



# Study to Prepare a Synchronised Funding Scheme for Bioeconomy Development in the Alpine Region

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## LIST OF ACRONYMS

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AG	Action Group
AlpGov	Interreg project that aims to support effective and efficient EUSALP implementation
BSR	Baltic Sea Region
COSME	Competitiveness of Enterprises and Small and Medium-sized Enterprises
EDW	Entrepreneurial Discovery Workshop
ERA	European Research Area
ERDF	European Regional Development Fund
ESIF	European Structural and Investment Funds
EUSALP	EU-Strategy for the Alpine Region
INTERREG	European Territorial Cooperation
LGCA	Lombardy Green Chemistry Association
PA	Priority Area
R&D	Research and Development
RDI	Research, Development and Innovation
S3	Smart Specialisation Strategy
SDG	Sustainable Development Goals
SME	Small and Medium-sized Enterprise
VC	Value Chain



## KEY CONCEPTS AND DEFINITIONS

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For purposes of this report, the key concepts and definitions are understood as follows:

**EUSALP:** EUSALP is the Alpine macro-regional strategy that provides an opportunity to improve cooperation within the Alpine region. It has identified common goals and approaches for implementing them more effectively through transnational collaboration. EUSALP constitutes a strategic agenda that should guide relevant policy instruments at the EU, national and regional level by closely aligning and mutually reinforcing them<sup>1</sup>.

**ERA-NET:** The key objective of the ERA-NET scheme is to develop and strengthen the transnational R&D cooperation between participating countries through a called “Joint Calls”.

**Joint Call:** A Joint Call is a result of a structured and strategic process whereby participating regions agree, on a voluntary basis and in a partnership approach, on common visions or objectives, to jointly address existing challenges. Although a Joint Call is based on existing programmes, joint selection decisions and joint funding are characteristic, in accordance with joint standard rules and procedures, is characteristic. Funding is crossing borders.

**Synchronized Call:** A Synchronised Call implies “synchronization” of existing programmes by opening and closing related Calls at the same time in various regions. Joint funding decisions are made at the same time by all partners, but according to regional / national programme requirements. A Synchronized Call is easier to implement than a Joint Call, but with lower impact on long-term cross-regional cooperation. Funding is not crossing border, although partner work cross-border, since each region only finances its beneficiaries.

**Programmes** are vehicles to implement a policy, e. g. a funding programme for R&D. In addition to programmes, policies are also implemented through regulation (= regulatory framework, e. g. law on consumer protection).

**Smart Specialization Strategies (S3):** Smart Specialization is a strategic approach to economic development through targeted support for research and innovation. It involves a process of developing a vision, identifying the place-based areas of greatest strategic potential, developing multi-stakeholder governance mechanisms, setting strategic priorities and using smart policies to maximise the knowledge-based development potential of a region, regardless of whether it is strong or weak<sup>2</sup>.

**Transformative Activities:** Transformative Activities are a number of innovation-related activities undertaken by a group of actors targeting the same (technical, market or industrial) area and having the potential to significantly transform existing industries<sup>3</sup>. Transformative Activities are positioned on a mid-grained level of granularity that is situated between the micro level of individual units and the macro level of sectors and industries.

**Priority Areas** are the locus for resource concentration and prioritization within S3. They should include the activities that are likely to effectively transform the existing economic structures through R&D and innovation.

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<sup>1</sup> <https://www.alpine-region.eu/>, last access: 29 November 2018

<sup>2</sup> Foray, D. (2015). *Smart Specialization, Opportunities and Challenges for Regional Innovation Policy*, Routledge.

<sup>3</sup> Meier zu Köcker, g.; Keller, M.; Dermastia, M. and Bersier, J. (2018) Cluster Action Plan Transformative Activities for Regional Development, <https://www.alpine-space.eu/projects/s3-4alpcclusters/project-results/wp-results/s3-3alpcclusters-cap.pdf>, last access: 16 January 2019

## 1. INTRODUCTION

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The present Report was produced within the framework of the AlpGov project, by the Sub-Group “Cluster & Bioeconomy.” The report provides an overview of the extent on which the Alpine Space regions have defined the Bioeconomy as a priority in their Smart Specializations Strategies and have defined entry points for transnational cooperation. The report serves as an input for the preparation of a proposed synchronized call (Bioeconomy Master Plan) to strengthening the Bioeconomy along the transnational value chains.

Recent projects including S3-4AlpClusters, CirculAlp, and TRANSALP have confirmed that there is a vast potential for the development of the Alpine Region through transnational cooperation in the Bioeconomy field. These projects have proved that cross-sectoral linkages and cross-border synergies are serving to close gaps along bio-based value chains and are creating a certain critical mass of activities in the region. The Circulalp (forestry/wood) and TRANSALP (Phytopharma) went deeper into selected areas of the Bioeconomy and contributed to a better understanding of how cross-regional Value Chains are designed and what their current key constraints are. The S3-4AlpClusters project argues that transformative activities are playing a critical role in the creation of critical mass<sup>4</sup>. This confirmed the findings of the Poly4EmI project (funded under COSME) which argued that many more interactions are required for the creation of critical mass<sup>5</sup>. It also highlighted the role of networks to enable transformative activities that lead to the emergence of new value chains, related industries and ultimately to the creation of jobs in innovative bio-related areas. Projects from the Danube macro region such as DanuBioValNet points in the direction that cross regional bio-based value chains at the macro regional level can play a critical role in achieving European sustainability and Bioeconomy goals for 2030<sup>6</sup> and that cross regional approaches impact cohesion, environmental and social-economic sustainability. Though, experiences of both macro regions, Alpine Space and Danube, show that mechanisms to promote cross-regional cooperation and exploit synergies within macro regions in the area of Bioeconomy still be established and that novelty models of policy and governance can play a critical role.

Experiences of both macro regions, Alpine Space and Danube, show that mechanisms to promote cross-regional cooperation and exploit synergies within macro regions must still be established. It is a call for novel regional collaboration models to trigger transformation of existing value chains and formation of new value chains and value-added networks. The above described situation leads to the following questions which guided the work of the Sub-Group:

- Are Bioeconomy and related Transformative Activities properly addressed by the Smart Specialization Strategies (S3) in the Alpine Region?

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4 Keller, M.; Reingruber, I.; Dermastia, M.; Bersier, J.; Meier zu Köcker, G. (2018) Smart Specialization Strategies (S3) and Clusters – An Innovation Model for Transformative Activities, Working Paper, DOI: 10.13140/RG.2.2.14017.81761

5 POLY4EMI, Good practice guide on cluster policy excellence for structural change in emerging industries, 2016

6 Dermastia, M.; Osvald, D.; Patzelt, D. (2018): Towards a Systematic Bio-based Industry Approach for the Danube Region, Working paper, [http://www.interreg-danube.eu/uploads/media/approved\\_project\\_output/0001/25/32c3b38506521642ab4467bbf3453c16db164c50.pdf](http://www.interreg-danube.eu/uploads/media/approved_project_output/0001/25/32c3b38506521642ab4467bbf3453c16db164c50.pdf), last access: 24 January 2019

- What are the related regional strategies and implementation modalities in the Alpine Region<sup>7</sup> to support Research, Development and Innovation in field of Bioeconomy?
- Is there a multi-regional, cross-regional governance system in place that encourages and facilitates cross-regional cooperation for R&D&I to turn transformative activities into emerging industries and new markets?

