

Starting Smart Specialisation

Chisinau, 5 April, 2017

Experiences from the EU for innovation and economic transformation

www.jrc.ec.europa.eu



Smart specialisation in the EU enlargement and neighbourhood countries is

- A unique opportunity to kick-off and promote structural change and growth.
- However, if designed and implemented in an imitative way by blind copying of the best practice developed for other contexts it can fail miserably.
- The key is to adapt S3 to the nature of innovation processes in the E&N countries.
- It should address country and region specific obstacles to improve R&I policy.

Report - The role of Smart Specialisation in the EU Enlargement and Neighbourhood Policies

Aims:

- to explore the possibilities how to apply S3 approach in the EU enlargement and neighbourhood countries
- identifying the major gaps and barriers
- provide recommendations for the capacity building actions

Work carried out:

- in the frame of Danube-INCO.NET project
- JRC S3 platform together with external experts
- Final version will be available by the end of April:
www.s3platform.jrc.ec.europa.eu / www.danube-inco.net/

Report – The Role of Smart Specialisation in the EU Enlargement and Neighbourhood Policies

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Report - The Role of Smart Specialisation in the EU Enlargement and Neighbourhood Policies

Topics covered:

- The potential benefits of S3 approach for EU E&N countries
- Assessment of R&I systems in the EU E&N countries and their potential to apply S3 approach: opportunities and barriers
- RIS3 Wheel methodology used to visualise assessments in a comparative way
- Policy implications for the EU Enlargement and Neighbourhood Policies
- Recommendations for EU E&N countries regarding capacity building actions to address R&I challenges
- Includes country case studies

Report - The role of smart specialisation in the EU enlargement and neighbourhood policies

Countries addressed:

➤ ***EU Enlargement***

5 Western Balkan Countries:

Serbia, Montenegro, Macedonia, Albania and Bosnia & Herzegovina

➤ ***EU Neighbourhood***

6 countries in Eastern Europe and South Caucasus – EU Eastern Partnership:

Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine

Comprehensive country case studies: Ukraine & Macedonia



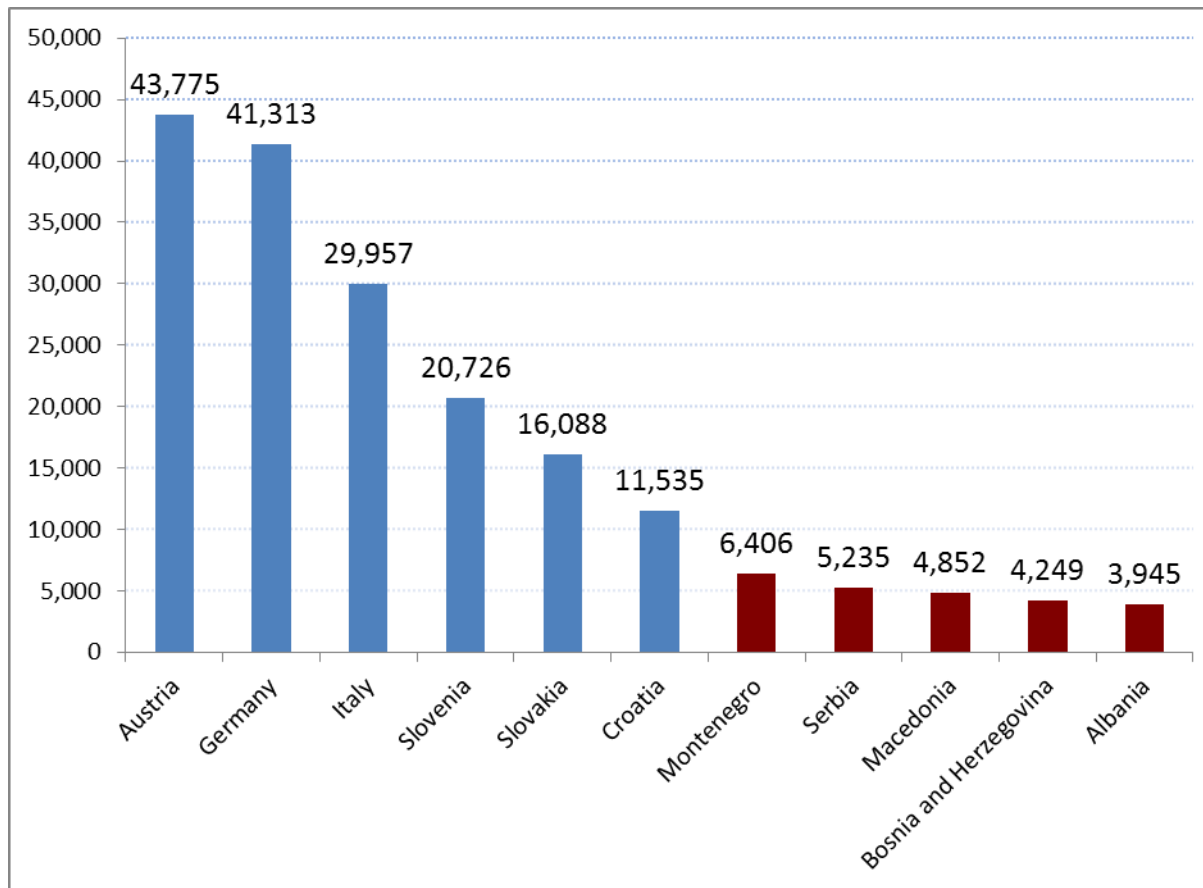
Outline

- Some common features of E&N countries
- Main gaps and obstacles towards S3
- Pre-conditions for launching S3 process
- Conclusions and recommendations

