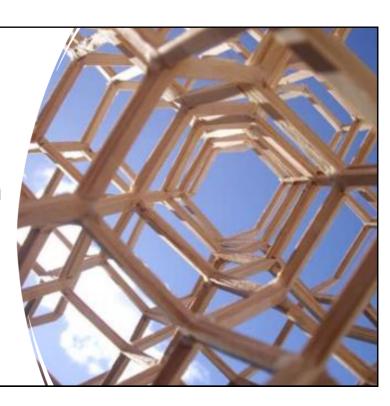
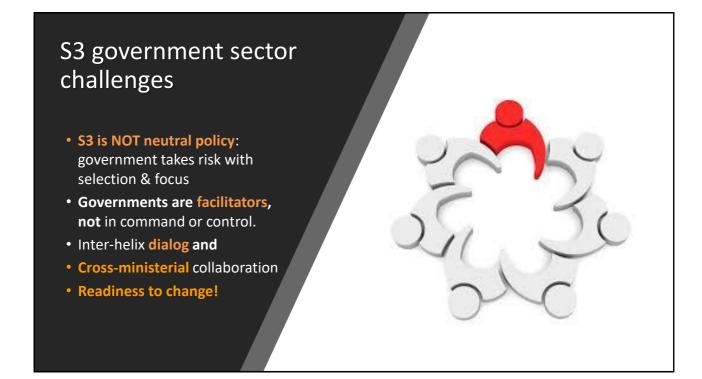
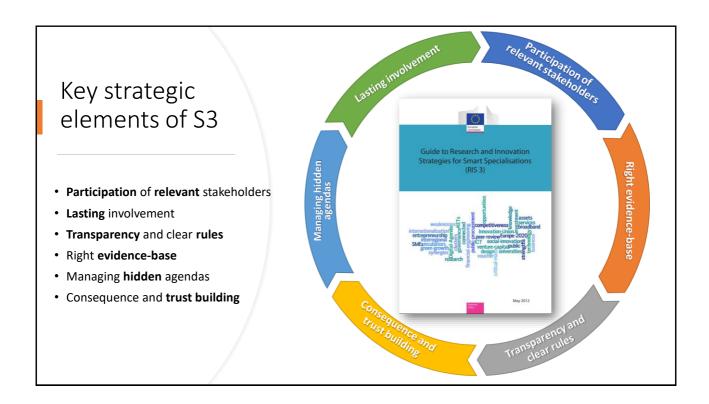
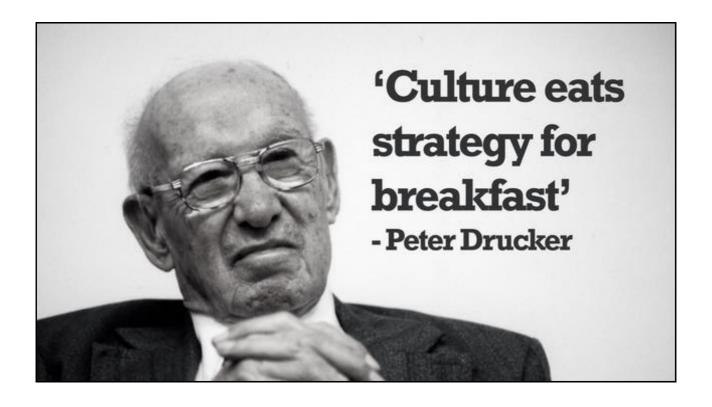


S3 design and implementation frameworks



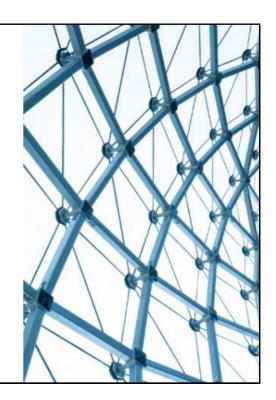






National context: Existing policy framework

- RIS3 is only one of the strategies contributing to the regional development; FDI, industrial strategies, capital investments and have tangible results and are much more popular.
- Much needed cross ministerial collaboration (economy, science, education, finance, agriculture, tourism) is seldom the case.
- In the less developed economies (horizontal)
 framework conditions tend to be the main subject of
 interest to the key stakeholders, however the RIS3 is
 not about these measures.