The study addresses challenges of launching a Synchronized Scheme in three fundamentals ways (i) by improving knowledge of current status of Bioeconomy strategies in the EUSALP regions and modalities of Cross-border Collaborations, (ii) by elaborating scenarios on modalities of cross-regional collaboration, and (iii) by developing practical recommendations for development of a Synchronized call to improve the bio-based environment at the micro region for strengthening the Bioeconomy along the transnational value chains.

The analysis was done based on publicly available studies and data; mainly the S3 and accompanying documents. Furthermore, the members of the Sub-Group “Clusters & Bioeconomy” contributed by providing expert opinions. The draft findings were also discussed during the meeting on 23 October 2018 in Salzburg. As far as the Swiss cantons / Regional Innovation Systems are concerned, many RIS (Regional Innovation Strategies) are under development and not yet published. This made the analysis more complicated since related information is difficult to get. However, Swiss representatives from the Sub-Group supported these analyses.

Findings are presented in following sections. Different sources and methods used for this study include (i) a review of selected Smart Specialization Strategies, (ii) meetings with Subgroup “Cluster & Bioeconomy” members, (iii) review of selected examples of macro regional synchronized calls, and (iv) a workshop with the Subgroup “Clusters & Bioeconomy” members. Also, lessons learned and results from related projects were discussed with Bioeconomy and cluster experts.

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<sup>7</sup> The study focused on the entire EUSALP Region

## 2. CONTEXT, OBJECTIVES AND METHODOLOGY

The main objective of this study is to contribute to a better understanding to what extent the Alpine Regions defined Priority Areas related to Bioeconomy in the frame of their S3. So far there is no sufficient knowledge how many Alpine Regions focus on Bioeconomy (or sub-sectors) as priority area within their S3 or to what extent Alpine Regions have dedicated strategies in place to support Bioeconomy, which also included dedicated support schemes (e. f. funding programmes).

**The study puts the S3 of the EUSALP regions (as most promising approach for regional innovation strategies, policies and funding programmes) in the context of Bioeconomy (one of the potential key driver for innovation and competitiveness) and cross-regional governance for innovation (to gain critical mass to boost innovation and cope with macro-regional challenges).**

Along those lines, the current study goes beyond the existing knowledge and analyses the S3 of all EUSALP regions. This input is needed for further considerations related to the idea of a Masterplan Bioeconomy for the Alpine Region, which might contain a multi-regional governance structure to facilitate border-less cooperation through public and private investment. EUSALP includes 7 Countries, of which 5 EU Member States (Austria, France, Germany, Italy and Slovenia). It also includes non-EU countries (Liechtenstein and Switzerland) for a total of 48 Regions<sup>8</sup>. As illustrated in Fig. 1, EUSALP covers more regions than the Alpine Conventions or the Alpine Space. Whereas most of the EUSALP regions of Austria, Germany (Baden-Württemberg, France and Italy) have defined their own S3, the situation in Switzerland is different.

*Figure 1: Regions belonging to EUSALP and targeted within the study*



Source: <http://valtellinanews.it/articoli/aree-interne-in-arrivo-finanziamenti-per-aziende-della-valchiavenna-20170113/>

*Figure 2: The 6 Regional Innovation Systems of Switzerland*



Source: State Secretariat for Economic Affairs, Switzerland

By means of the New Regional Policy, the Federal Government of Switzerland and the cantons support regions with their efforts to develop their regional economies. One of the five support objectives is the promotion of innovation and transfer of knowledge. Since, in occasional cases, Swiss cantons have developed a kind of regional innovation strategy, the study took a deeper look in the regional strategies of the six recently defined Regional Innovation Systems in Switzerland. These

<sup>8</sup> <https://www.alpine-region.eu/7-countries-and-48-regions>, last access: 26 November 2018



cover all 26 cantons (s. Fig. 2). The Regional Innovation Systems relate to functional economic zones in which the key drivers of innovation cooperate with one another in a network.

## THE S3 FRAMEWORK

In recent years, the Smart Specialization Strategy (S3) concept has gained increasing importance<sup>9</sup>. One of the rationales for this trend is the emergence of new industries and increasing technological convergence which leads to the continuous reshaping of the business environment as well as to calls for new business models, novel strategies, and creative policy approaches. The smart specialization concept serves as a conceptual framework for issues of policy prioritization logic in innovation policy. The idea behind is that regions cannot do everything in science, technology and innovation, and they need to promote what should make their knowledge base unique and superior. Also, in the time of increasingly tight budgets, regions need to prioritize their spending on innovation efforts in order to remain competitive. Smart specialization therefore implies that countries and regions should focus on and specialize in relevant sectors or activities, depending on their capabilities.

S3 plays an important role in European regional development and innovation policy<sup>10</sup>. Article 2(3) of the Common Provisions Regulation for the European Structural and Investment Funds defines S3 as intended “to build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market developments in a coherent manner.” As a practical matter, S3 are of fundamental importance for the thematic objective of “strengthening research, technological development and innovation” within the common strategic framework of the European structural and investment funds (ESI Funds). As an ex ante conditionality for funds of the European Regional Development Fund (ERDF) in the 2014-2020 programming period, they have become a common policy lever at the national and regional levels within the European Union.

The S3 approach includes the topic of Transformative Activities, which can be understood as a number of innovation-related activities undertaken by a group of actors targeting the same (technical, market or industrial) area and having the potential to significantly transform existing industries. It is characteristic for Transformative Activities to happen between traditional sectors. Transformative Activities do play an important role in the field of Bioeconomy. An example for Transformative Activities is bio-based packaging, which emerged from traditional sectors like packaging and polymer production in combination with re-use of Biomass. One of the key objectives of the S3 approach is to stimulate the emergence of such Transformative Activities in a given regional, based on respective strengths. The outcome of the S3 process should neither be an individual project nor a sector as a whole, but a set of Transformative Activities.

The practical experience with S3 development in the regions of the Alpine Space demonstrates that the identification of Transformative Activities and the generation of critical mass is far from trivial and

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9 Foray, Dominique (2015), *Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy*, Routledge Publishing: Abingdon, U.K.

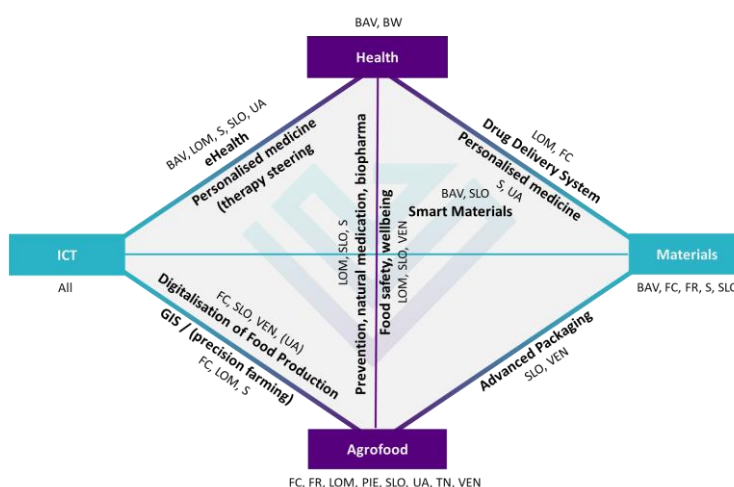
10 The Smart Specialisation Concept is not entirely new. Rather, it is a refinement and upgrading of the existing methodology for Structural Funds programming. It is based on 15 years of experience in supporting innovation strategies in the regions, and on frontline economic thinking by major international institutions such as the World Bank, the OECD and the IMF.

requires appropriate processes and tools. Sticking to broad priority areas, regions systematically neglect to focus on transformation processes in their S3 documents. The lessons learned from the S3-4AlpClusters project reveal clear challenges in current development and implementation of S3 in the Alpine Space. The systematic identification of priorities is a complex exercise requiring new tools to support the entrepreneurial discovery process. The development of concrete actions is, in many cases, hampered by the lack of critical mass. Cross-regional cooperation, based on complementary needs, is critically missing from the given framework conditions. Given the huge potential of cross-regional cooperation and cluster-based processes, these challenges represent a clear call for action to enhance collective practical<sup>11</sup>.

