# Comparative study on application of Trans-S3 methodology to different sets of regions

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## Introduction

This study has been elaborated to assess the key differences and challenges of application of the Transnational Smart Specialisation Strategy methodology (Trans-S3 methodology)[1] developed and tested by the EU Interreg Baltic Sea Region projects "GoSmart BSR" (in 2019) and "GoSmart&Excel BSR" (in 2021). In 2019, the Trans-S3 was elaborated for a limited number of dispersed regions of the BSR. In 2021, the Trans-S3 was elaborated for all EU regions belonging to the BSR. On the basis of these two applications the Trans-S3 method has been verified and its expanded use by the EU macro-regions initiated.

**In the current study, a comparison has been made of the Trans-S3 process carried out for a limited number of dispersed regions and for the EU Baltic Sea Region, one of the EU macro-regions composed of clustered territories**. An analysis has been conducted of the improvements and further adaptation of the Trans-S3 methodology to the current context with the view of future use by other UE macro-regions. It is also expected that this publication will provide useful guidelines and tips on how to better organise the analytical, forecasting, stakeholder management and governance processes and elements in relation to Trans-S3 development. Valuable lessons learned have been identified and analysed, learning points formulated and recommendations provided. This comparative study makes the Trans-S3 method more comprehensively explained and thus, potentially more useful.

The publication is expected to guide the potential readers and users in an easy and easily-explicable format, constituting a pragmatic toolkit for those considering the application of the Trans-S3 method to their particular situations, especially fitting to other EU macro-regions or other large groupings of regions or countries. The publication should be studied in connection to the earlier publications on the Trans-S3 methodology, referred to in other parts of the text.

On the basis of the Trans-S3 for the BSR documents produced in 2021 (and upcoming) and the primary methodology developed in 2019, this publication (comparative study) constitutes an extended guideline on the application of the Trans-S3 method. In the document, it is explained how transnational smart specialisations can be effectively established, especially in the UE macro-regions. The main strengths of the prepared study are: methodological soundness, analytical depth, and multi-stage and multi-actor validation. Thus, the Trans-S3 has greater chances of becoming a balanced and usable policy tool, which can be utilised by the Regional Innovation Strategy (RIS) key players such as the supranational, national and regional authorities and their partners, who adjust and reshape their approaches to promotion and support of innovation. The format of this Trans-S3 comparative study contains all the necessary elements for its replication by future users, indicatively:

- General methodological notes and justification, including limitations;

- Categories of data source categories and their interpretation/assessment;

- Step by step algorithm for application, including detailed computations;

- Problem solving guidelines;

- Guidance on interpretation of findings.

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[1] https://gosmartbsr.eu/about-project/publications/

Upon the closure of the Trans-S3 elaboration processes for the BSR, the underpinning methodology and tools applied are finalised and will be widely disseminated among other regions, specifically EU macro-regions, and in the European Union, primarily via online portals and communication channels related to S3. Following the finalisation and publication of this Trans-S3 comparative study, further policy recommendations accompanying the Trans-S3 methodology will be made widely available. This publicity can multiply the impacts of the S3 approach and at the same time provide grounds for deeper integration within the BSR and other European (macro)regions.

This study is not intended as a theoretical product. It is worth noting that the Trans-S3 methodology, already published, is a highly practical guideline, based on real project work and lessons learned based on the actual application of the said methodology since 2019. The current study is intended as highly applicable, practical tool to regions interested in developing joint Trans-S3s. The study is also considered a significant extension and addition to the existing Trans-S3 method as it will provide novel perspectives and thus, important value-added elements, specifically:

- Answering the questions how to apply the Trans-S3 methodology in different geographical and socio-economic contexts, specifically on the mezzo (NUTS2/NUTS3) transregional scale and the EU macro-regional scale, and what needs to be considered using different approaches and modified tools;

- Providing further, expanded and adaptive elements, via lessons learned from two applications (in 2019 and in 2021), which have different setting, scale, institutional composition and partnership experiences;

- Wider and more tailored application of the methodology in different geographic settings and scales.

## Methods to develop comparative study

A comparison has been made between the application of Trans-S3 methodology in different settings (the former one in dispersed and clustered regions, the latter one based on the GoSmart&Excel BSR project for the EU BSR macro-region) and it needs to refer to our original methodology (2019). Consequently, the study follows all the originally established Trans-S3 methodological components (specific and general) as well as the steps and elements contained therein:

- **A. 'Specific component – Trans-S3 identification'** – This stands for all the steps, or as they were called within the GoSmart BRS project, sequences, which lead to the selection of smart priorities and domains at the transnational level. The specific component covers the following sequences: 1/Search for common sets (defining initial priorities), 2/Analytical review and profiling target regions (verifying priorities), 3/Markets and technology trends review (refining priorities), 4/Internationalisation potential assessment (assessing priorities), 5/Stakeholders consultations and entrepreneurial discovery (finalising priorities).