Macro-regional specifics: Motivation, ownership and resources for S3

- Lack of funding for implementation is hampering the motivation of additional key stakeholders from different ministries, academia and industry to participate in the RIS3 process.
- The ownership needed for implementation will only develop trough co-creation: all stakeholders feel they contributed and will also gain. But, due to the lack of participation there is also a lack of ownership.
- Countries need to (re)allocate other, mainly national resources, which can lead to conflicts regarding resources and ownership needed for implementation.
- Lack of resources for the RIS3 design seriously hamper the quality and fluidity of the process.



Macro-regional specifics: Innovation ecosystems

- Instead of intensive collaboration, today parts of innovation ecosystems operate in silos, maintaining the culture of poor dialog and non-collaboration, which further deepens the gaps among them.
- Gaps and systemic distrust make stakeholders suspicious about the clear intention of the S3 and consequently refuse to participate or share information.
- Smaller regions with small number of stakeholders.



S3 design framework

- Published in 2018: Smart specialisation framework for Enlargement and Neighbourhood countries
- Purpose: guiding the S3 design process according to the key S3 elements
- Models S3 design:
 - 5 phases with 7 stages
 - as stage gate process: process can progress only when a stage is fully completed.



Phase 1 Institutional capacity building

process

2 Analysis of Stratogic Mandato

Phase 2 Diagnosis (mapping exercise)

3. Quantitative Analysis of the Current Economic, Innovative & Scientific Potential

4. Qualitative and Detailed Analysis of Priority Domains

Phase 3 Stakeholder dialog

5. Entrepreneurial Discovery Process - EDF

Phase 4 Institutional capacity for implementation

6. Design of monitoring, implementation and financing system

Phase 5 Final strategy

7. Preparation of S3 strategy document

Stage 1: Decision to start smart specialization

- Purpose: Understanding the S3 and adequate institutional framework
- Key goals:
 - · Analysis of the local context
 - · Road mapping S3 design process
 - Awareness that S3 is overarching strategic document at national
 - · Identification of key institutions
 - Establishment of S3 design governance
 - Securing support of the JRC and TOP political commitment

1. Decision to start smart specialisation Phase 1 Institutional capacity building 3. Quantitative Analysis of the Current Economic, Innovative & Scientific Potential Phase 2 Diagnosis (mapping 4. Qualitative and Detailed Analysis of exercise) Phase 3 Stakeholder dialog Phase 4 Institutional 6. Design of monitoring, implementation and financing system capacity for implementation Phase 5 Final strategy

Stage 2: Analysis of strategic mandates

- Purpose: agreed positioning and adequate support for S3 design which is among TOP priorities with
- · Key goals:
 - Engagement of key institutions and pro-active staff to participate in S3
 - Identification existing economic, scientific or innovative priorities in exiting strategies, policies and instruments.
 - Identification of sources of funding for implementation
 - Alignment of key actors on the mandate and importance of S3
 - * Checking compliance of national legislation on strategy design with FW

Phase 1 Institutional capacity 2. Analysis of Strategic Mandates building Phase 2 Diagnosis (mapping exercise) Phase 3 Stakeholder dialog Phase 4 Institutional capacity for implementation Phase 5 Final strategy

Stage 3: Analysis of existing economic, scientific and innovative potential

- Purpose: provide foundations for the identification of priority areas based on the official data
- · Key goals:
 - Engage key institutions to provide quantitative data
 - Initial mapping by int. expert to indicate preliminary areas
 - Adjust methodology to local context with local experts
 - Engage stakeholders and consult results
 - Report with improved preliminary S3 areas

