participatory exercise 1

1. Split participants in thematic subgroups
2. Identification of individual challenges
3. Argumentation of the challenges
4. Grouping and prioritization of the challenges

Participatory exercise 2

1. Form working sub-groups
2. Fill in the "Regional smart specialization idea"
3. Internal reporting the thematic working group

Objective of the session:
Participants formulate challenges for their organisation, which could be met with an innovation or a technological solution.
Participants become familiar with other stakeholders’ challenges, achieve consensus in grouping and prioritizing them.
Participatory exercise 1

Split participants in thematic subgroups
Identification of individual challenges
Presentation of the challenges
Prioritization of challenges

Preferable ask for this action at the registration (on-line or front office desk)
Define a way to easily recognize participants according to Q4 elements

What do you consider is the most significant challenge for your organization which could be met with an innovation or a technological solution?
Participatory exercise 1

Split participants in thematic subgroups
Identification of individual challenges
Presentation of the challenges
Prioritization of challenges

✓ Fill-in the challenge post-it and share it on the flip-chart - in the corresponding category of Q4
✓ Open discussion with table participants to argument identified challenge

Participatory exercise 1

Split participants in thematic subgroups
Identification of individual challenges
Presentation of the challenges
Prioritization of challenges

✓ Group the challenges identified according to their similitudes – CLUSTERISATION
✓ Vote the proposed clusters according to regional preferences – PRIORITIZATION

Q4 participants sub-group to address one of the cluster of challenges (I)
**Participatory exercise 2**

**Scope of the session:**
Research and business representatives introduce the opportunities, from their perspective, highlighting local capabilities and making links to the challenges identified during the morning.

Participants jointly develop “*Regional development potential*” fiches that identify and reflect on ways to address the prioritised challenges identified in exercise 1.

Define the potential of the region based on the perception of stakeholders.
Title – what goal we want to achieve?
SWOT Analysis
The implementation road map – how we shall achieve this goal?
Identification of the role of each element of Q4 in the implementation

Participatory exercise 2

Form working sub-groups
Fill-in „Regional development potential“ fiche
Internal reporting the thematic working group

Facilitated discussion with the moderator and participants for finalization of the „Regional development potential“ fiche
The secretary collects all Fiches and brief the outcomes in the plenary session.
Ex. Biotechnologies EDP outputs

Challenges

- Agrofood sector with low added value final products
- Too much imported and modified food (not healthy)
- High potential for bio components from agriculture not valorized
- Lack of a regional management system for HL and HA
- Poor clean drinking water and waste water collection systems in rural area
-Disconnected value chains (food, textile, furniture)

S3 solutions

- Biotech in agriculture
  - Wool valorization in construction
  - IT solutions for traceability and certification of ecological products
- Biotech in health
  - Production of new probiotics and antibiotics
  - Development of new medical sensors
- Biotech in industry
  - Promote development based on integrated value chains (ex hemp)
  - Production of bioenergy
- Biotech and environment
  - Exploitation of solid waste from waste water treatment plants
  - New devices to reduce water consumption in agriculture and farming

Exercise (1h)

- Participants work in national teams
- Assume the role of a stakeholder and fill-in a challenge fiche (4 participants=4 challenges)
- Present the challenge in the group, give arguments and post it on the flipchart
- Discuss with the participants similarities and perspective for reducing the challenges number. Vote most significant challenge.
- Fill-in the Regional potential Fiche according to selected challenge.
Harvesting EDP – implementing RIS3 ex North-East

**Identification of S3 solutions**
- 9 EDPs (2016-2017)
  - Agrofood-2, Textile-2, ITC -2, Biotechnologies-2, Environment-1

**Regional calls for RIS3 project proposals**
- 36 letters of intent
- 93 project fiches -2017
- 39 project fiches -2018

**Assessment of financing sources for RIS3 projects**
- 36 - EITTs, PA 1.1 ROP
- 110 – simple projects, other OPs
- 22 – integrated projects, PA1.2 ROP

**Total project proposals = 168; Estimated Budget = 322.24 mil Euro**

**ROP allocates 50 mil Euro (FEDR+NB) for RIS3 North-East implementation**

**Roles in harvesting EDP**

**Sectorial coordinators/EDP facilitators**
- Prepare and organize EDP workshops
- Collect S3 Fiches and prepare EDP reports
- Continuous identification of stakeholders with entrepreneurial capacity
- Participate in project ideas’ evaluation