- **B. 'General component – Trans-S3 management'** – This stand for the elements which need to accompany the identification of smart specialisation priority areas. At the same time, it is necessary to stress that the Trans-S3 management component is also the one which governs all steps and sequences and regulates the whole strategy. The general component covers the following elements: 1/Governance, 2/Shared vision, 3/Action plan, 4/Monitoring and evaluation.

For each of these steps and elements, a descriptive comparison has been made focusing on the following items:

- Detailed solutions applied in the approaches by projects "GoSmart BSR" (2019) and "GoSmart&Excel BSR" (2021).

- Key differences and challenges (questions 'how to do?', 'which information to collect?', 'whom to involve?', etc.).

- Lessons learned, recommendations and practical tips (lessons and recommendations based on the real-life work carried out for the Trans-S3 under the "GoSmart BSR" and the "GoSmart&Excel BSR" projects, considering, among others, different general settings, scales, institutional compositions and partnership experiences).

## Summary results

The adaptations in the application of Trans-S3 method made between the "GoSmart BSR" project (2017-2020) and  the "GoSmart&Excel BSR" project (2021) confirm the power and universality of the Trans-S3 method. The building blocks of the method remain intact and effective while each one of them can be enhanced by more robust input data and information to provide the maximum value to the Trans-S3 identification and management with every change of the context. As shown during both projects, **the Trans-S3 method can be effectively applied to any configuration of regions or countries.**

The below table provides a summary learning points of the application of the Trans-S3 method to a limited number of dispersed regions and to the EU Baltic Sea Region, one of the EU macro-regions composed of clustered territories.

**Table 1: Key differences, recommendations and practical tips on Trans-S3 for a limited number of dispersed regions and clustered regions (EU macro-regions).**

| Trans-S3 steps and elements | Detailed solutions | | Key differences and challenges | Lessons learned, recommendations and practical tips |
|---|---|---|---|---|
| | Application in limited number of dispersed regions[2] | Application in EU macro-regions (clustered regions)[3] | | |
| **A.  'Specific component – Trans-S3 identification'[4]** | | | | |
| 1/ Search for common sets (defining initial priorities) | Compare existing S3s and identify common priorities (Platform S3 of the European Commission) | Compare existing S3s and identify common priorities (Platform S3 of the European Commission) | - Regions/countries of different size, characteristics and approaches to S3<br>- Different age of S3 documents (some recent, some not)<br>- Different definitions of S3 priorities, not easy to systematise | - Important to develop and consistently apply a translation of policy statements (S3 priorities) to statistical classifications (e.g. NACE)<br>- Treat information as initial only, not determining final results |
| 2/ Analytical review and profiling target regions (verifying priorities) | Analysis using the Location Index (LQ) of employment (Eurostat) | Analysis using the Location Index (LQ) of employment on labour market data (Eurostat) | - Smaller scale regions (e.g. NUTS3 category) may lack basic data<br>- More data, more frequent and more robust data available at macro-levels | - For more robust analysis multiple sets of data can be used (apart from employment), however data limitations need to be considered and interpretation/assessment of data utility is often needed |
| 3/ Markets and technology trends review (refining priorities) | Foresight studies, industry publications (Eurostat, various studies) | Foresight studies, industry publications & new policy development (e.g. EU Green Deal) (Eurostat, various studies) | - Some valuable and more recent studies are not readily available<br>- Translation of policy and analytical statements into coherent classifications is needed | - Greater scale studies, including global ones, can provide important insights |
| 4/ Internationalisation potential assessment (assessing priorities) | SMEs survey (own elaboration) | Integration of quantitative data in the field of internal EU trade and in the sectoral system (Eurostat, other databases) | - Data on international trade of goods and services is limited and not very recent<br>- Data on other sectoral aspects of internationalisation is limited (e.g. | - Small scale research may not be representative statistically while time and resource consuming |

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[2] GoSmart BSR regions: Syddanmark (DK03), Hamburg (DE60), Estonia (EE00), Latvia (LV00), Lithuania (LT00), Podlaskie (PL34), and Etelä-Suomi (FI1C).

[3] The EU Baltic Sea Region.