Some common features of E&N countries

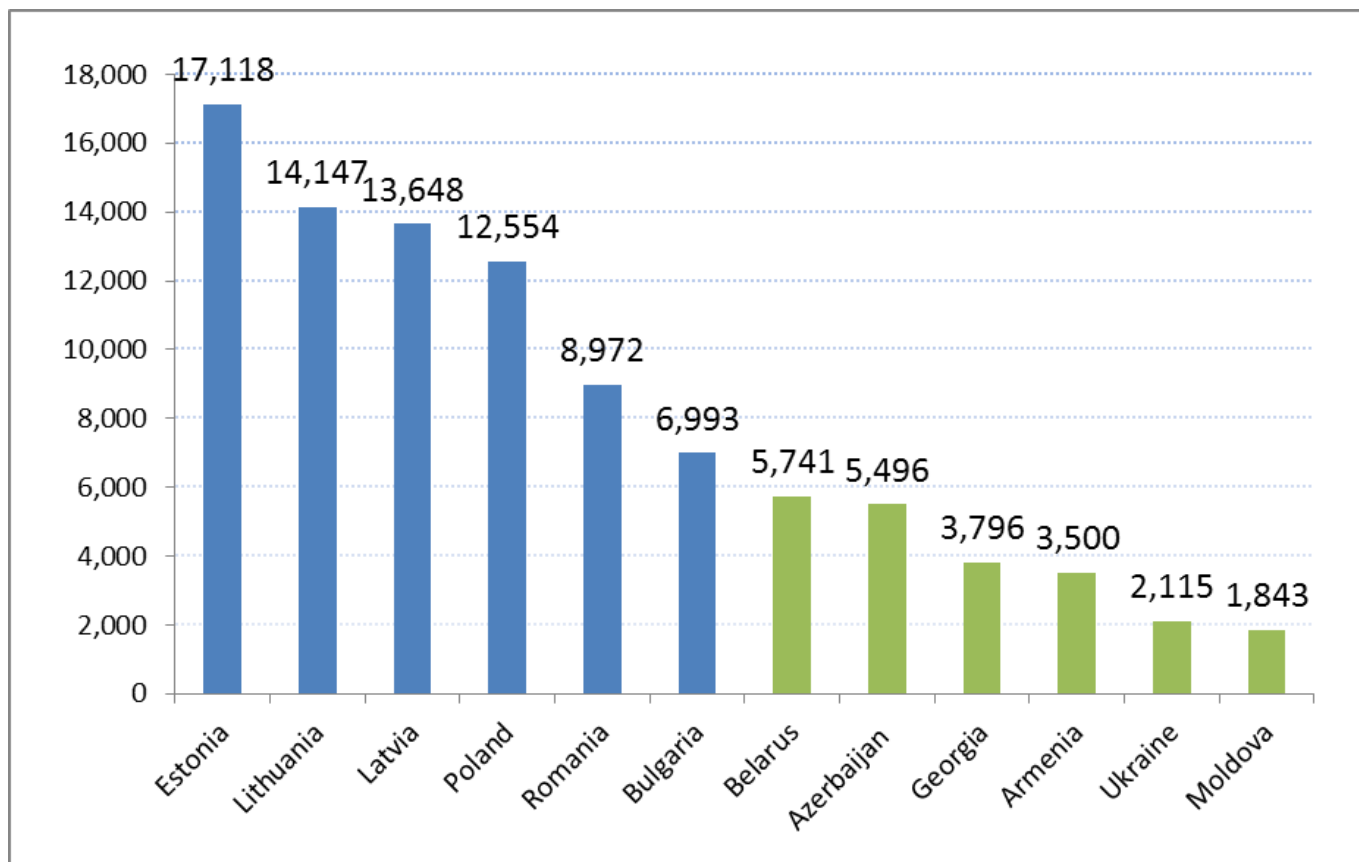
Low income levels

GDP per capita 2015, in WBC-5 versus the EU countries



Low income levels

GDP per capita 2015, (current USD) in the EaP countries versus the EU countries



Limited capabilities to invest in R&D

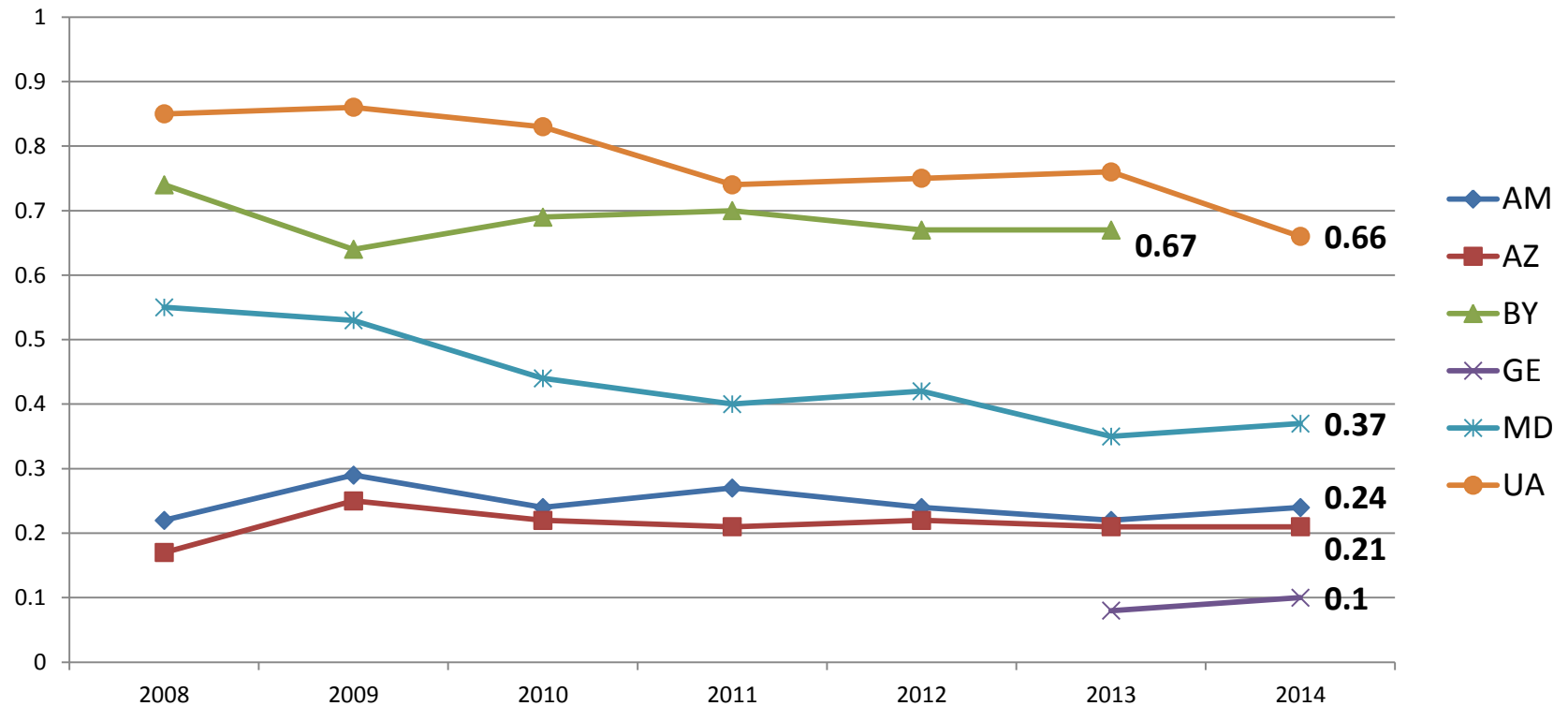
Research and development expenditure (% of GDP), 2013 in WBC-5

Germany	2.9
Austria	2.8
Slovenia	2.6
Italy	1.3
Croatia	0.8
Serbia	0.7
Macedonia	0.4
Montenegro	0.4
Bosnia and Herzegovina	0.3
Albania	..