**RIS3 Management team**
- Prepare and organize regional calls and PDL workshops
- Develop/Revise RIS3 content
- Develop and chair RIS3 governance structures
- Develop with MA financing conditions for dedicated RIS3 calls
- Develop and run monitoring activities

**RIS3 Decisional bodies**
- Approve RIS3 content, RIS3 implementation reports and project portfolio

**S3 Project promoters**
- Refine and develop project concepts
- Prepare and submit application forms
- Report status of implementation
- Participate in new EDP/PDL
EDP lessons learned

- EDP is the core of the RIS3 process
- It is a cyclic, iterative, transparent and democratic process
- It is a tool for building entrepreneurial capacity
- Brings together “unusual suspects”
- Offers the chance to identify local champions and build trust and collective leadership
- A process that depends on dedicated management resources
Thank you for the attention!

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Main steps during the EDP process
(for each priority domain)

• Presentation of the results of mapping exercise and debate
• SWOT analysis
• Common vision for the future and final priority domains
• Main objectives and instruments
• Policy mix
• Basic indicators
**SWOT analysis**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>- What are our main advantages? (inside the territory)</td>
<td>- What are our main weak points? (inside the territory)</td>
</tr>
<tr>
<td>- How can we benefit from them?</td>
<td>- How can we neutralise them or turn into a strength?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>- What trends/phenomena occurring in the country and internationally are beneficial to us?</td>
<td>- What trends/phenomena occurring in the country and internationally are influencing us negatively?</td>
</tr>
<tr>
<td>- How can we benefit from them?</td>
<td>- How can we avoid them?</td>
</tr>
</tbody>
</table>

**SWOT analysis**

**Strengths and weaknesses:**
- internal
- present
- dependent on us

**Opportunities and threats:**
- external
- in the near future
- independent of us
Main steps of SWOT analysis

• Identification of internal and external factors influencing the priority domain
• Assessment of the strength and importance of these factors
• Identification of strategic potential

SWOT assessment

• Strength of present impact (-5 – 5 / no zero)
  -5 – strongly negative influence
  +5 – strongly positive influence
• Importance for the future development/weighing (0,01 – 1,0)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Present impact (-5 - +5)</th>
<th>Importance for the future (0,01-1,0)</th>
<th>Strategic potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(multiply)</td>
</tr>
</tbody>
</table>
Vision for the future: now

- Traceability
- E-commerce
- Production management
- E-certification
- Data processing
- ICT for SMEs

IT

Transport and logistics

Food production

Furniture, wood and paper

Machinery

- Transport conditions: temperature, humidity
- Specialized logistics services
- Timing of deliveries
- Shared logistics centres for SMEs
- Transport outsourcing

- Specialized agricultural machinery
- Specialized food processing machinery
- Automation of production
- Internal transport
- Machinesaving nutritional values in production processes

- Wooden and cardboard packaging
- Design
- Food design

Vision for the future: what we want to achieve

- Interiors of the future
- Future manufacturing

- Biomaterials and food for sophisticated consumers

- Specialized logistics processes

- Medical technologies

ICT-based development

- 3D printing in wood
- Virtual reality tool for interior design
Main objectives and instruments

Role of stakeholders – Trust and participation
- Commit to the strategic objectives identified in S3 strategies
- Engage in the different stages of the policy-making process

Role of government – Inclusive governance
- Enable platforms for targeted stakeholders’ interaction and policy coordination
- Build flexible structures and incentives to allow policies to evolve and adapt to a changing reality

Sustaining an inclusive and continuous EDP
EDP in the strategy document

• Description of the process
• Description of stakeholder participation
• All deliverables

Contents of S3 strategy

• Description of strategic mandates and relation to other strategies
• Description of the S3 process
• Diagnosis (main results of the mapping exercise – full reports in the Annex)
• Description of priority domains
• SWOT for each priority domain
• Vision for the future
• Strategic and operational objectives and actions
• Monitoring system
• Implementation system
• Financing system
• How it will updated and how will EDP be continued
Thank you
Monika.MATUSIAK@ec.europa.eu
Entrepreneurial Discovery Focus Group
Methodological Guidelines

Introduction

This document sets out the methodology for the EDP focus group.

The workshop will be organized with opening and closing plenary sessions and two parallel sessions with a number of participatory working groups in between.