[4] More information - M. Mesloh, M. Kruse, J. Wedemeier: Technical Report – Smart specialisation and interregional cooperation in the Baltic Sea Region: Regional specialisation, trends, and internationalisation potential, Hamburg Institute of International Economics (HWWI), 2021; Methodology for Transnational Smart Specialisation. Policy paper, 2019.

| Trans-S3 steps and elements | Detailed solutions | | Key differences and challenges | Lessons learned, recommendations and practical tips |
| --- | --- | --- | --- | --- |
| | Application in limited number of dispersed regions[2] | Application in EU macro-regions (clustered regions)[3] | | |
| | | | foreign direct investments) | |
| 5/ Stakeholder's consultations and entrepreneurial discovery (finalising priorities) | Regional or national workshops (Stakeholders, Partner involvement) | Regional or national workshops (Stakeholders, Partner involvement) | - Limited understanding of the need for sharing smart specialisations with other regions and countries<br>- Reaching key stakeholders is challenging if not working through regional or national partners | - Consultations need to be based on concrete proposals<br>- Consultations need to have balanced representation od all types of partners (quadruple helix) |
| **B.        'General component – Trans-S3 management'** | | | | |
| 1/ Governance | Project focused and limited by project | Can be integrated into broader governance models already developed by regional grouping | - Project-based governance is relatively easy but less representative of the broader policy environments | - It is advisable to anchor Trans-S3 management directly to an established governance system (e.g. interregional body) or at least involve key policy-makers |
| 2/ Shared vision | Easily conceived | Requires more formal process and formal adoption | - Always requires recognition of various perspectives and interests | - Preparatory work should include partners' introduction, ideas sharing, etc. |
| 3/ Action plan | Project defined and difficult to follow beyond project lifetime | Can span over medium or long term, depending on governance models adopted | - Impactful action plans require resources, pre-defined responsibilities and collaboration | - Modest but concrete action plans work better<br>- Resources must be planned |
| 4/ Monitoring and evaluation | Project defined and difficult to follow beyond project lifetime | Can span over medium or long term, depending on governance models adopted | - M&E under a project is easier to set up but harder to maintain<br>- M&E under a formal set-up can be easily integrated within established overall governance system | - Simple M&E solutions are best in initial Trans-S3 stages<br>- Resources and responsibilities for M&E must be secured |

Source:  Own elaboration.

## Trans-S3 methodology and its different applications explained

The "GoSmart BSR" project (2017-2020) was focused on collaboration between selected less innovative and less developed regions of the Baltic Sea Region with more advanced regions under the S3 approach. The involved regions represented parts of or whole territories of: Denmark, Estonia, Finland, Germany, Latvia, Lithuania,  and Poland. These entities were not fully connected in terms of their physical territories. Under the "GoSmart BSR" project, the smart specialisation approach was expressed by a joint development of special regional positions of strength and opportunity in the selected regions around the Baltic Sea (though the development and application of the Trans-S3 method). The main components and results of the project included:

- The development of a **Methodology for Transnational Smart Specialisation Strategy (Trans-S3 methodology)**. The methodology includes a detailed study of the initial situation in partner regions in the field of smart specialisation, identifying common priority areas for their further development, creating a joint plan for strengthening agreed, shared interregional smart specialisations.

- Establishing and developing a functioning and sustainable **Transnational Innovation Brokerage System (TIBS)** by recruiting and training international innovation brokers, who work to link the innovation needs of enterprises, specifically Small and Medium-sized Enterprises (SMEs), to international research institutes and other relevant innovation actors, exploiting cooperation opportunities and promoting innovation-driven internationalisation.

The "GoSmart&Excel BSR" project (2021) was an extension of the regular "GoSmart BSR" project. The "GoSmart&Excel BSR" aimed to identify the joint strategic innovation fields with internationalisation potential in the whole EU Baltic Sea Region and to improve access of SMEs to international markets. This project was fully integrated within the S3 approach and focused on enhancing the capacity of innovation actors in the BSR and beyond to practically and jointly apply the S3 approach. Consequently, within the project, the relatively low capacity for innovation in less developed BSR countries and regions was augmented by: mutual learning, translating S3 into practical SMEs joint actions, and employing best practices from more developed regions. Particularly, the project came in support to the southern and eastern parts of the BSR, focused on four regions: Podlaskie (PL), Kaunas (LT), Vidzeme (LV) and South-Estonia (ES). Conversely, the regions: Syddanmark (DK), Hamburg (DE), Kymenlaakso, West Finland (FI), West Sweden (SE), were covered by the project as quite advanced in R&D, innovation, innovation-driven and internationalisation-oriented business models. At the same time, it was recognised that both categories of regions as well as other areas of the Baltic Sea Region and beyond could benefit from more intensive economic collaboration, joint research and commercialisation of R&D&I activities.