- R&D investments are **comparable** to economies of their level of income and are either close or well below 1%
- Also, their R&D systems are largely **public driven** with very limited investments by the business sector

Limited capabilities to invest in R&D

Research and development expenditure (% of GDP), in EaP countries



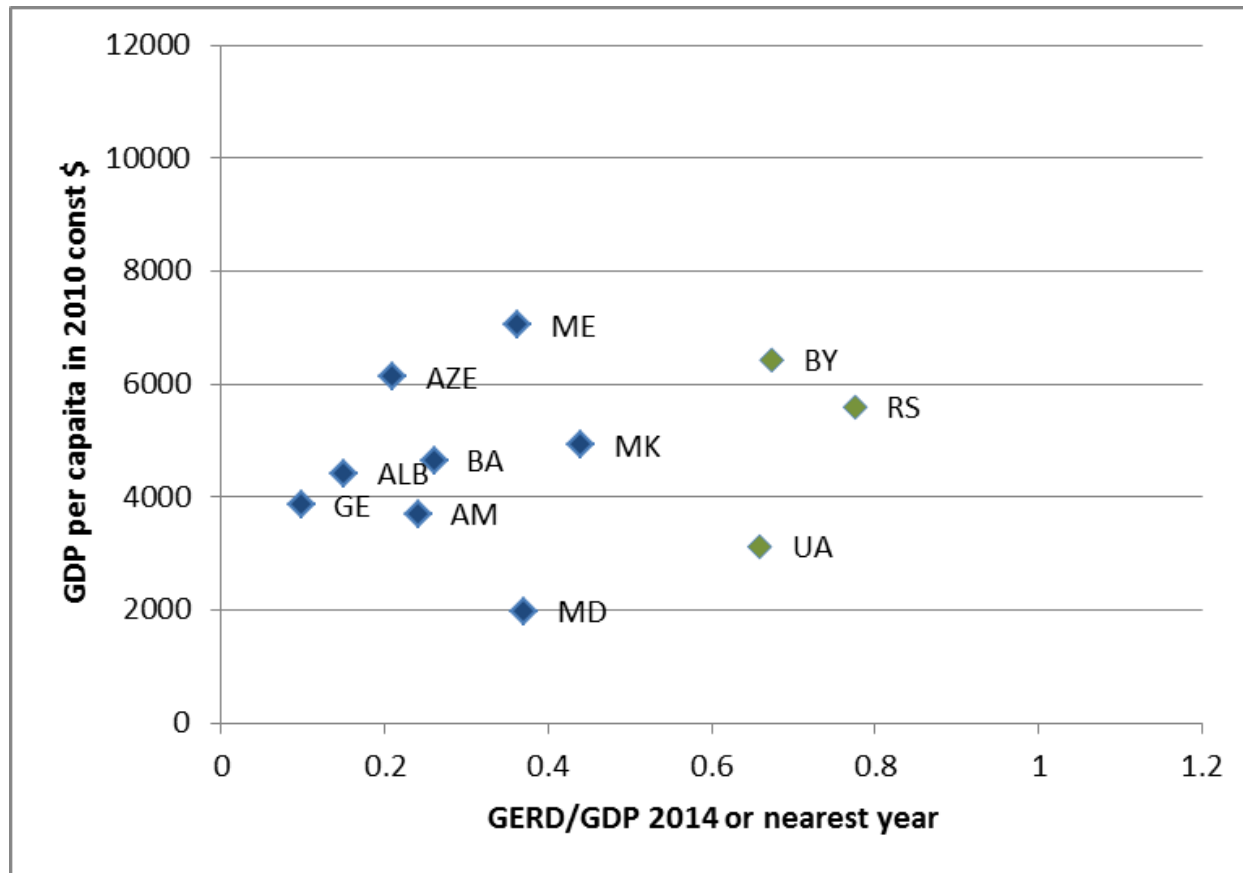
Patent applications per mn population, residents, 2014