Phase 1 Institutional capacity building Phase 2 3. Quantitative Analysis of the Current Economic, Innovative & Scientific Potential Diagnosis (mapping 4. Qualitative and Detailed Analysis of exercise) Phase 3 Stakeholder dialog Phase 4 Institutional 6. Design of monitoring, implementation and financing system capacity for implementation Phase 5 Final strategy

Stage 4: Qualitative Analysis of Priority Domains

- Purpose: complementing quantitative analysis and compensating for the lack of official data in setting priorities
- Key goals:
 - Engage local field experts
 - Build capacities and Co-develop a comprehensive plan
 - Qualitative data collection trough interviews and focus groups
 - Preliminary analysis and Final Report with priority areas, key stakeholders and inputs for shaping the EDP
 - Joint decision on priority areas for EDP with JRC

Phase 1 Institutional capacity building 3. Quantitative Analysis of the Current Economic, Innovative & Scientific Potential Phase 2 Diagnosis (mapping 4. Qualitative and Detailed Analysis of exercise) **Priority Domains** Phase 3 Stakeholder dialog Phase 4 Institutional capacity for implementation Phase 5 Final strategy

Stage 5: Entrepreneurial Discovery Process

- Purpose: stakeholder dialog to define priorities and get key input for S3 a transformative policy mix
- Key goals:
 - Engage local experts and build their capacities
 - Co-develop a comprehensive plan
 - · Establish legitimate working groups
 - Secure lasting participation trough series of 4 thematic workshops
 - Documenting stakeholder input
 - Report with definition of S3 areas, input on SWOT, vision, strategic goals and policy mix.

Phase 1 Institutional capacity building 3. Quantitative Analysis of the Current Economic, Innovative & Scientific Potential Phase 2 Diagnosis (mapping 4. Qualitative and Detailed Analysis of exercise) Phase 3 Stakeholder 5. Entrepreneurial Discovery Process - EDP dialog Phase 4 Institutional 6. Design of monitoring, implementation and financing system capacity for implementation Phase 5 Final strategy

Stage 6: Design of monitoring, implementation and financing system

- Purpose: develop feasible system that will enable and support S3 implementation
- · Key goals:
 - Organization of meetings/ workshops with JRC for guidance
 - Development of appropriate policy mix indicators and design feasible monitoring system.
 - Definition of finance scheme for implementation of the policy mix.
 - Definition of governance system that will enable and foster the efficient and effective implementation.

Institutional capacity building Phase 2 Diagnosis (mapping exercise) Phase 3 Stakeholder dialog Phase 4 Institutional 6. Design of monitoring, implementation capacity for and financing system implementation

Phase 5 Final strategy

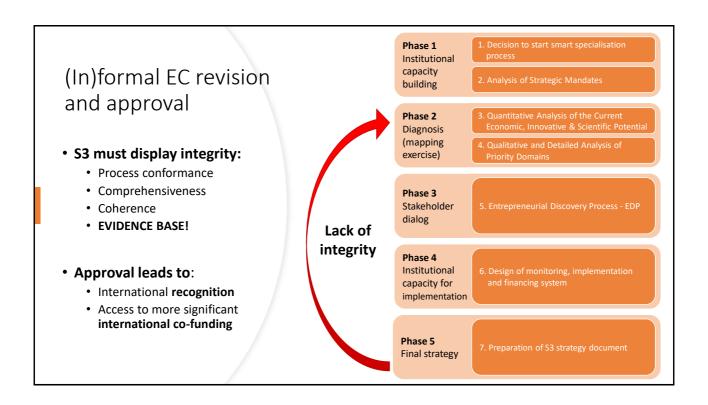
Phase 1

7. Preparation of \$3 strategy document

Stage 7: Preparation of S3 strategy document

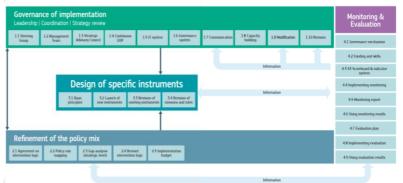
- Purpose: feasible and evidencebased S3 document that is national and internationally recognised
- · Key goals:
 - Draft of RIS3 strategy document
 - Rationale and consultation with national stakeholders
 - EC revision and approval
 - · National adoption