**In this context the so called S3 Synergy Diamond facilitates the discussions on Transformative Activities in cross sectorial and cross regional aspect.** It helps regions to identify Transformative Activities, based on existing areas of regional specialisation. For instance, Figure 3 displays Priority Areas of selected EUSALP regions (at the corners) and what Transformative Activities they commonly focus at (between two corners). Due to a lack of cross-regional approaches these Transformative Activities can not (yet) commonly addressed.

*Figure 3: Illustration of S3 Synergy Diamond targeting one of the EUSALP challenges<sup>12</sup>*

The S3 Synergy Diamond groups the priority area of a given region at the corners and displays the identification of transformative activities between them. In the end, the entire S3 Synergy Diamond illustrates where relevant transformative activities emerge from in a given region. It also can be applied in a macro-regional (EUSALP) context, where it results in the identification of Transformative Activities, which can be further developed based on cross-regional approach.



11 Dermastia, M.; Osvald, D.; Patzelt, D. (2018): Towards a Systematic Bio-based Industry Approach for the Danube Region, Working paper, [http://www.interreg-danube.eu/uploads/media/approved\\_project\\_output/0001/25/32c3b38506521642ab4467bbf3453c16db164c50.pdf](http://www.interreg-danube.eu/uploads/media/approved_project_output/0001/25/32c3b38506521642ab4467bbf3453c16db164c50.pdf), last access: 24 January 2019

12 Meier zu Köcker, G.; Dermastia, M.; Keller, M. (2017), Strategic Alpine Space Areas for Cross-regional Cooperation, DOI: 10.23776/001

## BIOECONOMY

Bioeconomy describes a concept that acknowledges the full potential of biotechnological research and innovation for the economy and society as a whole. The Bioeconomy, often referred to as ‘bio-based economy’, encompasses the production of bio-based resources and their conversion into food, feed, bioenergy and bio-based materials. A bio-based value chain includes the primary production of bio-based resources, their conversion to higher-value goods via processing and commercialisation on the market<sup>13</sup>. The Bioeconomy uses the biomass resources — originating directly or indirectly from plants, microorganisms or animals—and biological knowledge. Bio-based resources are all resources containing non-fossil, organic carbon, recently (<100 years) derived from living plants, animals, algae, microorganisms or organic waste streams. These are summarized in the term “biomass”<sup>14</sup>. These elements are at the heart of a circularity and sustainable development that delivers strong regions by creating a flourishing economy that respects the environment. This is done by reducing dependence on fossil fuels and finite materials without overexploiting renewable resources. It is also based on efforts directed at preventing biodiversity loss and land use change, regenerating the environment and creating new greener, circular based, economic growth and jobs.

Launched and adopted on February 13, 2012, Europe's Bioeconomy Strategy addresses the production of renewable biological resources and their conversion into vital products and bio-energy<sup>15</sup>. Planetary boundaries<sup>16</sup>, coupled with limited resources forced us extend boundaries force us towards sustainability framework, with strong considerations of food security, circularity, inequality. In regard latest, European policymakers agreed that Bioeconomy is a necessary to achieve sustainability constitutes a strong incentive to modernize European industries and to reinforce Europe’s position in a highly competitive global economy, thus ensuring the prosperity of its citizens. In October 2018, the EU launched the updated Bio-economy strategy for Europe. The 2018 update of the strategy aims to accelerate the deployment of a sustainable European bio-economy so as to maximize its contribution towards the 2030 Agenda and its Sustainable Development Goals (SDGs). It contributes as well to the Paris Agreement on climate change<sup>17</sup>. The updated Bio-economy Strategy highlights the importance of regional bio-economy strategies and of rural renaissance. Directly contributing to the sustainable management of natural resources, the Strategy proposes three main actions: i) Strengthen and scale up the bio-based sectors; unlock investments and markets, (ii) Deploy local bio-economies rapidly across the whole of Europe, and (iii) Understand the ecological boundaries of the bio-economy. The development of the Bioeconomy concept by the institutions of the EU was mirrored by efforts to establish this concept in the EU member states.

13 Bioeconomy Shaping the Transition to a Sustainable, Bio-based Economy, University of Hohenheim, 2018

14 Zorb, Ch., Lewandowski, I.; Kindervater, R.; Göttert, U.; Patzelt, D. (2018); Bio-based Resources and Value Chains <https://link.springer.com/book/10.1007/978-3-319-68152-8>

15 European Commission (2012a), “Innovating for Sustainable Growth: A Bioeconomy for Europe”, Brussels

16 The planetary boundaries concept presents a set of nine planetary boundaries within which humanity can continue to develop and thrive for generations to come” (<http://www.stockholmresilience.org/research/planetary-boundaries.html>):

1. Stratospheric ozone depletion, 2. Loss of biosphere integrity (biodiversity loss and extinctions) 3. Chemical pollution and the release of novel entities 4. Climate change 5. Ocean acidification 6. Freshwater consumption and the global hydrological cycle 7. Land system change 8. Nitrogen and phosphorus flows to the biosphere and oceans 9. Atmospheric aerosol loading (<http://www.stockholmresilience.org/research/planetary-boundaries/planetaryboundaries/about-the-research/the-nineplanetary-boundaries.html>), last access: 22 December 2018

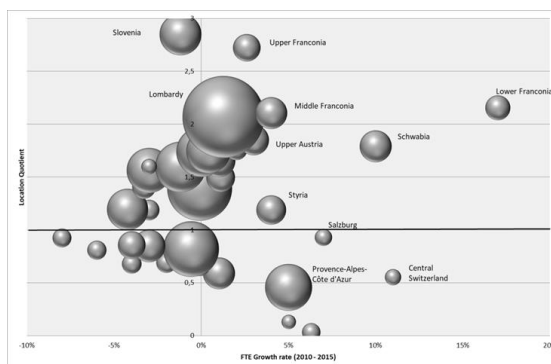
17 A sustainable Bioeconomy for Europe: strengthening the connection between economy, society and the environment, Updated Bioeconomy Strategy, EC 2018

The sector of Bio-based industry is of major concern for the Sub-Group “Cluster & Bioeconomy” (excluding bio-fuels / bio-energy) and, thus, in the focus of all further considerations.

For a vital Bioeconomy in the Alpine Regions, it is important to be aware of local commodities and have opportunities for a close cooperation between several different and capable industrial branches. Various examples demonstrate a huge potential for the development of the Alpine Region through transnational cooperation in the Bioeconomy field. This is especially the case if the key parts of the transnational value chains can be appropriately connected. To unleash the potential of the Bioeconomy, a better understanding of regional funding strategies and related conditions is needed. Both are presented in the following sections.

*Figure 4: Level of specialisation vs. growth rates of employment for Alpine Regions (with regard to Bio-based Packaging)*

Figure 4 illustrates the competitiveness of the Alpine Regions in the sub-sector of Bio-based Packaging. Many Alpine Regions reveal specialisation (Location Quotient above 1, especially Slovenia and Upper Franconia) and / or significant growth rates in terms of employment (e. g. Lower Franconia, Central Switzerland or Swabia).