The goals of the "GoSmart&Excel BSR" project were to further improve the Trans-S3 methodology and elaborate a Trans-S3 document for the whole BSR while enhancing the TIBS services and expanding its network. The number of partners and target regions increased between the original (regular) and the extension projects. The below table presents the partners and target regions of the "GoSmart BSR" and "GoSmart&Excel BSR" projects.

**Table 2: Project partners and target regions of Trans-S3 methodology in earlier and more recent application**

| Item | Application in limited number of dispersed regions | Application in EU macro-regions (clustered regions) | Key differences and challenges |
|---|---|---|---|
| Project partners | 1. Bialystok University of Technology (PL) – Lead Partner<br>2. Podlaska Regional Development Foundation (PL)<br>3. Vidzeme Planning Region (LV)<br>4. Valga Municipality Government (ES)<br>5. Lithuania Innovation Centre (LT)<br>6. Kouvola Innovation Ltd (FI)<br>7. Hamburg Institute of International Economics (DE)<br>8. Business Aabenraa (Dania) | 1. Bialystok University of Technology (PL) – Lead Partner<br>2. Podlaska Regional Development Foundation (PL)<br>3. Vidzeme Planning Region (LV)<br>4. Valga Municipality Government (ES)<br>5. Lithuania Innovation Centre (LT)<br>6. Kouvola Innovation Ltd (FI)<br>7. Hamburg Institute of International Economics (DE)<br>8. Baltic Institute of Finland (FI)<br>9. RISE Sweden (SE)<br>10. North Denmark EU Office (DK) | - Increased number of involved partners.<br>- Increased number of involved countries.<br>- Engaged different regions from Denmark. |
| Target regions | 1. Podlaskie (Poland – PL34)<br>2. Vidzeme, (Latvija LV008)<br>3. South Estonia (Estonia, EE008)<br>4. Lietuva (Lithuania, LT01)<br>5. Kymenlaakso (Finland, FI1C4)<br>6. Hamburg (Germany, DE60)<br>7. Syddanmark (Denmark, DK03) | 1. Podlaskie (Poland, PL34 / PL84)<br>2. Latvija (Latvia, LV00)<br>3. Estonia (EE00)<br>4. Lietuva (Lithuania, LT01 & LT02)<br>5. Etelä-Suomi (Finland, FI18 / FI1C)<br>6. Hamburg (Germany, DE60)<br>7. Länsi-Suomi (Finland, FI19)<br>8. Stockholm (Sweden, SE01)<br>9. Nordjylland (Denmark, DK05) | - Expanded area of targeted regions covering administrative or planning regions (or whole countries) from all EU member countries of the BSR.<br>- More clustered, i.e. more geographically connected covered territories (with a similar level of imperfections remaining). |

Source: Own elaboration.

The Trans-S3 methodology, while unchanged, was differently applied in 2019 and 2021 in terms of the context, initially related to a selected number of more dispersed regions and more recently, to the whole EU BSR set of regions. The below table presents a comparison of the main assumptions, research methods and data used for the definition of dimensions of the macro-regional specialisations.