Germany	591
Austria	243
Slovenia	228
Italy	141
Croatia	40
Serbia	28
Montenegro	21
Macedonia, FYR	20
Bosnia and Herzegovina	11
Albania	3

- The weak capacity to generate new technological knowledge

Country clusters

Gross expenditures for R&D in GDP and GDP per capita



Country groups by R&I performance

based on R&D expenditures and on comparative development of their R&I policies

- 1) **Belarus, Ukraine and Serbia** have a relatively better developed R&I support
- 2) **Armenia, Azerbaijan Georgia, Moldova, FYR Macedonia and Montenegro** are in the stage of developing their R&I instruments
- 3) **Bosnia&Herzegovina and Albania** still lack some fundamental elements for a properly functioning R&I policy

Some common features

- Small economies (except Ukraine) having **limited manoeuvre** for autonomous macroeconomic and industrial innovation policy
- **Lacking investment** in energy, transport infrastructure and vocational training
- Complex and unstable **political situation** (B&H, Macedonia FYR and Kosovo, Ukraine)
- Strong **outmigration**, high **unemployment** and unused human potential (WBC-5)
- Trade flows, FDI and integration in GVC hindered by regional **conflicts and trade sanctions** (EaP countries)
- **Low expenditure in R&D** and a **feeble business R&D** sector
- Innovation support structures and programmes in an **early stage** of development

All the E&N countries share a common feature

- their overall model of governance is rooted in the idea of a linear innovation model which puts the focus on **R&D as the main source of innovation....**

.... although their drivers of growth are different when compared to high income economies

- E&N drivers of growth are related to **physical investments, production capability, human capital and skills, openness and acquisition of foreign knowledge** and to a smaller extent to own R&D and technological capability
- **S3 will require to go beyond** a sole focus on R&D and address the issue of sectoral technology upgrading, demand-led innovation, **non-R&D drivers of growth**

Methodology : analysis of main gaps and obstacles with regard to S3 in E&N countries

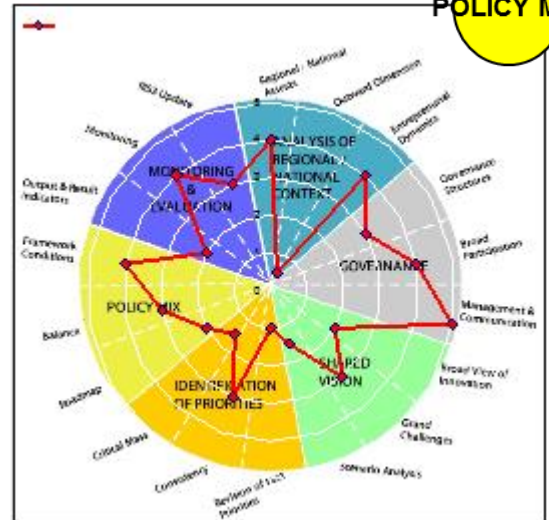
Methodology

- RIS3 Guide**

- 6 steps for developing a RIS3**

- RIS3 Assessment Wheel**

A tool to assess the essential factors for S3 based on RIS3 steps



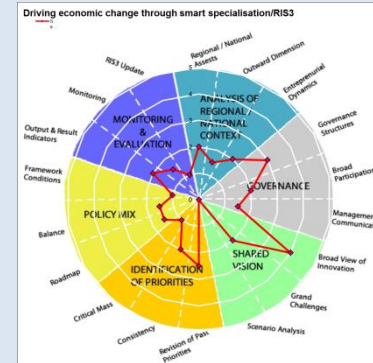
RIS3 Guide Step 1– ANALYSIS OF REGIONAL/NATIONAL CONTEXT



Analysis of national assets

Outwards dimension

Entrepreneurial dynamics



In E&N countries assessed:

- Quite **limited analytical background** in R&I documents
- The existing analysis is often **only R&D focused**
- The analysis does **not include international benchmarking**
- **Reliable statistics** on business R&D and innovation activities is **lacking**
- Analysis does not sufficiently reveal **industrial strengths** and **entrepreneurial environment**