Phase 1 Institutional capacity building 3. Quantitative Analysis of the Current Economic, Innovative & Scientific Potential Phase 2 Diagnosis (mapping 4. Qualitative and Detailed Analysis of exercise) Phase 3 Stakeholder dialog Phase 4 Institutional 6. Design of monitoring, implementation and financing system capacity for implementation Phase 5 7. Preparation of S3 strategy document Final strategy



S3 implementation framework

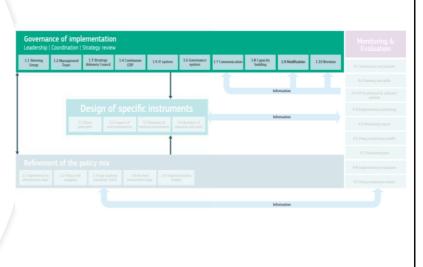
- Published in 2022: Smart Specialisation implementation framework for the EU Enlargement and Neighbourhood Region
- Purpose: guidance for institutional setup and processes that will:
 - continuously oversee and manage efficient and effective implementation of S3,
 - · foster S3 key elements,
 - enhance the political commitment and general awareness of the effects of S3
- Structure:
 - · 4 building blocks with several elements
 - Blocks and their elements interact
 - May often be carried out in parallel or may be iterated in case results are influenced by preceding stages



Block 1:

Governance of implementation

- Purpose: institutional background to continuously oversee and manage implementation of \$3
- Key elements:
 - Governance bodies
 - Capacity building for governance bodies
 - Continuous EDP
 - System for modification and revisions
 - Communication on S3
 - IT system
 - Sustainable funding for governance



Montenegro – example of good practice

- Internationally recognised for:
 - Setup of Governance bodies for implementation
 - · System for continuous EDP
 - Flagship initiatives
- New positive developments:
 - S3 communication guidelines

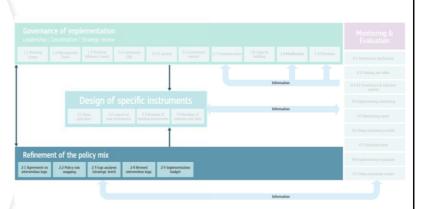




Block 2:

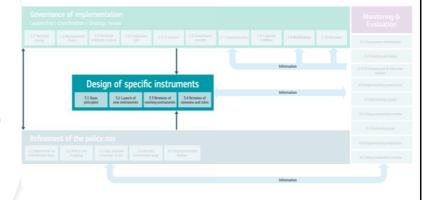
Refinement of the policy mix

- Purpose: re-definition / update of a coherent set of policy instruments to compensate for the time gap between design and implementation
- · Key elements:
 - Policy mix mapping
 - Policy mix gap / over-lap analysis
 - **Re-confirmation** on intervention logic
 - Preparing the implementation budget



Block 3: Design of specific instruments

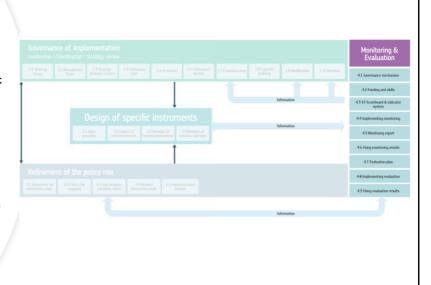
- Purpose: developing details on the preparation and deployment of individual policy instruments
- Key elements:
 - Setting up of basic principles for instruments (general/specific, open call/flagship, territorial)
 - Practical steps to launch new S3 instruments
 - Practical steps to revise existing instruments
 - Revision of role of existing structures



Block 4: Monitoring and Evaluation

 Purpose: follow-up and the strategic intelligence needed for effective deployment and revision of S3