**Table 3: Main assumptions, purposes and contexts of Trans-S3 methodology in earlier and more recent application**

| Item | Description | |
|---|---|---|
| | Application in limited number of dispersed regions | Application in EU macro-regions (clustered regions) |
| Main objective | to identify Trans-S3 priorities and domains for groups of transnational regions | to reset priority areas and (knowledge and economic) domains in an exemplary clustered set of regions, that is the BSR, one of the EU macro-regions |
| Main purposes | - to build global competitiveness of a group of regions based on their shared strengths and opportunities<br>- to become more engaged in global value networks<br>- to establish, test and roll out a functioning and sustainable Transnational Innovation Brokerage System (TIBS) in support of innovating SMEs and their groups across regions/countries<br>- to initiate smart strategies at micro level, so that business sector improves knowledge and competences in managing innovations and innovation-based internationalisation | - to develop a joint Transnational Research and Innovation Strategy for Smart Specialisation (Trans-S3) for the Baltic Sea Region (EU macro-region) focusing on interregional cooperation and innovation<br>- to enhance growth opportunities based on increased capacity of innovation actors to apply smart specialisation approach and capacity for innovation<br>- to obtain targeted priorities for public funding of innovation activities in the involved region, that is the EU BSR |
| A. 'Specific component – Trans-S3 identification' | 1. Search for common set of priorities<br>2. Analytical review of priorities<br>3. Consideration of market and technology trends<br>4. Identify internationalisation potential of priorities<br>5. Stakeholder consultations<br><br>*Based on limited data available for dispersed and different-size/category regions* | 1. Search for common set of priorities<br>2. Analytical review of priorities<br>3. Consideration of market and technology trends<br>4. Identify internationalisation potential of priorities<br>5. Stakeholder consultations<br><br>*Based on more robust statistical data available for comparable size and same category regions* |
| B. 'General component – Trans-S3 management' | 1. Governance<br>2. Shared vision<br>3. Action plan<br>4. Monitoring and evaluation<br><br>*Project-defined* | 1. Governance<br>2. Shared vision<br>3. Action plan<br>4. Monitoring and evaluation<br><br>*To be integrated into the established governance framework for the EUSBSR (Policy Area: Innovation)* |
| Data collection and methods of identification smart specialisation | - S3 Platform<br>- Eurostat<br>- foresight studies<br>- industry publications<br>- SME survey on internationalisation | - S3 Platform<br>- Eurostat<br>- foresight studies<br>- industry publications<br>- new policy development documents |

| Item | Description | |
|---|---|---|
| | **Application in limited number of dispersed regions** | **Application in EU macro-regions (clustered regions)** |
| | - regional workshops involving representation of quadruple helix environments | (e.g. Green Deal)<br>- quantitative data on international trade from Eurostat<br>- regional workshops involving representation of quadruple helix environments |
| Use of results | - Immediate - in target regions for project implementation purposes, specifically to define prioritised clusters from which SMEs receive TIBS services<br>- Wider - in any group of regions interested to develop and manage a joint Trans-S3 | - Immediate – in the whole BSR to support innovation policy and related instruments, including TIBS and similar initiatives<br>- Wider – in any group of regions, specifically in other EU macro-regions interested to develop and manage their own Trans-S3 |

Source: Own elaboration.

The outcome of the extension project "GoSmart&Excel BSR" (2021) was to develop a Transnational S3 document for the whole BSR: "Trans-S3 methodology for the BSR to be adopted and used by all BSR innovation actors to prioritise common action, also to inspire other EU macro-regions in working out their own S3s"[5].

The main objective of the application of the Trans-S3 method in EU macro-regions (clustered regions) was to reset the priority areas and (knowledge and economic) domains in an exemplary set of formally collaborating regions within the EU BSR. The Trans-S3 for the BSR was developed primarily by:

- Comparison of existing national and regional S3s, and identification of potential common priorities;

- Analysis using the Location Quotient on labour market data;

- Foresight studies, industry publications and new policy development documents (e.g. the EU Green Deal);

- Integration of quantitative data on international trade to ensure (greater) replicability of the Trans-S3 methodology.

## Comparison of different applications of Trans-S3

The main differences in the application of Trans-S3 method for a limited number of dispersed regions (2019) and for a more clustered grouping of regions (the EU Baltic Sea Region, 2021) are:

- **Usage of more robust statistical data for analytical review of potential common Trans-S3 priorities**. Some market data (on employment, enterprises, etc.) is only produced at macro-economic levels (e.g. EU NUTS2-category regions) and either unavailable or less reliable at micro levels (EU NUTS3-category regions).

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[5] Extension – GoSmart&Excel BSR, https://gosmartbsr.eu/gosmartexcel-bsr/

- **Usage of greater number of analytical and policy-related publications on technology and market trends**. The application of Trans-S3 method benefits from moving to macro-levels as more and more advanced analyses are available at national and international levels compared to sub-national levels. Similarly, policy documents reflecting major technology and marker developments are usually more advanced at macro-levels.

- **Usage of quantitative data (instead of or together with qualitative data) for identification of internationalisation potential of common Trans-S3 priorities**. While for dispersed and different regions it was only possible and appropriate to use an SMEs survey on internationalisation potential, for the whole BSR it was possible to analyse quantitative data from Eurostat and other databases on internal EU trade flows between countries and in sectoral dimensions.

- **Usage of established and more permanent governance systems rather than project-based governance arrangements**. While project partners representing dispersed regions (or countries) are able to develop and maintain effective governance systems for their Trans-S3, these systems are normally unrelated to the broader policy and decision-making bodies and environments, and thus more fragmented, less easily implementable, limited to the project's scope and lifetime, and overall, less sustainable. In the context of established international collaboration mechanisms such as the EU macro-regions, the Trans-S3 benefits from governance agreements and solutions which are more formalised and institutionalised, and thus more sustainable. The benefits of relying on established governance systems for Trans-S3 are found in all Trans-S3 management aspects: Governance, Shared vision, Action plan, Monitoring and evaluation.