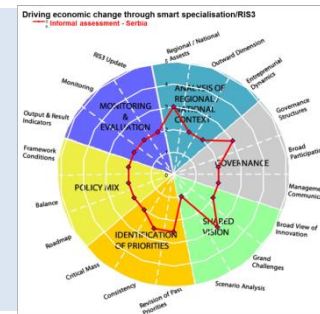
RIS3 Guide Step 2 – GOVERNANCE



Governance structures

Broad participation

Management and communication



In E&N countries assessed:

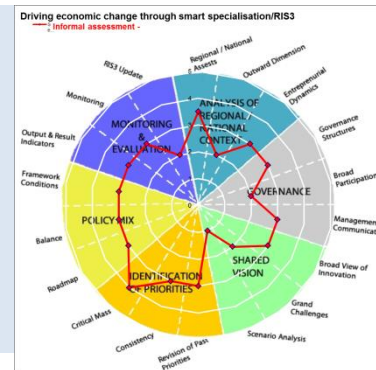
- **Public R&D focused** governance established to very different degrees in E&N countries
- Tradition of **top-down strategy** development
- **Limited involvement** of stakeholder groups
- **Low private sector involvement** in R&D and in innovation policy
- **Weak research-business links**
- **Poor conditions** for generation of **innovative enterprises**
- There are missing institutional preconditions for broad participation in S3 process

RIS3 Guide Step 3 – SHARED VISION

Broad view of innovation

Grand challenges

Scenario



In E&N countries assessed:

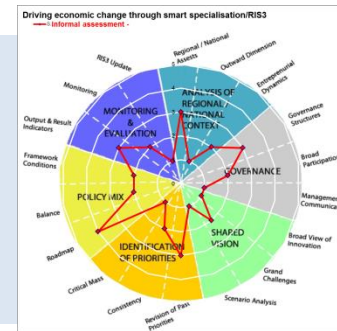
- Too narrow view of innovation confined on R&D based growth
- Focus on technological innovations, while other forms of innovation are mostly neglected
- Social and grand challenges are addressed to a very limited extent and mainly through international funding schemes
- Unable to respond to global challenges and to position itself in the global context

RIS3 Guide Step 4 – IDENTIFICATION OF PRIORITIES

Revision of past priorities

Consistency

Critical mass



In E&N countries assessed:

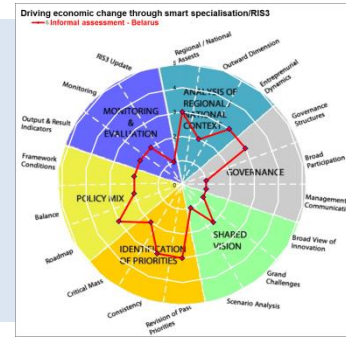
- Tradition of a **broad definition of priorities** - spreading of the low R&I funding over a wide range of priorities and **lack of focusing**
- Most of the countries **have defined thematic priorities**
- Identification of priorities is often **confined to research area** with some exceptions
- Research and industrial policies offer **different sets of priorities**;
- There is not clear picture of the **analytical consistency** between priorities and local context
- Identification of priorities is **not done systematically** enough and with appropriate methodologies

RIS3 Guide Step 5 – POLICY MIX

Roadmaps of instruments

Balance

Framework conditions



In E&N countries assessed:

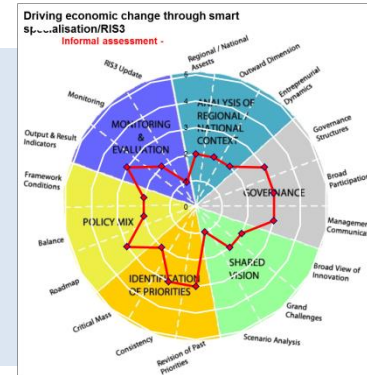
- **Low public R&I funding**, which is mostly allocated to public research institutes
- **Weak transparency** of funding allocation
- **Lack of financial resources** hampers implementation of strategies and action plans
- Policy mix confined on **public sector R&D** and commercialisation of R&D results from public sector
- Targeted and horizontal policy mix measures are **underdeveloped**