The working groups and the plenaries will examine segments of the S2 proposed sector (ex. Biotechnologies) in relation with societal challenges as identified by RIS3 coordinator. The RIS3 coordinator will send invitations for participation and identifies most appropriate speakers relevant to the topic.

Ex of RIS3 North-East – Biotechnologies EDP workshop, Iasi 06.06.2016.

<table>
<thead>
<tr>
<th>Societal challenge</th>
<th>Healthy ageing, demography and welfare</th>
<th>Food security, sustainable agriculture and bio-economy</th>
<th>Reliable, clean and efficient energy</th>
<th>Clean, safe water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field</td>
<td>Bio nano-technologies</td>
<td>Agrofood biotechnologies</td>
<td>Industrial biotechnologies</td>
<td>Environment-oriented biotechnologies</td>
</tr>
<tr>
<td></td>
<td>Medical and pharmaceutical biotechnology</td>
<td></td>
<td></td>
<td>Pollution-removal and waste recovery</td>
</tr>
</tbody>
</table>

Overview of the day

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30 – 10:00</td>
<td>Opening remarks and outline of the day</td>
</tr>
<tr>
<td><strong>Plenary Session 1</strong> – Sharing national and international experiences 10:00-11:00</td>
<td></td>
</tr>
<tr>
<td>Coffee break</td>
<td>11:00-11:30</td>
</tr>
<tr>
<td><strong>Participatory Exercise 1</strong> – 11:30 to 13:00</td>
<td></td>
</tr>
<tr>
<td>Lunch break</td>
<td>13:00-14:00</td>
</tr>
<tr>
<td><strong>Participatory Exercise 2</strong> – 14:00 to 16:30</td>
<td></td>
</tr>
<tr>
<td>Coffee break</td>
<td>16:30-17:00</td>
</tr>
<tr>
<td><strong>Plenary session 2</strong>- Report back and round table 17:00 – 17:30</td>
<td></td>
</tr>
</tbody>
</table>
Descriptions of the participatory exercises

Participatory Exercise 1 – 11:30 to 13:00

**Aim of the session:** Identification of challenges to be addressed in Exercise 2 and their related working sub-group.

**Dynamics:** The session will include individual thinking time, individual presentations as well as a process of consensus building. It is comprised of the following steps which are described in more detail below:

- Split into thematic working groups
- Individual identification of the challenges
- Presentation and argumentation of the challenges
- Formation of sub-groups

**Support:** each thematic working group will be supported by a moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

**IT and Stationary Equipment:** Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

1) **Split into 4 thematic working groups**

Attendees will split in four working groups addressing the related industrial segments. Each thematic working group should have participants from the whole quadruple helix (Q4 - enterprises, academia and research, civil society and local public administration). It might also be interesting to have graduates and post-graduates students from different disciplines taking part. Each working group will start with a tour de table.

**Role of the moderator:** facilitate participants splitting in the working group and start the tour de table.

**Role of the secretary:** facilitate participants splitting in the working group.

**Role of the participant:** locate the working table of interest.

2) **Individual reflection and identification of challenges (10 minutes – 11:30-11:40)**

Each individual participant will be given some minutes to think about a challenge faced by their organisation which could be met with an innovative or technological solution. The focus should be on the challenge, not on the technological solution.

Each participant will have a color-coded “Challenge fiche” (see below) and a post-it to write the challenge down. The colour reflects the element of the quadruple helix to which the participant belongs. ex: Public sector Private sector NGOs Universities

Preliminary Example of “Challenge fiche”

| Challenge Title: | Pollution of a given local natural area |
Challenge description and impacts
The river xxx is polluted due to the problems with given industrial discharges and this is impacting the community in the following ways:

- Agricultural...
- Economics...
- Social...

Role of the moderator: Explain the task, keep the time and ensure each participant understands the process.
Role of the secretary: Ensure that each participant has a fiche and a post-it and collect the fiches at the end of the task.
Role of the participant: Fill-in the “Challenge fiche”.

3) Presentation of the challenges – (25 minutes – 11:40-12:05)
Each participant will present their challenge to the rest of the working table, using between 1 and 2 minutes. Each speaker will also stick one post-it on the flipchart.

