

Assessment of Smart Specialisation Strategies implementation and its impact

Webinar 3/: Impact of adopting Smart Specialisation Strategies in terms of growth and jobs

Online working meeting Sug-group 2 19 November 2020

> Joint Research Centre

Impact of adopting Smart Specialisation Strategies in terms of growth and jobs (1/1)

Impact of S3 in macro-economic terms	Factors / policy instruments triggering changes	Indicators
Centro (PT): Centro no evaluation done yet. Will do at start of new period. Data taken from monitoring system what they have so far: Positive signs: upward movement in innovation scoreboard, to strong innovator. Expected that this will translate itself in macro-economic indicators.	Centro: a very important role in the improved innovation performance is being played by companies. A big percentage of regional enterprises invest in innovation, especially in the product and process innovation	Centro: EU Regional innovation scoreboard
Andalusia (ES): intermediate evaluation has been done. Able to measure impact, but difficult to distinguish the real impact coming exclusively from S3. Analysis of convergence shows differences between Andalucía and other Spanish regions are becoming smaller. E.g. ICT, high knowledge activities. Difference within the region: certain municipalities benefiting more than others.	RIS3 Andalucía' s contribution to sustainable development is high, with the majority of administrative centers of the Regional Government of Andalusia having carried out actions to foster sustainable development and many of the business projects supported have been geared towards that objective, fundamentally through the development of more sustainable products and energy saving and raw materials.	Andalusia: A panel of official indicators have been designed and put in place for RIS3Andalucia consisting of 28 indicators (12 of context and 16 of results for the medium and long term), defined in the own planning framework from information sources provided by official statistics, guaranteeing technical rigor for data production, obtaining information following reliable, stable, precise, efficient and proven methodologies, as well as the availability of regular updated information (<u>https://www.ieca.junta-andalucia.es/indris3/index.htm</u>)



Impact of adopting Smart Specialisation Strategies in terms of growth and jobs (2/2)

Impact of S3 in macro-economic terms	Factors / policy instruments triggering changes	Indicators
Lapland (FI): Haven't done evaluation of S3 impact yet. But monitoring constantly. Certain industries monitored closely.	In Lapland, Arctic Smartness concept is the leading initiative for implementing Smart Specialisation. The implementation of Arctic Smartness is based on regional cooperation, and it works like an ecosystem, where the actors share common goals to develop Lapland. The six Arctic Smartness Clusters act as engines for the regional development. ERDF is important in fostering this development, e.g. in developing new clusters	Lapland: As the regional development strategy (Lapland agreement) and Lapland S3 strategy (Arctic Smartness) are supporting each other, evaluation of the Arctic Smartness is to be conducted within the evaluation of the Lapland Agreement. Evaluation is now ongoing, and its results shall be in use in August 2021. Update of the Lapland Agreement shall be done during 2020-2021.
Lithuania (LT): no evaluation has been done yet. But clear that although S3 probably hasn't caused a revolution, it surely has triggered an evolution, meaning 'step by step' improvements.	LT: S3 has become a single strategy ('merging of strategies'). This has created more stability within the innovation-ecosystem (no more competing strategies).	E.g. Lithuanian science R&D capacity to create innovative technologies or processes Ability to implement joint research and business projects Lithuanian business R&D&I capacity to develop and
Northern Netherlands (N-NLs): Compared to other regions in the NLs, the N-NLs have traditionally been lagging behind. But over recent years macro- differences have started to get smaller. Even though small country and small region: substantial differences within the region: city of Groningen (booming, innovation driver) vs rest. Difficult and probably too early to see at this macro- level whether and to what extent 'S3' has contributed. At lower levels (meso, micro) more easy.	N-NLs : What has been noticeable is an increasing quest for renewal: new developments in several areas, achieved through collaborative initiatives, with knowledge institutes being key drivers for change.	 apply innovative technologies or processes Ability to participate in the most value-added parts of the global value chain. N-NLs: focus on indicators which give insight in dynamics of the innovation ecosystem: behaviour of SME's, linkages within the system, collaboration, innovation performance, potential new areas of specialisation.