### 3. BIOECONOMY STRATEGIES IN THE ALPINE REGION

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As described in the previous chapter, the Smart Specialisation Strategies of the EUSALP were reviewed with regard (i) To what extent is Bioeconomy and related sub-sectors mentioned as Priority Areas within the S3 of the Alpine Regions?, (ii) Does dedicated strategy for Bioeconomy development and / or Bio-based Industry support exists on regional level?, (iii) Are dedicated regional support schemes / funding programmes in place that can be bundled by means of a Synchronised or Joint Call.

This chapter takes a closer look at the different Smart Specialisation Strategies of the EUSALP regions with a dedicated focus on Bioeconomy. It has to be noted that there is no mutually accepted definition of Bioeconomy. This term and the related understanding significantly varies across Europe<sup>18</sup> and the EUSALP regions. Since it was not the purpose of the study to develop it's own understanding or definition, it was agreed, in close communication with selected sub-group members, to select an existing one, which suits best the purpose of the study. The definition, which is applied in the Italian National Bioeconomy Strategy was considered to be able to guide review process and to draw lessons learned from the current status of Bioeconomy related S3 in a very appropriate manner and comprised Agri-food, Wood / Forestry, Bio-based Industry and Marine Bioeconomy. Since the latter one is not significant for the EUSALP region, it was agreed to analyse the S3 of the EUSALP regions according to the first three sub-sectors

Review shed light on the huge thematic variety with regard to Bioeconomy related strategies and programs. Alpine Space macro region does not have any specific Bioeconomy strategy, there is considerable variation regarding the extent to which Alpine Regions Smart Specialization Strategies were specifically focused on the Bioeconomy or rather on related aspects. Alpine regions have different definition of Bioeconomy and it is mentioned as Bioeconomy, bio based Industry, circular economy, among others and in variety of concepts such as emerging value chains, clusters, strategic partnerships.

The analysis of the Smart Specialisation Strategies of the EUSALP regions revealed that none of them put any systematic approach into their S3. Besides this, it became obvious that most regions, even outside of their S3, do not have any specific Bioeconomy or Bio-based Industry strategy defined. The findings come as quite a surprise, taking into account that Bio-based industries and Bioeconomy is assumed to be high on policy agenda. Many EUSALP regions argue that a lot of activities are ongoing at the policy level. However, dedicated strategies and related support programmes, incl. funding schemes, are missing or coming from national sources. Baden-Württemberg and Lombardy are the only regions that have dedicated strategies with regard to Bio-based industry in place or under development. However, EUSALP regions include Bioeconomy related aspects in their Smart Specializations Strategies, where priority (thematic) areas mainly focus on agri-food or wood/forestry.

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<sup>18</sup> The composition also reflect EU structure where agri-food is the most prominent field, followed by food processing, forestry and wood, crop production, fisheries and aquaculture. Within Bio-based industries, frequently named specific areas are biochemical products, bio-based construction, biorefinery, and biopharmaceuticals.



Following chapters provide a closer look at the different Smart Specialisation Strategies of the EUSALP regions with a dedicated focus on sectors like Agri-food, Wood and Bio-based Industries as part of a regional Bioeconomy approach.

## AGRI-FOOD

Generally, EUSALP regions address several thematic areas linked to Agri-food sector. The most relevant ones addressed are:

**Smart Farming.** Smart Farming is a broad concept which combines traditional farming with new technologies like Robotics, ICT, Big Data, Earth Observation, and others). This convergence leads to High Technology Farming / Smart Farming and also contributes to the new paradigm of Sustainable Precision Agriculture (SPF). From a regional perspective, the main objective of supporting R&D and innovation (RTI) in this field is to bundle competences and activities that accelerate the adoption of new technologies that can improve the performance of farming practices and sustainable farm management.

**Nutritional ingredients.** Demand for healthy food and a better knowledge about the ingredients is increasing on the part of modern society. Consequently, this topic is high on the agenda of many Smart Specialisation Strategies of the EUSALP regions. The goal is to provide not only better and healthier food, but also to provide more functional food for dedicated target groups. The idea is to also use functional food for healing purposes. The key challenge in this regard is to collect and interpret consumer demands and trends observed in the regional markets as well as to identify the most promising innovative ingredients.

**Smart Sensors Agri-food.** New combinations between Agri-food and Electronic/ICT can lead to breakthrough innovations. Smart packaging or sensors that indicate whether a cold chain has never been broken are typical examples. More and more agri-food companies are interested in implementing the newest smart electronic systems and enabling the “Internet of Things” (IoT) applications in Agri-food production and processing. The trend for digitalization further fuels the application of smart sensors in the Agri-Food sector. There is a certain amount of overlap of this area with High-tech Farming and Traceability.

**Traceability.** Current consumer markets and food safety regulations demand better traceability of food products. Consumers are more and more interested in knowing more about the origin of the products they buy. Food safety can be better assured when the entire food chain becomes traceable. Modern digital technologies and data application in the agri-food sector across value chains can enable better traceability. The added values can range from making more complete and trusted information available to consumers to improvement of business competitiveness, resilience and sustainability. It can also enable the creation of new businesses.

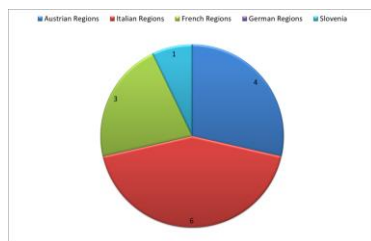
**Food Safety and Quality.** Food safety and improved quality are key objectives in the field of Agri-food. These conditions can be reached by applying new processing technologies such as ICT for quality assurance and improved use of raw materials. This topic is strongly interlinked with traceability, smart packaging and food logistics.

When taking a closer look at the Smart Specialisation Strategies among the EUSALP regions, it can be noted that 14 of them address one or several sub-sectors of Agri-food. Most of these regions are located in Italy and Austria (Figure 5). Neither Baden-Württemberg nor Bavaria focuses their S3 on Agri-food. The main purpose of the respective regional strategies with regard to Agri-food is to improve the availability of healthy and functional food. A further key objective is to promote better sustainability and environmental friendliness of food production. The four topics mentioned above play a major role in this regard.

The two Austrian regions of **Upper** and **Lower Austria** are concentrating their Agri-food-related efforts primarily on the Food and Nutritional Ingredients segment. This ranges from new methods for the innovative analysis of foods to the development of new nutritional ingredients. Non-technical aspects such as improved risk assessment also play an important role. Lower Austria goes even one step further and also supports the development of new plants and pesticides (e.g. adapted plants, pesticide and fertilizer alternatives, and refinement products). Efforts in this field also contribute to improved food safety and quality. Furthermore, Lower Austria pays additional attention to innovations in the field of sustainable food production.

Besides innovations in the field of food production, **Styria** also supports food quality and food safety. New production processes and analytical methods will contribute to the achievement of these goals. As the fourth Austrian region, **Burgenland**, doesn't go that much into details in its respective S3. It focusses mainly on supporting the production of food and beverages. .