RIS3 Guide Step 6 – MONITORING & EVALUATION

Output & result indicators

Monitoring

Update

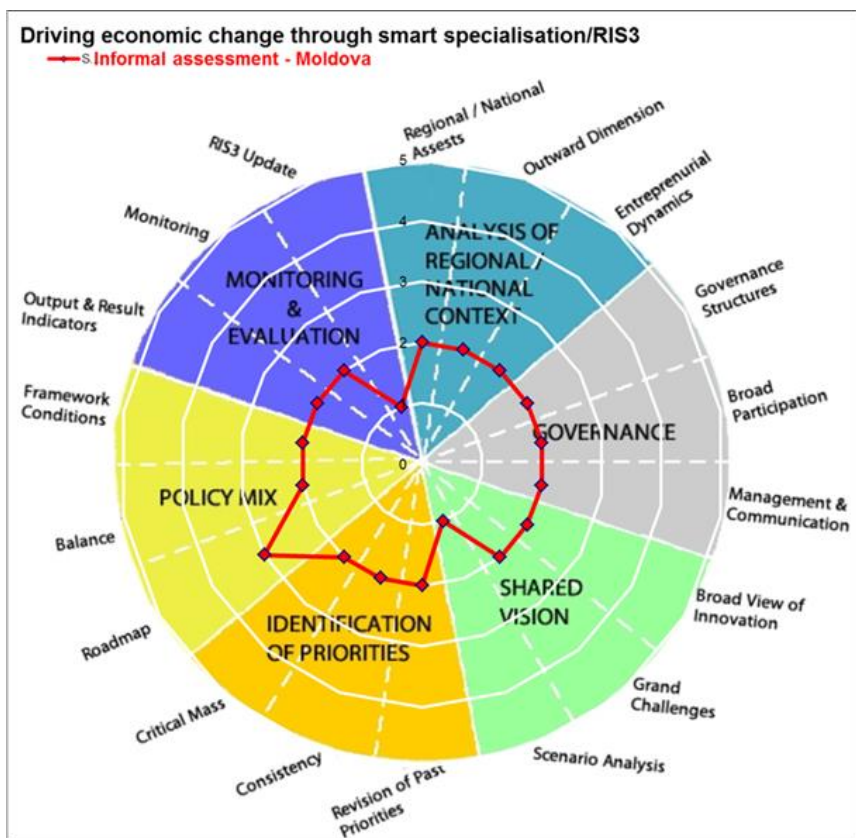


In E&N countries assessed:

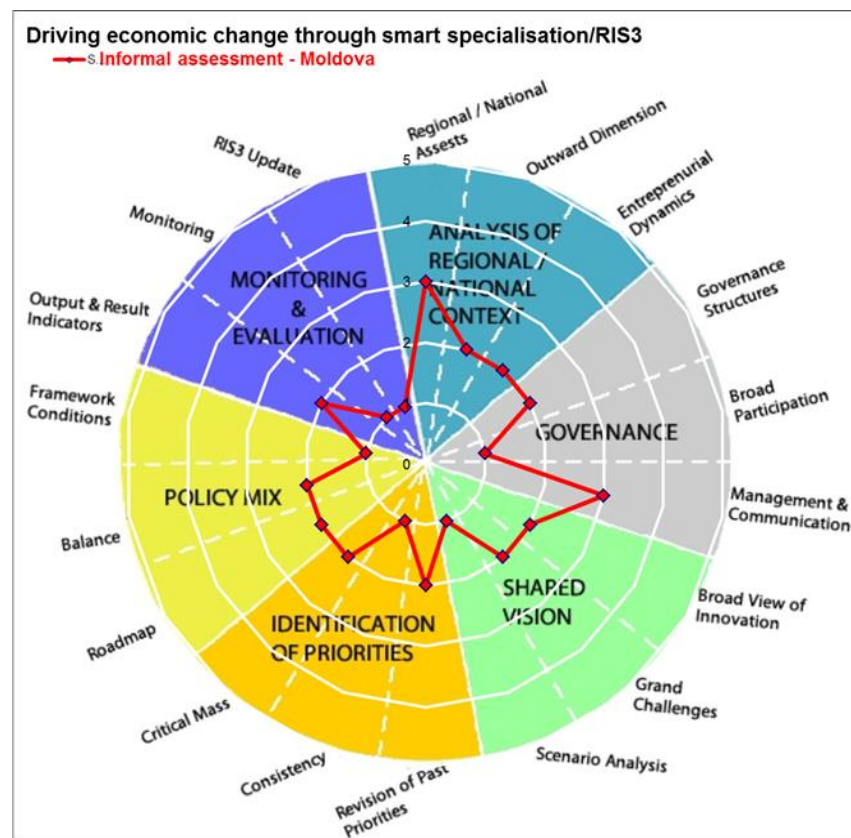
- Monitoring and evaluation is **weakly established**
- **Mismatch** between strategy development (which is relatively well established in some countries), and strategy implementation (weak)
- **Lack of evaluation standards** as well as institutions responsible for the assessment in the area of R&I
- When present evaluations are **formal** and **not easily publicly available**
- The introduction of S3 approach would require a major overhaul of the M&E systems which should also **be internationally supported**