Importantly, the "GoSmart&Excel BSR" project partners have shared their perspectives and lessons learned in relation to the application of the Trans-S3 method for a limited number of dispersed regions and for the whole Baltic Sea Region. These observations and lessons serve as a further guidance to new users of the Trans-S3 methodology, whether on a smaller, mezzo-regional or larger, macro-regional scale. Below, the key questions and the most significant answers and observations are presented:

**Question 1:**

**What are the potential benefits for individual regions/countries of the Trans-S3 for the whole Baltic Sea Region (an EU macro-region) compared to the Trans-S3 for a limited number of regions/countries (not a macro-region)?**

**Answers:**

Each country and region is characterised by specific assets and potentials which make it uniquely predisposed to successfully compete in some selected areas. Specialisation should of course be supported in those areas which are the strongest and/or can most effectively benefit from favourable trends, i.e. in those sectors, sub-sectors and knowledge/economic/market niches where the competitive positions can be maintained and gained for long. In the current context of accelerating technologic and organisational transformations, long-term competitive positions are increasingly depended on and conditioned by innovation. Being innovative, being highly adaptive

are important elements of regional and national competitiveness. Smart specialisation strategies (S3) have been the major component of the European Union's 2020 flagship 'Innovation Union' programme (also known as RIS3). Smart specialisation is now a key feature of contemporary regional innovation policies in Europe. 'Smart Specialisation' largely denotes the European Union's current approach to regional innovation policy[6]. „In doing so, the smart specialisation concept stresses the importance of an 'entrepreneurial discovery process' both to identify those areas, or domains, where a region may find a competitive advantage and as a means to generate innovative activities"[7]. Decisions related to smart specialisation areas are thus not taken in a top-down manner but rather worked out through a dynamic and engaging process of consultation and collaboration among all key stakeholders[8]. By concentrating resources and efforts on the most promising priority areas and concrete domains of knowledge and economy, and focusing on innovations within these areas, the possibility of gaining and maintaining (global) competitive positions is greatly increased.

Smart specialisation concept foresees increasing innovativeness and competitiveness based on the endogenic potentials of regions in sectors already present in these regions[9]. The identification of smart specialisations is dynamic and stimulates economic growth and modernisation in the direction of greater competitive advantages based on the development of those priority areas which represent the best prospects and where stakeholders are willing to get engaged and concentrate their joint efforts. Smart specialisations should involve and integrate actions by individual market participants such as SMEs and their innovation partners which will build in a bottom-up fashion regional and interregional innovativeness and competitiveness. The Transnational Innovation Brokerage System (TIBS) which underpins the Trans-S3 is expected to be more effective when it expands to the whole BSR territory and even more effective when it prioritises client SMEs from the Trans-S3 priority areas and domains which are relevant to the whole BSR rather than a limited selection of participating regions and countries.

Together with an increased scale the Trans-S3 for the whole BSR also allows to capture more recent changes in all participating regions, also those caused by the COVID-19 pandemic, including various restrictions and more demanding hygiene and security regulations on social and economic activities. International trade and other forms of cooperation have suffered, at least temporarily. Instability and insecurity have greatly increased, impacting the direction and tempo of globalization.

According to Valga Municipality Government (EE), the Baltic Sea Region, as also defined by the EU Commission, is a: „highly heterogeneous area in economic, environmental and cultural terms, yet the countries concerned share many common resources and demonstrate considerable interdependence" [10]. This means that actions in one area can have consequences for other parts very quickly, or the whole of the region. The BSR could be a model of regional cooperation where new ideas and approaches can be tested and developed over time as best practice examples. It is evident is that within the BSR there are different interdependent countries with different markets. Better coordination throughout the whole region would help link countries of less innovative

[6] C. Gianelle, F. Guzzo & K. Mieszkowski (2019): Smart Specialisation: what gets lost in translation from concept to practice?, Regional Studies, DOI: 10.1080/00343404.2019.1607970

[7] M. Trippl, E. Zukauskaite & A. Healy (2019): Shaping smart specialisation: the role of place-specific factors in advanced, intermediate and less-developed European regions, Regional Studies, DOI: 10.1080/00343404.2019.1582763.

[8] A. Oleksiuk (2015), Inteligentne specjalizacje a budowa innowacyjnych regionów w warunkach europejskich [Smart specialisations and building of innovative regions in European context], s. 9.