Role of the moderator: explain the task, ensure time keeping and ensure that speakers do not deviate from their task.
Role of the secretary: write the challenge-title in the excel file (visible through the beamer), following the same colour code.
Role of the participant: explain the challenge, keeping the time, post the post-it to the flipchart.

4) Formation of subgroups to address the challenge in the plenary exercise 2 – (55 minutes – 12:05-13:00)
The role of the moderator is critical in this step, as she/he will need to manage the discussion, reducing the number of challenges from step 3 by “collapsing” similar/complementary ones, identify common interests from participants and building consensus on the grouping process – to max 4. The secretary will record this step in the so called “Preference Table” and the “Final challenges and subgroups” table, drafted below.

<table>
<thead>
<tr>
<th>Preference table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Challenge title</strong></td>
</tr>
<tr>
<td>Challenge 1</td>
</tr>
<tr>
<td>Challenge 2</td>
</tr>
<tr>
<td>Challenge 3</td>
</tr>
<tr>
<td>Challenge 4</td>
</tr>
<tr>
<td>Challenge 5</td>
</tr>
</tbody>
</table>
| etc | }
### Final challenges and subgroups

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Composition of the subgroup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge 1</td>
<td>3 research, 2 business, 1 NGO, 1 Public</td>
</tr>
<tr>
<td>Challenge 2</td>
<td>1 research, 2 business, 1 NGO, 1 Public</td>
</tr>
<tr>
<td>Challenge 3</td>
<td>2 research, 1 business, 1 Public</td>
</tr>
<tr>
<td>Challenge 4</td>
<td>1 research, 1 business</td>
</tr>
</tbody>
</table>

The participants adhere with the support of the moderator to one priority challenge, forming a subgroup for work during exercise 2.

#### Role of the moderator:
The moderator is critical in this step. She/he should:
1. Explain the task and ensure all participants are clear about it.
2. Lead a discussion on whether there are challenges which are similar or complementary and cluster them into one, using the flipchart.
3. Invite participants to express up to 3 preferences (depending on the number of participants in the working table). This can be done with the help of the secretary using the “Preference table”. If the group is small, this process can also be managed orally.
4. Lead a consensus-building interaction in forming “sub-groups” which comprise at least 1 member of business and 1 of research. During this process the titles and definition of the challenges can be further modified and adapted to the evolution of the conversation.

#### Role of the secretary:
The secretary should record the process by:
1. Filling the “Preference table” in an excel file visible through the beamer to facilitate the moderators task.
2. Filling the “Final challenges and subgroups” template, which describe the sub-group composition in terms of triple helix for each prioritized challenge.

#### Role of the participant:
1. Be active in the discussion and facilitate the creation of groups.

### Participatory Exercise 2 – 14:00 to 16:00

#### Aim of the session:
The sub-groups defined in exercise 1 will develop “Regional development potential” fiches. Through these, they will identify and reflect on ways to address the challenges formerly identified, in such a way that is aligned with RIS3 (through such fiches we can then review the potential of the region, based on the perception of stakeholders).

#### Dynamics:
Following two brief presentations by business-intermediaries and research-representatives, the sub-groups will discuss and fill in the “Regional development potential” fiche. The following steps are included:
- Split into thematic working groups (the same as in the morning)
- Brief presentation by local universities and business intermediaries
- Split into subgroups for the completion of the “regional-development potential” fiche
- Internal reporting to the thematic working group
Support: each thematic working group will be supported by the same moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

**IT and Stationary Equipment:** Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants. **Each sub-group** will also have a computer, eventually connected to the internet, which they should use to fill the “Regional development potential” fiche.

1) **Split into thematic working groups**
P
Participants will split into the same thematic working groups as in the morning.

<table>
<thead>
<tr>
<th>Role of the moderator</th>
<th>Ensure that the working group resumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of the secretary</td>
<td>Ensure that the working group resumes</td>
</tr>
<tr>
<td>Role of participants</td>
<td>Re-join the working table</td>
</tr>
</tbody>
</table>

2) **Brief presentation by local universities and business intermediaries** – (20 minutes – 14:00-14:20).

Universities and business intermediaries will give a short presentation (5-8 minutes each) on the future opportunities, from their perspective, offered by the research/business sector, highlighting the local capabilities and making links to the challenges mentioned during the morning.

This short discussion will serve to further set the scene for the subsequent steps.