- Key elements:
 - Governance mechanisms for monitoring and evaluation: collaboration principles, ME body, communication principles
 - Funding and skills for M&E
 - S3 Scoreboard and indicator system
 - Implementing, reporting and using monitoring results
 - Setting up plan, implementing evaluations and using results



Duration	of S3	design	by	stage	S	١
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	Montenegro	Serbia	Serbia North Macedonia		Kosovo*	BiH	Türkiye - Trakya	Average	Average (excl. extreme)
Decision to start smart specialisation process	2	2	2	3	5	30	3	7	2,8
Analysis of strategic mandates	3	1	4	1	3	1	3	2	2,0
Analysis of existing economic, scientific and innovative potential (quantitative)	3	5	9	27	6	8	5	9	6,0
In-depth analysis of priority domains (qualitative)	1	6	7	12	7	7	6	7	5,7
EDP - Entrepreneurial discovery process	11	3	5	21	8			10	6,8
Design of monitoring, implementation and financing system	2	4	1	1	2			2	1,5
Preparation of S3 strategy document	8	4	8					7	6,0
DESIGN PHASE duration including pauses	27	39	70	69	67	65	27	52	30,8

Stage 2: Analysis of strategic mandates



Key inputs and enabling factors

- Roadmap for S3 design
- S3 team with strong mandate and TOP level support
- Key institutions engaged (especially ministries and implementing agencies)
- Engagement of **pro-active staff** from key institutions to provide input



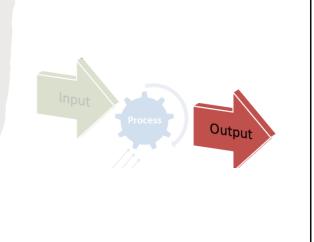
Process: sub-stages, activities and roles

Nr	Sub-stage	Activities	Role of national/ regional administration
2.1	policies and priorities	innovative priorities and domains present in strategies and policies	Providing the overview of the strategies, policies and instruments
2.2	S3 in the strategic	The national/regional S3 team should decide how smart specialisation strategy will be adopted and how it will be coordinated with other relevant policies	Adopting a decision
2.3	national/ regional dimension of S3	Depending on the size of the country and existing subnational administrative structure, a decision should be taken on the territorial dimension of S3 – it is always recommended to have a regional approach, if possible	Adopting a decision



Key outputs

- Identification existing economic, scientific or innovative priorities in exiting strategies, policies and instruments – BASIS for policy harmonization!
- Identification of **possible** sources of **funding** for implementation
- Decision of key actors on the mandate, importance and level of S3
- Checking compliance of national legislation on strategy design with process defined by the FW



Satisfaction with the stage

	Montenegro	Serbia	North Macedonia	Albania	Kosovo*	BiH	Türkiye - Trakya	Average
Decision to start smart specialisation process	4	4	4	5	4	2	5	4,0
Analysis of strategic mandates	3	4	4	4	5	2	3	3,6
Analysis of existing economic, scientific and innovative potential (quantitative)	3	3,5	3	3	3	4	5	3,5
In-depth analysis of priority domains (qualitative)	4	4,5	3	4	4	4	1	3,5
EDP - Entrepreneurial discovery process	4	4,5	5	5	5			4,7
Design of monitoring, implementation and financing system	4	2,5	3	-	3			3,1
Preparation of S3 strategy document	4	3	3					3,3
DESIGN PHASE AVERAGE	3,7	3,7	3,6	4,2	4,0	3,0	3,5	
STANDARD DEVIATION	0,5	0,8	0,8	0,8	0,9	1,2	1,9	

Cases: Analysis of strategic mandates

Kosovo:

- Originally, S3 was not a strategic priority, so there was an 18-month pause after the launch.
- In the 2nd stage, the shortcoming was recognised and S3 became coordinated by the Strategic Planning Office in the Prime Minister's Office.
- The change in management and mandate enabled the repositioning of S3 among the top strategies, unlocking also the long pause in the process.