[9] A. Oleksiuk (2015), Inteligentne specjalizacje a budowa innowacyjnych regionów w warunkach europejskich [Smart specialisations and building of innovative regions in European context], s. 15.

[10] European Commission (2009): COMMUNICATION concerning the European Union Strategy for the Baltic Sea Region, https://ec.europa.eu/regional_policy/en/information/publications/communications/2009/communication-concerning-the-european-union-strategy-for-the-baltic-sea-region

potential to highly developed countries and further the development and best use of the overall resources of the whole region. More effective cooperation between industries and organisations will allow innovation with international partners and provide more and better products with high added value. Besides innovation with international partners and within the whole BSR region there is a greater potential for internationalisation of businesses. This does not only include businesses but clearly reaches institutional and policy governance levels. This overall supports opportunities for joint agendas, future cooperation and strengthening overall macro-regional competitiveness. By allowing access to know-how distribution, technology transfers, sourcing and other kinds of cooperation, specifically in R&D, the BSR-wide approach better supports integration and market power of the BSR and its participants. Limited number of regions and countries would not fully use the available regional potential and cooperation.

The development and adoption of the Trans-S3 for a limited number of regions and countries was a good starting point for better understanding of interregional linkages and opportunities as well as advancing knowledge on smart specialisation among the project partner regions under the "GoSmart BSR" project (2017-2020). The "GoSmart&Excel BSR" project (2021) was an effective means of working on a common Trans-S3 for the whole BSR, specifically by:

- using advanced knowledge and new data and information on each participating region/country;

- building on experiences from the development of the earlier Trans-S3 for a limited number of dispersed regions as well as better understanding of actual microeconomic innovations as the expressions of Trans-S3 priority areas and domains on the ground in the form of SMEs' Joint Transnational Smart Strategies (JTSSs);

The Trans-S3 for the whole Baltic Sea Region is more ambitious and at the same time more beneficial than the Trans-S3 for a limited number of dispersed regions also because:

- "It is more logical from governance aspects. If macro-region has a strategy (such as the EUSBSR), then also identifying core areas, domains, is a good step forward to understand where to put most efforts when it comes to implementing the strategy, in which sectors" (Vidzeme Planning Region, LV).

- It allows greater scale and spectrum of interregional collaboration of economic and scientific partners for and within the identified priority areas and domains which are common to each participating country and region.

- It allows pulling more resources for collaboration in selected priority areas and domains on macro-scale which is closer to global scale rather than mezzo-scale.

- "For companies, researchers and other stakeholders it supports understanding the "market needs of the whole BSR, and that could promote development of innovation within those core sectors. If companies and researchers know what is needed, they also are more willing to risk and try out innovation" (Vidzeme Planning Region, LV).

- "It presents an opportunity for participating countries and regions and their economic and scientific actors, specifically SMEs, to align their smart specialisations with those shared within the BSR, gaining from greater scale cooperation and coordination" (Bialystok University of Technology, PL).

- "For individual regions and countries such a Trans-S3 for whole BSR can give opportunity to provide and promote their services and products, knowledge, infrastructure, etc., that can

be valuable for the development of those sectors. In that way also individual regions know their value and can bring that on a plate for other interested parties across BSR. It is important also for governance of those local regions – to understand whether they go along with what's important for macro-region, what's on macro-regional agenda" (Vidzeme Planning Region, LV).

- "Trans-S3 for the whole BSR can support policy-makers in the EU or at EU macro-regional levels to formulate and implement other strategic decisions and documents, thus enhancing European innovation and competitiveness systems" (Bialystok University of Technology, PL).

- "Defining smart specialisations common for the whole BSR can bring new opportunities to all regions but under the condition that elaborated document is accepted and brought into life in the regions like e.g. RIS 3 strategies. While taken into consideration in regional strategies it can enable focus on joint initiatives in the field of regional challenges of the new perspective. Trans-S3 thus can join businesses, authorities and R&D in a wider area. This, in perspective, is the opportunity for innovation development and competitiveness increase of the Baltic Sea Region" (Podlaska Regional Development Foundation, PL).

**Question 2:**

**What important differences in elaboration and implementation of the Trans-S3 for the whole Baltic Sea Region (an EU macro-region) compared to the Trans-S3 for a limited number of regions/countries (not a macro-region) do you see from the perspective of your region/country?**

**Answers:**

In general, individual regions and countries participating in both applications of the Trans-S3 method found the second application related to the whole BSR more robust and beneficial both due to the larger scale and the increased possibility of transferring the results to their national and regional realities. Some of the mentioned benefits are also related to the progress of learning about the practical application of the Trans-S3 method.