*Figure 5: Number of regions per country that focus on Agri-food*



*Figure 6: Regions which focus on Agri-food as Priority Area within their S3*



*Figure 7: Prevailing sub-sectors of Agri-food*

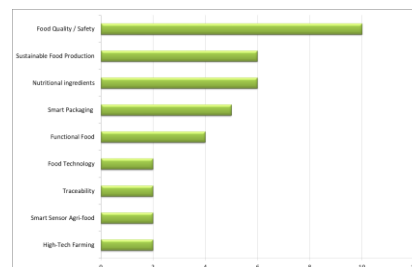


Figure 6 illustrates the respective regions within EUSALP. Especially those regions in the Southern part of the EUSALP region mostly pay attention to Agri-food. The six Italian regions cover a comparable broad spectrum of the Agri-food sector in their S3s.

While food safety and quality play an important role for almost all Italian regions (with the exception of the Trento region), **South Tyrol** focuses on climate-neutral food production, and smart packaging based on an increased use of bio-sensors as well as on supporting the food supply industry. **Trento region**, on the other hand, also supports regional players in the field of nutritional ingredients and traceability, being the only region that also addresses the agricultural machinery sector. Attention is also given to functional food production. With regard to the Agri-food sector, **Friuli-Venezia Giulia's** strategy is certainly comparable to that of South Tyrol, whereas sustainable food production and intelligent packaging also dominate. Particularly in the **Veneto region**, the Smart Sensor Agri-Food topic dominates, as the region places a clear focus on intelligent food packaging. Additionally,

the area of nutrition ingredients is also regarded in the region's S3. Due to its regional strength, **Lombardy** focusses on a comparably broad spectrum of Agri-food. The area of improved food production is of particular relevance. However, the main research priorities are focused on achieving a sustainable and competitive Agri-food supply chain. Related topics of interest include individual well-being, new solutions for healthy ageing through food supplements and nutraceuticals, food safety and security. Traceability, sustainable food production, and smart packaging are the main topics on which the **Piedmont region** concentrates. Furthermore, in addition to Slovenia, Piedmont is among the rare EUSALP regions that intend to strengthen the Smart Farming sector.

All three French regions focus on sustainable food production, whereas the overall scope of their S3 with regard to Agri-food is smaller than that of the Italian regions. The small region of **France-Comte** in particular sees special potential in the area of sustainable Agri-food production within the framework of its S3. In addition, the **Alsace region** directs its investments in R&D and innovation to the area of Healthy Food and Smart Sensor Agri-food. The region **Provence-Alpes Cote d'Azur** is more dedicated to nutrition-health, functional food and food supplement manufacturing.

The topic of Agri-food is also firmly anchored in the S3 of **Slovenia**. In this country, the combination of high quality and sustainable food production is to be achieved by optimising the supply chains and using digital-based technologies. The latter ones are also intended to stimulate innovation in the field of Smart Farming. Attention is also given to making more use of new technologies for improved traceability along the food value chain.

Food Quality / Safety, followed by Sustainable Food Production and Nutritional Ingredients are the sub-sectors that most of the EUSALP regions focus on (Figure 7). Overall, it can be concluded that many of the EUSALP regions concentrate on selected sub-sectors of the priority area of Agri-food in order to stimulate research, development and innovation for the domestic industry. While the Italian regions tend to cover a broader Agri-food scope within their Smart Specialisation Strategies, the French regions concentrate on sub-areas of Agri-food. As far as the four Austrian regions are concerned, there is no characteristic pattern. The Burgenland region follows a more generic approach while Lower and Upper Austria as well as Styria focus on specifically dedicated topics. Slovenia addresses topics in the field of Agri-food, as do many other regions. The aspect of biomass utilisation or circular economy is more strongly emphasised in Slovenia than in the other EUSALP regions.

All these regions follow a similar pattern when taking a closer look at the Operational Plans. Innovation and increased competitiveness in the Agri-food area are pursued by investing in R&D and enabling a better cooperation between industry and academia. Related measures include direct promotion of SMEs, increased networking among all actors and by enhancing ICT in the Agri-food areas. It shall be noted that networking and clustering is high on the agenda in most of the relevant Smart Specialisation Strategies. Consequently, cluster development is part of the support scheme. More or less all regions have at least one cluster initiative (or similar) in place that operates in the field of Agri-food. Finally, the analysis reveals that there is not much attention given to facilitate cross-regional cooperation. In cases where an international dimension is mentioned, the Smart Specialisation Strategies always refer to European Programs like Horizon 2020 and COSME.

## WOOD

The forested area of the EUSALP region amounts to roughly 87,000 km<sup>2</sup> and covers around 46% of the total area. Wood became an important raw material for products, like furniture, building materials (wood houses) and renewable energy. Thus, without doubt, the wood industry can be considered as an important industry for all the EUSALP regions<sup>19</sup>.

The analysis of the Smart Specialisation Strategies of the EUSALP regions with regards to wood and forestry revealed that only five EUSALP regions (Salzburg, Styria, Tyrol, South Tyrol and Slovenia) put dedicated attention to wood or related topics in the context of their respective Smart Specialisation Strategies (s. Figure 7). This observation came out as a surprise, taking the economic and ecological importance into account. Furthermore, in most cases, the strategies related to wood are, by far, not as elaborated as they are in the field of Agri-food.

*Figure 8: Regions which focus on Wood as Priority Area within their S3*



As explained further in the text below, Eco-Construction is one of the prevailing topics that the five EUSALP regions focus on. Eco-friendly or ecological construction (Eco-Construction) is building a structure that is resource efficient and beneficial or non-harmful to the environment. Also known as green building, this type of construction is especially efficient in its use of local and renewable materials (preferably wood-based materials). Also, in terms of energy production and consumption, Eco-Construction focuses on obtaining the required energy from green sources. Eco-friendly construction has developed in response to the knowledge that buildings often have a negative impact upon our environment and our natural resources. This includes transporting materials hundreds or thousands of miles, which increases the energy required for transportation and avoids the emissions of hazardous chemicals from a poorly designed building that creates and traps them.

**The region of Tyrol** mainly promotes improved manufacturing and automation of wood and wood-based products by introducing technologies and processes which are already successfully implemented in other manufacturing applications. Although the respective S3 does not go further into detail, the regional wood cluster is considered to be a key tool to support wood-based innovation.

**Salzburg region**, known as a highly specialised region for alpine timber construction, makes significant efforts in the field of Eco-Construction. It works to combine Eco-Construction with Eco-Design and Sustainable Building in order to generate cross-sectoral innovation. Eco-Construction / Smart Building are also intended to become a new course of studies and part of the future Master's programme on Smart Cities.

**Styria** included the topic of wood in its core topic “Eco-Tech: The efficient and sustainable use of natural resources”. The Smart Specialisation Strategy is not very precise in this regard, but intends to make more use of Eco-Technologies for improved wooden-based products.

<sup>19</sup> <https://www.alpine-region.eu/projects/triple-wood-triple-wood-sustainable-wood-building-culture-alpine-region>, last access: 23 January 2019

Also, the Smart Specialisation Strategy of **South Tyrol** is not very precise with regard to wood. It highlights the sustainable use of wood as a renewable raw material and promotes Eco-Constructions at its core.

The **Smart Specialisation Strategy of Slovenia** puts the topic of “Wood” in the context of Smart Building. It aims to develop integrated management systems for buildings (also wood-based), homes and the working environment of the future. It also identifies “internet of things” including smart appliances for energy efficiency and self-sufficiency of buildings. In this context Eco-Construction is also very much promoted, especially through the integration of the wood chain in the design and construction of houses.