<table>
<thead>
<tr>
<th>Role of the moderator</th>
<th>to introduce the session and ensure time-keeping from the presenters.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of the secretary</td>
<td>support speakers if they need IT help.</td>
</tr>
<tr>
<td>Role of participant</td>
<td>attend the session</td>
</tr>
</tbody>
</table>

3) **Split into subgroups for the completion of the “regional-development potential” fiche** – (1h 30 minutes – 14:20-15:50)

The subgroups will discuss on how to address each challenge and will fill-in a “Regional development potential fiche” summarising the discussion. At the end of the session, each subgroup will present to the working table. Each sub-group will need to identify a “writer” and a “rapporteur”.

**Preliminary example of “regional development potential” fiche**

1. Title of the proposal – what goal we want to achieve?
2. Brief description of the challenge (potentially illustrated through an image).
3. Description of the regional opportunity offered by the challenge (potentially illustrated through an image).
4. Description of regional strengths upon which the idea is built (identify clearly the research and innovation component).

5. Regional weaknesses that need to be addressed (related to capacities, human resources, research and business infrastructure or other).

6. Implementation arrangements (how we want to achieve the goal? – ex. creation of specific businesses, participation to given international value chains, development of a new industrial etc.).

7. Role of each element of the 4-ple helix in pursuing this opportunity (specific and related to 6).

**Role of the moderator:**
- to explain the task to the subgroups
- to move within subgroups and facilitate their discussion, ensuring they don’t get “stuck”
- to ensure that each subgroups nominates a “writer” to fill-in the fiche in the computer and a rapporteur for the internal reporting (task 4)

**Role of the secretary:**
- Ensure each subgroup can access the computer with the “Regional development potential” fiche.

**Role of participants:**
- Join one sub-group
- Identify a rapporteur and writer within the sub-group
- Participate actively to the discussion

4) Internal reporting to the thematic working group – (10 minutes – 15:50-16:00)

Each sub group will summarise to the working group the discussion by appointing a speaker.

**Role of the moderator:**
- to facilitate the process and ensure time-keeping

**Role of the secretary:**
- to collect the fiches from the computers and email them to RIS3 coordinating team.

**Role of participants (rapporteur or writer):**
- to provide the information required by the task and keep the timing
Hand-out for the moderator

Participatory Exercise 1 – 11:30 to 13:00

Aim of the session: Identification of challenges to be addressed in Exercise 2 and their related working sub-groups.

Dynamics: The session will include individual thinking time, individual presentations as well as a process of consensus building. It is comprised of the following steps which are described in more detail below:

- Split into thematic working groups
- Individual identification of challenges
- Presentation of challenges
- Formation of sub-groups

Support: each thematic working group will be supported by a moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

IT and Stationary Equipment: Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

Summary of tasks for the moderator

<table>
<thead>
<tr>
<th>Exercise steps</th>
<th>Moderators’ role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split into thematic working groups</td>
<td>• Facilitate participants splitting in the working group and start the tour de table.</td>
</tr>
<tr>
<td>2. Participants’ individual identification of challenges</td>
<td>• Explain the task, keep the time and ensure each participant understands the process.</td>
</tr>
<tr>
<td>3. Presentation of challenges identified in step 3</td>
<td>• Explain the task, ensure time keeping, ensure that speakers do not deviate from their task</td>
</tr>
</tbody>
</table>
| 4. Formation of sub-groups                         | • This is the core task of the moderator. She/he should:
  1. Explain the task and ensure all participants are clear about it
  2. Lead a discussion on whether there are challenges which are similar or complementary and hence cluster them into one.
  3. Invite participants to express up to three preferences (depending on the number of participants in the working table). This can be done in an excel sheet, with the help of the secretary. If the group is small, this process can also be managed orally.
  4. Lead a consensus-building interaction forming max 4 “sub-groups” which comprise at least 1 member of business and 1 of research (1 for each prioritized challenge). During this process the titles and definition of the challenges can be further modified and adapted to the evolution of the conversation. |
Participatory Exercise 2 – 14:00 to 16:00

Aim of the session: The sub-groups defined in exercise 1 will develop “Regional development potential” fiches. Through these, they will identify and reflect on ways to address the challenges formerly identified, in such a way that is aligned with RIS3 (through such fiches we can then infer on the potential of the region and the perception of stakeholders).