The "GoSmart&Excel BSR" project partners have given some more specific feedback:

- "For the region of Podlaskie including the whole Baltic Sea Region in the Trans-S3 gives more opportunities for strategical activities. Benchmarking potential as well as joint data gathered from the perspective of the region can be practically utilised by stakeholders and regional authorities engaged in the process" (Podlaska Regional Development Foundation, PL).

- "Data availability and comparability: in Estonia we only have S3 methodology for one concrete region - South-Estonia. The Trans-S3 is more comprehensive than the Estonian S3 strategy. Stakeholders and relations among them - unfortunately many Estonian stakeholders do not fully understand what the S3 means in practice. Governance aspects of Trans-S3 - it seems that the EU politicians understand better what Trans-S3 is than local politicians. Within the region it is possible to better provide for comparison of markets and innovation & efficiency of the use of resources. This enables the development of the region and brings out differences which can be mitigated. As the region is similar and interdependent on partners it is possible to compare data and make necessary adaptations. For stakeholder relations and stakeholders, the BSR represents a relevant political and economic reality which clearly supports cooperation. Also, the participant businesses and

organisations have the same aim of improving the regional level and competence because it allows them to develop on multiple scales" (Valga Municipality Government, EE).

- "Elaborating Trans-S3 for limited number of regions in 2018-2019 seemed a good way how to start and "pilot" such methods, as identifying core domains for such a large territory, is quite challenging. At that time – one of the aims was to develop supporting mechanism within those core domains, so it seemed reasonable to limit the number of analysed, engaged regions, countries. So, for the project purpose it was ok and well done. Now, when we are working to prepare a proposal for the whole macro-region, the only possible scenario is to consider whole macro-region, engage all territories. So that is the biggest difference – if we work among project partners to develop something, test, pilot, understand, limited territory is ok, but if we aim to propose such an important "innovation" for macro-regional governance, then whole BSR should be considered, and look from this big, governing perspective, not at piloting-testing anymore. Specifically, from the VPR side, also communication with stakeholders is organized accordingly. Also, people that we engaged in stakeholder consultations were covering also national level, so they can give feedback on overall situation, story is not only about the Vidzeme region anymore. On the scale of the BSR, Vidzeme region doesn't compete with other regions in Latvia, but cooperates to put on a plate the offering of Latvia. During the previous approach, it was mostly about the Vidzeme region only, as we had to find communities among project partners, not all countries" (Vidzeme Planning Region, LV).


**Question 3:**

**Share other potentially replicable practical tips learned from GoSmart BSR and GoSmart&Excel BSR refereed to Trans-S3 elaboration, implementation and key stakeholders' engagement.**


**Answers:**

Trans-S3 has been perceived as a valuable learning experience, which helps put individual national and regional S3s into a broader and common perspective. By working on the Trans-S3 for the whole BSR, the participating regions and countries could question and validate their earlier choices related to the selected smart specialisation areas and engage stakeholders further by inviting them to discussions on what could be the accepted common areas with other partners from the BSR. In practical terms, the Trans-S3 process has also enhanced efforts in finding more international partners for innovation and internationalisation, including the efforts by SMEs to build their competitiveness by innovation-driven internationalisation with foreign partners.

Some specific answers are presented below:

- "Practical use of Trans-S3 where PRDF took part was implementation of smart specialisation into the TIBS system which is designed to be replicable" (Podlaska Regional Development Foundation, PL).

- "Currently identified S3 priorities/directions/domains cover quite a lot from our regional and national S3, so we see that we are in the right track. Methodology and those sequences from methodology can be used not only to identify common S3 domains but also to come up with priorities for many other strategic decisions that engage stakeholders or many regions. For example, if joint priorities must be found for a network of regions, then it can be applied

(modified) to the process how to identify those priorities. Stakeholders see the need for joint identification of macro-regional S3, because it gives a hope that oriented investments could be made to strengthen those sectors and to strengthen the collaboration among stakeholders operating in those domains – to develop innovation, to network, to meet each other, etc." (Vidzeme Planning Region, LV).

- "It is important to organise events for entrepreneurs and other stakeholders to explain to them in simple language what smart specialisation means. It is very valuable to ask for their feedback. SME-s are happy that there is an innovation broker who helps them and tries to find potential cooperation partners from abroad. GoSmart helped to make other international regions more aware of the possibilities of the South-Estonian business environment and increased the attractiveness of Valga County and made it us more noticeable to various ministries   (Valga Municipality Government, EE).