## BIO-BASED INDUSTRY

The bio-based industry is a segment of the Bioeconomy that uses renewable biological resources in innovative industrial processes for manufacturing biomass-derived goods, products and services. Hence, it concerns industrial sectors which traditionally use biological resources as their main feedstock and others for which biomass is part of their raw material portfolio<sup>20</sup>. The analysis of the Smart Specialisation Strategies of the EUSALP regions with regards to Bio-based industry revealed that only four EUSALP regions (Baden-Württemberg, Lombardy, Lower Austria and Slovenia) give dedicated attention to this topic.

*Figure 9: Regions which focus on Bio-based Industry as Priority Area within their S3*



Although Bio-based industries are not a specific topic in the S3 of **Baden-Württemberg**, an entire Bioeconomy strategy is currently under development (see further details on the next pages). A similar situation also exists in **Lombardy**. A “Regional Strategy for Bioeconomy” is one of the objectives of the territorial government in Lombardy. However, it is not part of its core Smart Specialisation Strategy (see further details on the next pages).

**Lower Austria** focusses in its S3 significantly on bio-based technologies and stronger use of biomass as source for new raw-materials. In general, Bioresources, beyond Bioenergy, are of high relevance, especially if it’s contribute to support biodiversity in the region. Lower Austria’s S3 is well aligned with the National Bioeconomy Strategy.

**Slovenia supports Strategic Innovation Partnerships<sup>21</sup>**, in various areas related to bio based industry, among them: (2) Networks for the transition into circular economy which includes the support of technologies for sustainable biomass transformation and new Bio-based materials as well as technologies for use of secondary and raw-materials and the reuse of waste. Increased international partnering to promote Bio-based industries is actively encouraged. (2) SRIPs Smart buildings and homes, including wood chain operates in wide range of smart and sustainable buildings of wood or

<sup>20</sup> BIT – Bioeconomy in Italy, [https://scar-europe.org/images/SCAR\\_EVENTS/Greece\\_24\\_05\\_2018/2-5\\_Annalisa\\_Zessa.pdf](https://scar-europe.org/images/SCAR_EVENTS/Greece_24_05_2018/2-5_Annalisa_Zessa.pdf), last access: 22 January 2019

<sup>21</sup> Strategic Innovation Partnership can be considered as novel cluster organization design for S3, last access: 21 January 2019



classic materials, home appliances and home management systems, and specifically includes wood, wood technology and wood value chain. It is organized into four focus areas: a) smart devices and systems, b) wood and wood chain, and c) active building management.

Other regions refer to national Bioeconomy strategies programmes, which exist in Austria, Germany, Italy (and Slovenia). E. g. Italian regions, Bavaria or Upper Austria make clear reference to these national. Other regions have isolated activities in place that contribute to the development of Bio-based Industries. E. g. Espace Mittelland or Upper Austria support cluster initiatives, which partly focus on Bio-based Industries.

The findings come as quite a surprise, taking into account that Bio-based industries and Bioeconomy is assumed to be high on policy agenda. Many Alpine Regions argue that a lot of activities are ongoing at the policy level. However, dedicated strategies and related support programmes and funding schemes are missing or coming from national sources. Baden-Württemberg and Lombardy are the only regions that have strategies with regards to Bio-based industry under development. The current status is described in the following chapters. Salzburg government just announced end of the year 2018 to develop a dedicated regional strategy for Bioeconomy, but no details are known yet.

## **EXAMPLES OF BIOECONOMY STRATEGY**

### **BADEN-WÜRTTEMBERG**

Currently, Baden-Württemberg is developing a Bioeconomy strategy, which dedicated focus on Bio-based Industries. The design builds on a public participation process, in which BIOPRO is the project lead. The Bioeconomy definition used in this process for Baden-Württemberg follows the definition of the Bioökonomierat of 2016: “The sustainable Bioeconomy is defined as knowledge-based production and utilization of biological resources, processes and principles for providing products, processes and services in all economic sectors for a future-oriented and sustainable economic and social system.”<sup>22</sup> Since the January 2015, all bio-wastes have to be collected separately in Baden-Württemberg. The aim is to provide resources for a high value energetic and material use<sup>23</sup>

The funding scheme was initiated in December 2017<sup>24</sup> and is designed to run from 2018 until 2020. In Baden-Württemberg, consensus within the regional government was reached. In aiming for and promoting a transition towards a sustainable Bioeconomy, corresponding activities must focus on R&D as well. They must emphasize the early adaptability of scientific knowledge into commercial viability. This approach has been considered in the formulation of current funding schemes that address sectors and sub-sectors associated with the Bioeconomy. A twofold approach is followed<sup>25</sup>. One is based on the transferability of ideas and techniques of academic research into commercial application. The other is based on the application of unconventional approaches towards the

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22 <https://www.bio-pro.de/de/projekte/beteiligungsprozess-nachhaltige-biooekonomie/>

23 <https://www.lubw.baden-wuerttemberg.de/abfall-und-kreislaufwirtschaft/kompetenzzentrum-bioabfall>

24 [https://mwk.baden-wuerttemberg.de/fileadmin/redaktion/m-mwk/intern/dateien/pdf/Aktuelle\\_Ausschreibungen/Bio%C3%B6konmie/Forschungsprogramm\\_Bio%C3%B6konomie\\_BW\\_X\\_2\\_F%C3%B6derrunde.pdf](https://mwk.baden-wuerttemberg.de/fileadmin/redaktion/m-mwk/intern/dateien/pdf/Aktuelle_Ausschreibungen/Bio%C3%B6konmie/Forschungsprogramm_Bio%C3%B6konomie_BW_X_2_F%C3%B6derrunde.pdf)

25 <https://biooekonomie-bw.uni-hohenheim.de/mission>

Bioeconomy. Inherent in both lines of funding is the focus on topic areas such as lignocellulose, microalgae and Bio-economic modelling as well as making use of regional potentials for innovation in Bio-economic applications. Additional funding programmes that target the broader area of Bioeconomy are<sup>26</sup>: (i) European Innovation Partnerships (EIP) – Agricultural Productivity and Sustainability (Agri)<sup>27</sup>, (ii) Sustainable Forestry<sup>28</sup>, (iii) Innovative Wood Programme<sup>29</sup>, (iv) Agricultural investment funding programme (AFP) for individual farmers, and (v) Funding support of agricultural market structures. Key to all projects funded shall be the easy transferability of scientific knowledge into entrepreneurial practice with the best-case scenario being projects that are designed to tackle questions derived directly from business practice.

## LOMBARDY

The “Regional Strategy for Bioeconomy” is one of the objectives of territorial governance in Lombardy that is being implemented outside the core Smart Specialisation Strategy. This Action Plan will allow Lombardy to have a programming system to enhance services and technologies to support the industrial sector and to make the regional context attractive for national and foreign investors.

The main pillars for this purpose are: (i) Creation of integrated Bio-refineries in the territory to obtain high added value products (Biochemicals, Biomaterials); (ii) Development and optimization of innovative technologies and efficient processes through R&D and scale-up activities to pilot plants and demonstrators construction; (iii) Development of new Bio-based products (obtained partially or totally from materials of renewable origin), with low environmental impact and with benefits from a social and economic point of view, able to develop new functionalities or guarantee superior performance compared to traditional products; (iv) Development of new markets for Bio-based products, through specific measures aimed at boosting productivity and resource efficiency; (v) Stimulation of the development of innovative technologies and the promotion of intra-sectoral collaboration along the actors of the value chain; (vi) Facilitation of the exchange of knowledge between different stakeholders (agricultural, research, industrial, institutional), and creating an environment conducive to investment and facilitating access to finance.