RIS3 Wheel Assessment – MOLDOVA

Expert assessment



National assessment



Some pre-conditions before launching S3 process and recommendations

Main pre-conditions for the robust S3 process

1. **Political willingness, commitment and consensus** towards the S3 based process perceiving it as a viable and necessary approach.
2. A country should have sufficient **institutional governance and coordination capacities** to ensure interaction mechanisms among the relevant stakeholders in research, high education, private sector and public authorities.
3. A country should build **analytical and policy implementation capacities** in R&I embracing research, technological development and business innovation and improve R&I policy development and implementation quality standards.

Besides these basic preconditions the countries should take into account the following issues :

Apply broad innovation concept

- S3 is not just a part of research or innovation policy it should be on the **top of strategic agenda** integrating all relevant policies relevant for the economic transformation.
- S3 based R&I policy embraces a **broad view of innovation**, supporting technological as well as **practice-based and social innovation**.
- **Developing favourable framework conditions** and **support for business innovation** would allow developing capacities to respond to higher technological challenges in the future.



Develop inclusive governance

- The countries have to **reinforce coordination mechanism** between **private and public sector** in innovation activities. Countries should envisage which organisations in their national context are the best suited to facilitate S3 collaboration
- The **entrepreneurial discovery process** will be successful only if it is **inclusive and interactive** that means that some **institutional governance and coordination capacities** have to be in place



Respect place based specialisation

- S3 is a placed based policy concept relying on the local innovation ecosystems. Therefore especially the larger countries have to consider regional diversity and specialisation, allowing the more advanced regions to experiment with S3 pilot projects

Policy mix beyond R&D measures

- The E&N countries have to broaden their policy mix spectrum by addressing demand led business innovation, non R&D innovation, productivity and quality issues as well as technological upgrading.
- Explore which are the low-cost and administratively less demanding but effective policy mix measures that are feasible in individual E&N countries.



Develop feedback mechanisms

- **Monitoring & evaluation capacities** are critical self-reflection instruments of innovation policy and should be built as **the key learning and correction mechanism** rather than as an addendum to S3 and innovation policy activities
- It is essential that countries **gradually develop local expertise** in this area though initially, they will need to use the international assistance extensively



Build transnational links

- External support for entrepreneurial discovery processes and studying of good practice in EU countries would facilitate this process importantly
- Countries need to continue the integration to the EU R&I networks and find ways to get access to the latest good practise and knowledge in the EU countries (support schemes such as Horizon 2020 Policy Support Facility)
- Countries could benefit aligning their S3 priorities with common areas of interest of the neighbouring EU partners from the Danube and Adriatic-Ionian EU macro-regions and active participation in the platforms provided by these macro-strategies.

.... to sum up

Improving overall quality of R&I policy development would result in better readiness for S3

S3 can be considered as an opportunity and a tool to improve R&I policies

The application of S3 outside the EU has to follow the principles of differentiated approach respecting local context expectations and interest



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Invitation for Smart Interregional Cooperation in Energy

What we can do for you

- Provide guidance material and good practice examples
- Consult high quality research projects to inform strategy formation and policy-making
- Facilitate peer-reviews and mutual learning
- Support access to relevant data
- Train policy-makers
- Organise information sessions for policy-makers and present at conferences

S3 Themes | S3 Governance | S3 Targeted Support

S3 Actors | S3 Cooperation | S3 Communities

S3 Tools

Smart Regions

The Smart Specialisation Platform

The Kingdom of Smart

EYE@RIS3 | ESIF - viewer | ICT Monitoring

Regional Benchmarking | EU Trade | Data Sources

S3 Tag Cloud

S3 Platform

Open invitation to EU regions to cooperate in common S3 priority areas

Report: 'Opportunity Now: Europe's Mission to Innovate' now available

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Thank you!



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