Impact of adopting Smart Specialisation Strategies in terms of growth and jobs (1/2)

Sectoral Impact of S3	Factors / policy instruments triggering changes	Indicators
Centro : S3 is cross sectoral. Identify cross sectorial links Green transition is important. Monitoring if actors are innovating in these areas. Value chain approach.	Centro : more and more companies are collaborating across sectors.	
Andalusia: Intermediate Evaluation has evidenced the S3 impact on certain priority areas: Manufacturing industry (most benefitted from innovation support : 55.9% of subsidies regarding sectorial distribution of assistance granted by IDEA Agency); High medium-high technology (30.2% of incentivized investment, while these activities represent around 5% of GVA in the Andalusian economy); "Agroindustry & healthy eating" and "Renewable energies, energy efficiency & sustainable construction" concentrate also incentivized investments; "ICT & digital economy" had also a great number of projects approved.	Andalusia : spill-over effects can be noticed, like a high degree of cooperation in the development of R&D projects, an increase in the level of business competitiveness based on greater specialization, internationalization and concentration of efforts to solve the key needs of companies.	
Lapland: strong economic backbones. Present in S3 but new areas of priority as well. Focus is in creating more added value from natural resources and conditions.	Lapland : e.g. high impact action pilot: agro-forestry sector value chain. Cross sectoral collaboration between East and North Finland regions, creating collaborative projects to develop solutions for end user. Added value and chain link approach. Single strategy, improving research and innovation climate.	



Impact of adopting Smart Specialisation Strategies in terms of growth and jobs 2/2

Sectoral Impact of S3	Factors / policy instruments triggering changes	Indicators
Lithuania (LT): Priority areas still quite sectorial. But an Increase in cross sectorial activities is surely visible. Happening naturally, without push. No specific instruments used Evaluation, not certain on methodology yet. Best would be counterfactual. Difficult to do. Where quantitative data are not available, qualitive data will be used.	LT: single strategy, improving research and innovation climate	LT: The Lithuanian S3 priorities in most cases are constructed as combination of sectors and research fields, so to make a logical attribution of activities within S3 priorities to economic indicators is hard. Nevertheless, the monitoring reports do provide such information and indicators as the share of GDP or value added of sectors, that can be attributed to the S3 are monitored.
N-NLs : the NNLs have traditionally been strong in areas like energy (natural gas), health, agro-food (dairy, potatoes). Over the past years, in line with and supported by S3 strategy new developments in related areas, often at 'crossings of sectors': e.g. hydrogen, green chemistry, personalized heath	N-NLs : strong emphasis on collaborative actions, initiatives, infrastructure, fostering interaction between companies, between companies and knowledge institutes. Enlarging the 'circle' of SME's involved	N-NLs : constantly improving monitoring system to being able to catch the development of new potential areas of specialization. In most cases standard methods and indicators don't suffice. New methods employed and initiatives taken, like Ron Boschma & PA Balland Relatedness model, Data mining efforts