Bosnia & Hercegovina:

- Well behind in S3 BiH made the analysis in a month without any participation of key institutions.
- When drafting first EDP plan key inconsistencies regarding the regional/national dimensions, legislation and key actors appeared.
- Priorities for EDP not confirmed. Process is stopped. The analysis of mandates must be improved and agreed upon before the continuation.



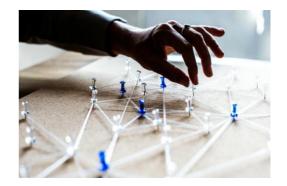
Key factors of success

- Comprehensive mapping of key institutions that are planning and implementing R&D&I related measures
- Engagement of pro-active staff from key institutions to provide input on priorities in existing and planned strategies, policies and instruments
- **3. Alignment of key actors** on the mandate and importance of S3
- 4. Strong mandate of S3 team and Top-level political support
- The analysis of strategic mandates should not be a one-off activity during S3 design, but a continuous effort throughout the design and implementation of S3.



Dependencies

- Lack of top level government commitment: poor engagement, poor input and quality of analysis
- Poor identification of institutions / priorities: overlapping of S3 with other policies, funding "cannibalism", lack of government stakeholder participation, lack of ownership for implementation
- Wrong decision on national / regional dimension: inability to plan, implement and monitor measures
- Non-compliance with legislation: procedural issues and delays when approving / adopting RIS3
- Lack of mutual agreement: poor ownership, engagement and cross ministerial collaboration



Stage 3: Analysis of existing economic, scientific and innovative potential



Key inputs and enabling factors

- Roadmap for S3 design
- S3 team with strong mandate
- Decision on national / regional level
- Key agencies engaged (especially office for statistics and IP office)
- Engagement of international and local experts



Process: sub-stages, activities and roles

Nr	Sub-stage	Activities	Role of national/ regional administration
3.1	Provision of statistical data	For quantitative mapping following data is needed: industrial subsectors(NACE rev. 2, 3 or 4 digit, 5-10 year period):* Employment* Value added* Number of companies* Wages* Share of innovative companies (CIS indicators)product groups or subsectors* Export areas of science* Scientific publications* Patent education profiles* Number of students/graduates at HEI* STEM graduates The data should be provided by national statistical office and national patent office	Arranging the data provision
3.2	Mapping of economic, innovative and scientific potential	Mapping is a statistical analysis of main strengths and specialisations in terms of economic, innovative and scientific potential. Its objective is to indicate preliminary areas of smart specialisation based on the expert assessment of matches between the three types of potential. JRC provides relevant methodologyfor this exercise.	Supporting data collection, providing additional sources and consulting the process
3.3	Creation of the local expert team	Local expert team cooperates with the international expert in order to understand the methodology and help adjust it to the country profile and needs. It is made of scientists with relevant expertise in economics, economic geography, sciento metrics and patent analyses.	Identifying and mobilising local experts
3.4	Additional analyses	Additional analyses can provide better understanding of the priority domains. They can include international benchmarking, analysis of value chains, revealed comparative advantage and other relevant issues	Identifying existing analyses that can be useful or commissioning new ones
3.5	Consultation with stakeholders	The results of the mapping exercise must be consulted with internal and external stakeholders. Internal stakeholders include all the ministries and departments that have competences concerning the analysed potentials. External stakeholders are representatives of business, academia and NGOs relevant from the point of view of the preliminary smart specialisation domains.	Organization of the consultations and invitation of appropriate stakeholders
3.6	Publication of the report	The smart specialisation process has to be transparent. The mapping report should be made available to the public minimum in electronic version and made available (in English) on the S3 Platform portal. If necessary it should also be translated to the local language.	On-line publication of the report and providing an electronic version for S3 Platform