Dynamics: Following two brief presentations by business-intermediaries and research-representatives, the sub-groups will discuss and fill in the “regional development potential” fiche. The following steps are included:

- Split into thematic working groups
- Brief presentation by local universities and business intermediaries
- Split into subgroups for the completion of the “regional-development potential” fiche
- Internal reporting to the thematic working group

Support: each thematic working group will be supported by the same moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

IT and Stationary Equipment: Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

Each sub-group will also have a computer, connected to the internet, which they should use to fill the “business potential” fiche.

Summary of tasks for the moderator

<table>
<thead>
<tr>
<th>Exercise steps</th>
<th>Moderators’ role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split into thematic working groups</td>
<td>• Ensure that the working group resumes as in the morning session</td>
</tr>
<tr>
<td>2. Brief presentation by local universities and business intermediaries</td>
<td>• Introduce the session and ensure time-keeping from the presenters.</td>
</tr>
<tr>
<td>3. Split into subgroups for the completion of the “regional-development potential” fiche</td>
<td>• Explain the task to the subgroups (i.e. filling in the “regional development potential fiche”) • Move within subgroups and facilitate their discussion, ensuring they don’t get “stuck” • Ensure that each subgroups nominates a “writer” to fill-in the fiche in the computer and a rapporteur for the internal reporting (task 4)</td>
</tr>
<tr>
<td>4. Internal reporting to the thematic working group</td>
<td>• Facilitate the process and ensure time-keeping</td>
</tr>
</tbody>
</table>
Hand-out for the secretary

Participatory Exercise 1 – 11:30 to 13:00

**Aim of the session:** Identification of challenges to be addressed in Exercise 2 and their related working sub-group.

**Dynamics:** The session will include individual thinking time, individual presentations as well as a process of consensus building. It is comprised of the following steps which are described in more detail below:

- Split into thematic working groups
- Individual identification of challenges
- Presentation of challenges
- Formation of sub-groups

**Support:** each thematic working group will be supported by a moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

**IT and Stationary Equipment:** Each thematic working group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

### Summary of tasks for the secretary

<table>
<thead>
<tr>
<th>Exercise steps</th>
<th>Secretary' role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split into thematic working groups</td>
<td>Facilitate participants splitting in the thematic working groups; use colours for badges to easily identify each element of Q4.</td>
</tr>
</tbody>
</table>
| 2. Participants' individual identification of challenges | Ensure that each participant has a “Challenge fiche” and a post-it
Collect the challenge fiches at the end of the task. |
| 3. Presentation of challenges identified in step | Write the challenges-titles in an excel file (visible through the beamer), following the same colour code as for participant badges. |
| 4. Formation of sub-groups | Record the process by:
1. Filling the “Preference table” in an excel file visible through the beamer to facilitate the moderators task
2. Filling in the “Final challenges and composition” template, which describe the sub-group composition in terms of triple helix. |
Participatory Exercise 2 – 14:00 to 16:00

**Aim of the session:** The sub-groups defined in exercise 1 will develop “regional development potential” fiches. Through these, they will identify and reflect on ways to address the challenges formerly identified, in such a way that is aligned with RIS3 (through such fiches we can then infer on the potential of the region and the perception of stakeholders).

**Dynamics:** Following two brief presentations by business-intermediaries and research-representatives, the sub-groups will discuss and fill in the “regional development potential” fiche. The following steps are included:

- Split into thematic working groups
- Brief presentation by local universities and business intermediaries
- Split into subgroups for the completion of the “regional-development potential” fiche
- Internal reporting to the thematic working group

**Support:** each thematic working group will be supported by the same moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

**IT and Stationary Equipment:** Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

Each sub-group will also have a computer, connected to the internet, which they should use to fill the “business potential” fiche.

**Summary of tasks for the secretary**

<table>
<thead>
<tr>
<th>Exercise steps</th>
<th>Secretary’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split into thematic working groups</td>
<td>• Ensure that the working group resumes</td>
</tr>
<tr>
<td>2. Brief presentation by local universities and business intermediaries</td>
<td>• Support speakers if they need IT help.</td>
</tr>
<tr>
<td>3. Split into subgroups for the completion of the “regional-development potential” fiche</td>
<td>• Ensure each subgroup can access the computer with the “Regional development potential” fiche.</td>
</tr>
<tr>
<td>4. Internal reporting to the thematic working group</td>
<td>• Collect the fiches from the computers and email them to RIS3 coordinating team.</td>
</tr>
</tbody>
</table>
**Hand-out for the participant**