The Lombardy Region promotes and supports a local Bioeconomy through the LGCA - Lombardy Green Chemistry Association (<http://www.chimicaverdelombardia.it/en/>). The goal of the cluster is to create at the regional level “the best framework conditions for the setting up of a Bioeconomy based on the use of biomass from agriculture, forest and waste, following the principles of sustainability and cascading use and through the active involvement of the whole value chains”. Regional funds for research, development and innovation are available in Lombardy, mainly focusing on: Sustainable catalytic processes for industrial applications (sustainable chemistry), Creation of bio-refineries for the integrated production of value-added products from food crops and waste biomass (bio-economics), Bioeconomy of the future.

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<sup>26</sup> This survey has been done by partners BIOPRO and ClusterAgentur BW in the frame of the AlpLinkBioEco Project

<sup>27</sup> [http://lw.landwirtschaft-](http://lw.landwirtschaft-bw.de/pb/MLR.Foerderung,Lde/Startseite/Foerderwegweiser/Europaeische+Innovationspartnerschaft+_EIP_)

[bw.de/pb/MLR.Foerderung,Lde/Startseite/Foerderwegweiser/Europaeische+Innovationspartnerschaft+\\_EIP\\_](http://lw.landwirtschaft-bw.de/pb/MLR.Foerderung,Lde/Startseite/Foerderwegweiser/Europaeische+Innovationspartnerschaft+_EIP_)

<sup>28</sup> [http://www.landwirtschaft-](http://www.landwirtschaft-bw.info/pb/MLR.Foerderung,Lfr/Startseite/Foerderwegweiser/Nachhaltige+Waldwirtschaft+_NWVW_)

[bw.info/pb/MLR.Foerderung,Lfr/Startseite/Foerderwegweiser/Nachhaltige+Waldwirtschaft+\\_NWVW\\_](http://www.landwirtschaft-bw.info/pb/MLR.Foerderung,Lfr/Startseite/Foerderwegweiser/Nachhaltige+Waldwirtschaft+_NWVW_)

<sup>29</sup> <https://efre-bw.de/foerderaufuf/aufruf-zum-foerderprogramm-holz-innovativ/>

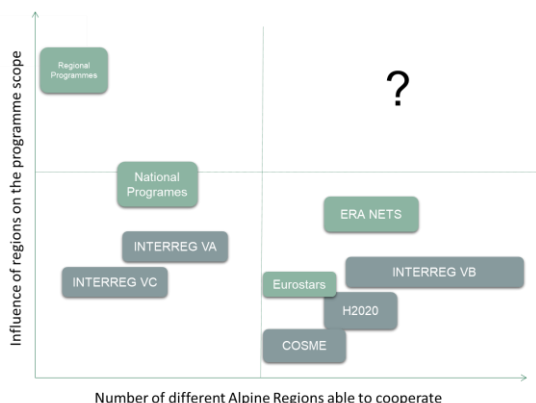
## 4. STATUS QUO OF SUPPORT SCHEMES FOR CROSS REGIONAL COOPERATION IN THE ALPINE REGION

Alpine Regions' Smart Specialization Strategies were adopted to strengthen the innovation capacity and the competitiveness of the regions. The striking finding is that, in S3, there are certain sectors that are targeted. These include sub-sectors of Bioeconomy, like Agri-food, Wood or Bio-based Industries. Not much attention is given to the development of transformative activities and value chain development<sup>30</sup>. Besides, the S3-4AlpCluster projects revealed that Alpine Regions do not align their S3 with their neighboring regions. Instruments and measures of S3 mainly support excellence in already existing local assets (Smart specializations strategies are by definition spatial focused instruments). Measures and instruments which are focused on transregional synergies and value chains practically do not exist<sup>31</sup>. Consequently, the framework conditions for cross-regional cooperation, also in the field of Bioeconomy, tend to be weak and poorly aligned between regions. They are completely lacking focus on need-based cooperation<sup>32</sup>. The threshold of interactions for uptake of bio-based activities in the Alpine Regions has yet to be reached. The Bioeconomy potential might be more readily exploited in other regions which offer better framework conditions for transregional cooperation. Investments and jobs may move to other places.

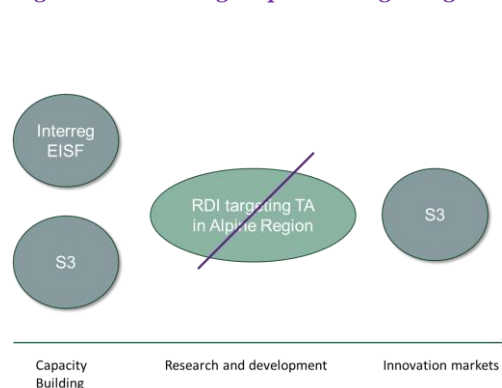
### MACRO-REGIONAL FUNDING GAP

There are several programmes that support actors from Alpine Regions in cross-regional cooperation. Figure 10 below groups these different modalities according to the extent to which regions can influence the scope of cross-border cooperation programmes. The Figure also indicates the number of different Alpine Regions (and related actors) that are able to cooperate within projects funded under a given programme / call.

*Figure 10: Number of Alpine Region able for cooperate vs. region's influence on the call design*



*Figure 11: Funding Gap - Missing bridge*



<sup>30</sup> Two of the core elements of the concept are the idea that it is activities – and not sectors per se – that are targeted by smart specialisation, and the fact that it is the entrepreneurial discovery process that plays a crucial role in leading the prioritisation of resources, rather than the state planner (OECD, 2013).

<sup>31</sup> Meier zu Köcker, Gerd; Dermastia, Mateja; Keller, Michael (2017), Strategic Alpine Space Areas for Cross-regional Cooperation, published by S3-4AlpProject, DOI:10.23776/001

<sup>32</sup> Keller, Michael; Reisgruber, Iris; Bersier, Jacques; Meier zu Köcker, Gerd (2018) Smart Specialisation Strategies (S3) and Cluster – An Innovation Model for Transformative Activities; DOI: 10.13140/RG.2.2.14017.81761

Cross-sectoral transformation processes depend on having a critical mass of actors and investments in innovation which would significantly benefit from better cross-regional cooperation. In the context of Smart Specialization, it is the private sector that is discovering entrepreneurial opportunities, whereas the government provides conditions for this search to happen and empowers the actors most capable of realizing the potential<sup>33</sup>.

Concerning all these modalities, regions in the Alpine Space do not have many possibilities to influence the programme design and consequently the scope of the call. Furthermore, the current INTERREG Alpine Space support scheme is coming to an end. Consequently, there is no modality currently in place where a group of Alpine Region entities can decide to support Transformative Activities in Bioeconomy or related sub-sectors across regions. This is a call to set up transnational frameworks and instruments to stimulate transformative activities in the context of EUSALP in order to spur investments and jobs along emerging bio-based value chains (VC). Tapping into external capacities and bundling of regional competences would allow Alpine regions to generate the necessary critical mass for uptake of a vibrant Bioeconomy.

Analysis and recent experiences show that multi-regional governance structures for cross-regional cooperation in S3-implementation are critically missing. There is a persistent funding gap which would allow actors from several Alpine regions to explore transformative activities identified in the Alpine Region context. While S3 and EISF focused in upstream (capacity building) and downstream actions (investments, markets), centrally managed EU funds support excellent research and innovation. There is no single instrument for cross-regional RDI projects targeting specific transformation opportunities of particular relevance for Alpine Space regions. Thus, VC development and connectivity, innovation and cluster development efforts are not reached in an optimal way.