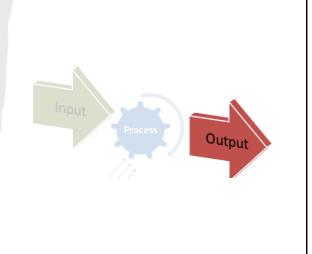
Process improvements: Measuring territorial innovation strengths

- Published by the JRC
- Authors: Hollanders, H., Tolias, Y., Radovanovic, N., Gonzalez Evangelista, M., Fabbri, E., Gerussi, E., Sasso, S., Miedzinski, M.
- · Contains also:
 - Mapping economic and innovation potential – review and potential improvements
 - Lessons learned and recommendations on improvements of the mapping methodology for scientific potential



Key outputs

- Initial mapping by international expert to indicate preliminary areas
- Adjusted methodology to local context with local experts
- Report with improved preliminary S3 areas



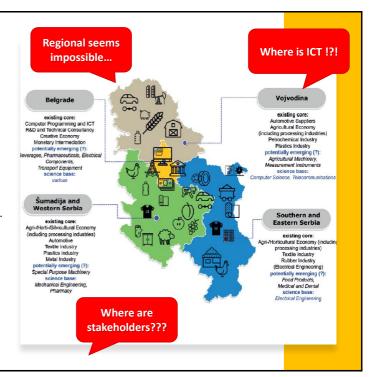
Satisfaction with the stage and key factors

	Montenegro	Serbia	North Macedonia	Albania	Kosovo*	BiH	Türkiye - Trakya	Average
Decision to start smart specialisation process	4	4	4	5	4	2	5	4,0
Analysis of strategic mandates	3	4	4	4	5	2	3	3,6
Analysis of existing economic, scientific and innovative potential (quantitative)	3	3,5	3	3	3	4	5	3,5
In-depth analysis of priority domains (qualitative)	4	4,5	3	4	4	4	1	3,5
EDP - Entrepreneurial discovery process	4	4,5	5	5	5			4,7
Design of monitoring, implementation and financing system	4	2,5	3	-	3			3,1
Preparation of S3 strategy document	4	3	3					3,3
DESIGN PHASE AVERAGE	3,7	3,7	3,6	4,2	4,0	3,0	3,5	
STANDARD DEVIATION	0,5	0,8	0,8	0,8	0,9	1,2	1,9	

Case: Quantitative Analysis in Serbia

No best practice in QA in Western Balkans... Analysis in Serbia done in 2017, prior to JRC FW:

- Challenge 1: Vojvodina region is well known as centre of ICT in Serbia, but this was not recognised by the Quantitative Analysis
- Conclusion 1: Companies used different NACE classification that made them legible for tax relives. To be resolved in the Qualitative analysis.
- Challenge 2: In current policy landscape it is not feasible to implement RIS 3 on regional level.
- Conclusion 2: Key actors need to get aligned again on the mandate & dimension of S3.
- Challenge 3: Poor stakeholder participation in QA presentation and EDP test workshop using methodologies established elsewhere.
- Conclusion 3: Need for custom & bottom up approach tailored to local context.



Key success factors

- Timely acquisition of **additional resources** and selection of experts
- Preliminary request for participation of key agencies / sources of data
- Strong mandate of S3 team and Top-level political support
- Quantitative analysis methodology tailored to the regional context



Dependencies

- Poor participation of key agencies: delay in process, missing potential new priority
- Poor availability of data: delay in process, missing potential new priority areas
- Poor methodology: missing potential new priority areas

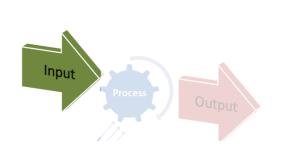


Stage 4: Indepth analysis of priority domains (qualitative)



Key inputs and enabling factors

- First preliminary priority S3 areas
- Roadmap for S3 design
- Decision on strategic mandate of S3
- Decision on national / regional level
- Information on budget (order of magnitude)
- Funding for experts and event(s)
- Engagement of expert