Impact of adopting Smart Specialisation Strategies in terms of growth and jobs

S3 impact in terms of jobs and growth	Factors / policy instruments triggering changes	Indicators
Centro : Difficult to distinguish from external factors. E.g. current crisis. Human resources : - labor productivity Circular economy – green jobs	Centro: the fundamental role of the existing clusters in the implementation and communication of Centro RIS3	 RIS3Andalucia contemplates the outcome indicators for TO1, Andalusian ERDF OP: R001D. % companies making technological innovations
Andalusia : Collaboration in R&D projects, expect to translate in jobs & growth in longer term	Andalusia: RIS3, as strategies aiming to promote a change at the regional innovation systems, the way in which this change is being afforded and accomplishing should be tackled earlier, applying a less quantitative	 R001E. % companies that make technological innovations and cooperate with universities, public organisms for research, technological centres,
Lapland: no evaluation done yet Focus on modernizing economy	and more qualitative approach, through methodologies such as the MSC (Most Significant Change) or similar, whose implementation is based on mixed tools and	 R001S. Spanish participations in international project consortiums within H2020 program (number)
	focuses on the perception of the beneficiary population.	 R003G. % documents published in scientific journals Q1
Lithuania (LT): Regarding jobs that can be attributed to S3, a positive example is bio	Lapland: Actively fostering interregional and	• R003H. Scientific production of Andalusia (number)
technology, an area with high added value Discussion at the moment regarding 'added value jobs': choose cherry picking or take broader approach An important positive, generic effect: research climate in LT has definitely improved: more and	international collaboration Attraction of region: / working on positive image to get skilled work force Adding value by refining of natural resources and conditions: new business models/ value chains	 R112G. Patents applied to SPTO (number) (Spanish Patents and Trademarks Office)
more researchers. This effect can be directly attributed to S3	LT: improvements in research climate, ecosystem, alignment of strategies.	European Commission

Impact of adopting Smart Specialisation Strategies in terms of growth and jobs

S3 impact in terms of jobs and growth	Factors / policy instruments triggering changes	Indicators
 N-NLs: too early to say and to see true economic/industrial transition In addition economy highly diversified, not dependent upon few specific areas. Impact not so much in 'jobs and growth' but in 'enabling areas' Andalusia: Since 2014, Andalusia has converged with Spain on 7 of the 15 areas referred to in the final objectives of RIS3Andalucía. The convergence has arisen primarily in the use of ICTs in innovative companies and in export manufacturers of high and medium-high technology, insofar as the difference with Spain has lied primarily in innovation spending and the intensity of innovation. Convergence with respect to the EU has been similar to Spain's, with a reduction in the differences in general aspects of R&D and companies in the digital Market. 	 N-NLs: Combination of generic and specific approach: generic – improving innovativeness of region, workings en strengths of the innovation ecosystem (SME's, human capital, digitalization, ecosystem) & fostering development of specific areas Andalusia: Spill-over effects addressing the Companies: better market positioning, development of complementary projects, increased number of clients, staff recruitment, expansion of services, new markets and products, reinforcement of corporate image, greater productivity, competitiveness and specialization (See Spill-over Effects in the RIS3Andalucia document "Progress Intermediate Evaluation. RIS3 Andalucía. Final Report" pg. 29). 	Andalusia: Reference to the Andalusian System of Indicators elaborated by the Andalusian Institute of Statistic and Cartography, IECA (https://www.ieca.junta- andalucia.es/indris3/index.htm)



Conclusion, Key findings:

- It is difficult to measure the impact of S3. Difficult partly because in most areas it's too early to assess true impact. In addition the impact in general is difficult to assess, distinguishing results from external factors.
- The difficulty arises especially at macro-levels. At lower levels signs are visible, both quantitative and qualitative, which give indications of a positive impact of S3. These indications 'come across' in different ways, from various angles (within areas/sectors, across sectors) and can be measured by various types of indicators.
- The impact of S3 is most visible in more generic, growth/S3 enabling factors, such as: the research climate, innovative attitude of actors, collaborative behavior, skills, new value chains
- In measuring S3 it is not only jobs and growth that count but, quality of life as well
- S3 goes beyond sectors. Much of S3 is about cross-sectorial development, developing new areas of specialization at crossroads of sectors, technologies, actors.



Participants:

- Marika Ikäläinen and Kaarina Mäcklin Lapland, Finland
- Maria Angeles Ruiz Andalusia, Spain
- Sophie Patricio Centro, Portugal
- Dimitrios Kyriakou JRC
- Moderator: Ramojus Reimeris Lithuania
- Rapporteur: Luc Hulsman Northern Netherlands