**Participatory Exercise 1 – 11:30 to 13:00**

**Aim of the session:** Identification of challenges to be addressed in Exercise 2 and their related working sub-group.

**Dynamics:** The session will include individual thinking time, individual presentations as well as a process of consensus building. It is comprised of the following steps which are described in more detail below:

- Split into thematic working groups
- Individual identification of challenges
- Presentation of challenges
- Formation of sub-groups

**Support:** each thematic working group will be supported by a moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

**IT and Stationary Equipment:** Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

---

**Summary of tasks for the participant**

<table>
<thead>
<tr>
<th>Exercise steps</th>
<th>Participant’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split into thematic working groups</td>
<td>• Locate thematic working table of interest</td>
</tr>
<tr>
<td>2. Participants’ individual identification of challenges</td>
<td>• Fill in the “Challenge fiche”.</td>
</tr>
<tr>
<td>3. Presentation of challenges identified in step</td>
<td>• Explain the challenge, keeping the time, post the post-it to the flipchart.</td>
</tr>
<tr>
<td>4. Formation of sub-groups</td>
<td>• Be active in the discussion and facilitate the creation of groups.</td>
</tr>
</tbody>
</table>
Aim of the session: The sub-groups defined in exercise 1 will develop “regional development potential” fiches. Through these, they will identify and reflect on ways to address the challenges formerly identified, in such a way that is aligned with RIS3 (through such fiches we can then infer on the potential of the region and the perception of stakeholders).

Dynamics: Following two brief presentations by business-intermediaries and research-representatives, the sub-groups will discuss and fill in the “regional development potential” fiche. The following steps are included:
- Split into thematic working groups
- Brief presentation by local universities and business intermediaries
- Split into subgroups for the completion of the “regional-development potential” fiche
- Internal reporting to the thematic working group

Support: each thematic working group will be supported by the same moderator (who will also report back to the final plenary) as well as a secretary who will record and collect the relevant output of the session.

IT and Stationary Equipment: Each thematic working-group will have a beamer connected to a computer for the secretary to conduct its tasks, as well as the usual flipcharts, post-its and writing pads to support the moderator and the participants.

Each sub-group will also have a computer, connected to the internet, which they should use to fill the “business potential” fiche.

Summary of tasks for the 12 participant

<table>
<thead>
<tr>
<th>Exercise steps</th>
<th>Participant’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split into thematic working groups</td>
<td>• Re-join the working table as in the morning.</td>
</tr>
<tr>
<td>2. Brief presentation by local universities and business intermediaries</td>
<td>• Attend the session.</td>
</tr>
<tr>
<td>3. Split into subgroups for the completion of the “regional-development potential” fiche</td>
<td>• Participate actively to the discussion - help the group identify rapporteur/writer.</td>
</tr>
<tr>
<td>4. Internal reporting to the thematic working group</td>
<td>• (if rapporteur/writer) provide the information required by the task and keep the timing.</td>
</tr>
</tbody>
</table>
Auxiliary Material – Exercise 1

“Challenge fiche” (for participants)

Challenge Title:

Challenge description and impacts on the region.
## Preference table

<table>
<thead>
<tr>
<th>Identified challenge (title)</th>
<th>Participant name (initials) preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge 1</td>
<td></td>
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<tr>
<td>Challenge 2</td>
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<td>Challenge 3</td>
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<td>Challenge 3</td>
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</tbody>
</table>

## Final challenges and subgroups

<table>
<thead>
<tr>
<th>Final Challenge Title</th>
<th>Composition of the subgroup</th>
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</tbody>
</table>
Regional development potential fiche – for sub-groups in Exercise 2

1. Title of the proposal – what goal we want to achieve?

2. Brief description of the challenge (potentially illustrated through an image).

3. Description of the regional opportunity offered by the challenge (potentially illustrated through an image).

4. Description of regional strengths upon which the idea is built (identify clearly the research and innovation component).

5. Regional weaknesses that need to be addressed (related to capacities, human resources, research and business infrastructure or other).

6. Implementation arrangements (how we want to achieve the goal? – ex. creation of specific businesses, participation to given international value chains, development of a new industrial etc.).

7. Role of each element of the 4-ple helix in pursuing this opportunity (specific and related to 6).