Process: sub-stages, activities and roles

Nr	Sub-stage	Activities	Role of national/ regional administration
4.1	Expert interpretation of the	The qualitative interpretation of the results is necessary to overcome the constraints of	Organization of the
	results of mapping exercise	existing industry and scientific classifications and uncover real sectors and value chains	qualitative analysis
		they represent. Specific value chains for priority domains have to be identified together	
		with challenges and trends. It can be done on the basis of in-depth interviews, focus	
		groups or case studies with experts representing the key and most innovative	
		companies, sectorial experts and researchers cooperating with business. If interviews are	
		considered, minimum 10-15 interviews with key organisations should be conducted per	
		preliminary priority domain. The result of this analysis is the better definition of	
		preliminary priority domains for the purposes of entrepreneurial discovery process.	
4.2	Publication of the report	The smart specialisation process has to be transparent. The qualitative report should be	On-line publication of the
		made available to the public minimum in electronic version and made available (in	report and providing an
		English) on the S3 Platform portal. If necessary it should also be translated to the local	electronic version for S3
		language. Mapping report and qualitative report can be published together.	Platform
4.3	Decision on priority	After the quantitative an qualitative analysis, a common panel should be organized	Organization of the panel and
	domains for EDP	involving national smart specialisation team, experts and JRC representatives in order to	inviting experts
		establish the priority domains for the entrepreneurial discovery process.	



Process improvements: Methodological guidelines for qualitative analysis

- Published by the JRC
- Authors: Radovanovic, N., Bole, D.
- Contains also:
 - Macro-regional specifics influencing the QA stage
 - Lessons learned from EU enlargement region
 - Step-by-step methodological advice



Key outputs

- Precise plan of implementation
- Data collection trough interviews
- · Preliminary analysis
- Focus groups reports
- Final Report with key priority areas, key stakeholders and inputs for shaping the EDP
- Joint decision on S3 priorities for EDP with JRC



Satisfaction with the stage and key factors

	Montenegro	Serbia	North Macedonia	Albania	Kosovo*	ВіН	Türkiye - Trakya	Average
Decision to start smart specialisation process	4	4	4	5	4	2	5	4,0
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Design of monitoring, implementation and financing system	4	2,5	3	-	3			3,1
Preparation of S3 strategy document	4	3	3					3,3
DESIGN PHASE AVERAGE	3,7	3,7	3,6	4,2	4,0	3,0	3,5	
STANDARD DEVIATION	0,5	0,8	0,8	0,8	0,9	1,2	1,9	

Stage 4 case: Qualitative Analysis in Serbia

- Initially planed to start in May 2018, last 4 months, done by existing local S3 team and no additional funding.
- The newly published FW raised the demands and process stopped due to lack of resources and lack of knowledge.
- Involvement of new institutions due to EU progress report
- Additional resources & preparation to unlock the process:
 - 12 Local experts: 2 recognised insiders for each priority area
 - Detailed tailored plan and Intensive capacity building
 - Preparation for interviews and promotion of S3
 - · Case study for ICT
- Very resource demanding: 8 months, 20+ people, €20,000+
- Same local experts engaged to also implement the EDP, thus trust building and collection of input for EDP began simultaneously.





Key success factors

- Selection of top local experts (that would ideally lead also the EDP)
- Intensive training of experts conducting interviews as this is also the first contact with key stakeholder that must remain in the S3 process
- Tailor-made plan and guidelines should be developed with a precise action plan and timetable, as well as the necessary resources.
- Limit the number of additional topics to be explored in the qualitative analysis.



Dependencies

- Poor selection of experts: low quality of analysis including justification and selection of priority areas for EDP
- Incomprehensive analysis: poor identification of key stakeholders, lack of input on preferences for FDP
- Poor justification of priorities: support for promising area lost for one S3 cycle
- Poor identification of stakeholders for EDP: low critical mass leading to exclusion of potential priorities
- Lack of input on preferences for EDP: threat of designing EDP in wrong way leading to inadequate participation