Currently there is a missing bridge (Fig 9) between capacity building, investments, and commercialization that would maximize the impact of public policies. Such a bridge could also support the linking of regions, sectors, and value chain stakeholders towards new bio-based businesses bringing new and better jobs and benefits for the environment. Synergies between the ESIF and H2020 would create EISF-H2020 and ultimately help in upscaling the efforts of the Alpine Regions. The next section presents some of the characteristics of existing cross-regional support schemes, followed by potential modalities for funding cross-regional research, development and innovation activities.

## CHARACTERISTICS OF EXISTING CROSS-REGIONAL SUPPORT SCHEME

**Horizon 2020** is the biggest EU Research and Innovation programme, structured in pillars on excellent science, industrial leadership and societal challenges. The programme supports different size of projects for European collaborative projects (new knowledge, technologies, processes, products and services) and provides funding of staff, travel and organizational costs, consumables, depreciation costs of investment in technical machinery, devices, infrastructure (funding rate between 70-100%). The programme has specific rules regarding partnerships and topics and it is not subject to state aid rules. The argumentation for this distinction is that EU funding is centrally managed by the EC and therefore not directly or indirectly under the control of Member States.

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33 OECD (2013) Innovation-driven Growth in Regions: The Role of Smart Specialisation, Paris, OECD

**COSME, EU programme** for the Competitiveness of Enterprises and SMEs offers indirect support for SMEs in facilitating access to finance, supporting internationalisation and access to markets, creating an environment favourable to competitiveness, encouraging an entrepreneurial culture. The funding rate depends on the measures (from 60% and more) and on the financing instruments.

**INTERREG modalities** (funding schemes) by which the EU supports cross-border infrastructure, job market integration and cultural exchange (so-called INTERREG A). The thematic priorities are comparably broad (e. g. research and innovation). However, they are pre-defined and fixed over the entire programme period (currently 2014 – 2020). Funding rules are set by the EC. The related strategy and scope of the calls cannot be much influenced by the regions since the INTERREG scheme can be understood as a tool to implement macro-regional strategies. INTERREG also covers transnational cooperation in larger areas such as the Alpine Space Region aiming at territorial integration of these areas (INTERREG B). From 2014 to 2020, the EU is providing 1.39 billion euros for this type of cross-regional cooperation<sup>34</sup>. INTERREG C supports interregional cooperation between regions, but does not aim to directly support research, development and innovation.

**The EUROSTARS** approach supports international innovative projects led by R&D-performing SMEs. EUROSTARS is a joint programme between EUREKA and the European Commission, co-funded from the national budgets of 36 participating countries and the European Commission through Horizon 2020. For the 2014-2020 period, it has a total public budget of €1.14 billion. Consortium members apply in their home countries within the framework of existing national calls. Given the case that all international consortium partners receive approval from the national programme owners (or related programme management authorities), the international consortium receives funding. Under EUROSTARS, the national programmes are not aligned or synchronised. The ERA NET scheme was described in the chapter before.

Under the **ERA-NET scheme**, national authorities identify RDI areas and related programmes they wish to coordinate RDI activities mutually. The participants in these actions are therefore programme 'owners' (typically ministries) or programme 'managers' (typically funding agencies managing RDI programmes). Although invented by European member states, the ERA-NET was well acknowledged by the EC. Involvement of the EC in the ERA-NET scheme of the European Member States has further increased over the last decade. Under Horizon 2020, the EC contribution shifted from funding ERA-NET networks to 'topping-up' funding of single joint-calls for transnational research and innovation (prevailing activities during PF6 and FP 7) towards a more systematic contribution. ERA-NET under Horizon 2020 merged the former ERA-NET and ERA-NET Plus into a single financial instrument with the central compulsory element of implementing one substantial call with top-up funding from the EC (ERA COFUND). This was designed to increase substantially the share of funding that Member States dedicate jointly to challenge driven research and innovation agendas<sup>35</sup>.

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<sup>34</sup> [https://www.interreg.de/INTERREG2014/EN/Home/home\\_node.html;jsessionid=DD3E7D5116A276D8360A911C6A733704.live21303](https://www.interreg.de/INTERREG2014/EN/Home/home_node.html;jsessionid=DD3E7D5116A276D8360A911C6A733704.live21303), accessed 26 November 2018

<sup>35</sup> <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/era-net>, website approached 25 November 2018



The added value of **ERA-NET COFUND** primarily lies in strengthening transnational collaboration and building long-lasting relationships across countries, as well as achieving a critical mass of resources to address common challenges (in some cases the number of projects that the networks have been able to support has doubled because of the EC top-up funding). The ERA-NET scheme also contributes to increasing the quality of RDI activities (increased competition in research leading to higher quality and excellence). It allows countries to access complementary knowledge and/or research capacity from other countries to address specific societal challenges. It also contributes to increasing Europe's visibility and attractiveness as an RDI location.

## MODALITIES OF CROSS-REGIONAL COOPERATION

As presented in the previous chapters, there is currently no funding scheme in place by which EUSALP regions can define scope, modalities and kind of cooperation by their own. On the contrary, on national level different modalities for funding cross-border research, development and innovation activities do exist since many years. The prevailing modes are the so called Joint Call, mainly implemented through the Common Pot approach and the Synchronised Call approach, mainly implemented by means of the Virtual Pot approach (s. also Glossary). In both cases, cooperation between partners (regions or countries) is based on regional / national programmes that already exist. The following tables explain similarities and differences of both modes.

*Table 1: Real common pot funding scheme (Joint Call) highlights<sup>36</sup>*

<b>Main features</b>	A common budget, irrespective of the national/ regional affiliation of applicants, is established. The decision on which proposals should be retained for funding will be based on the evaluation by the international experts committee and the designated decision-making body.
<b>Advantage and Benefit</b>	<ul style="list-style-type: none"> <li>• High commitment from all participating regions / countries,</li> <li>• High trust among the participating regions/countries and related programme agencies,</li> <li>• Same chance for all applying consortia regardless of the individual contributions of the regions / nations.</li> <li>• Positioned to jointly fund the best quality proposals.</li> </ul>
<b>Challenges</b>	<p>National/ regional programme management agencies do not retain control of funding decisions and funding, and might, depending on the funding decisions, fund non-national and non-resident researchers according to the committed budget.</p> <p>National / regional legal provisions may restrict or disallow funding of non-residents</p>
<b>Administrative efforts and benefits</b>	Administrative coordination with other national / regional programme management agencies is necessary to establish joint call procedures, and administrative effort is needed in order to ensure efficient operation of joint call decisions and joint funding, in accordance with joint standard rules and procedures.
<b>Summary</b>	Most sustainable and reliable approach, but also most challenging due to high alignment of national / regional funding roles.

*Adapted by the author*

<sup>36</sup> European Commission, DG R&D, Niehoff, Jörg (2017) The ERA-NET scheme from F6 to Horizon 2020, <https://www.kowi.de/Portaldata/2/Resources/fp/Report-ERA-NET-FP6-H2020.pdf> , last approach 23 November 2018

The term “Synchronized Call” is used mainly in the context of the Virtual Pot approach. This implies “synchronization” of existing programmes by opening and closing related Calls at the same time in various regions. A good example for such an approach is the Innovation Express Call implemented in the Baltic Sea Region over the last several years. Based on the Virtual Pot approach, the Innovation Express represents a common approach for supporting the internationalization of SMEs through cluster initiatives. The funding instrument is designed to facilitate internationalization and cross-border learning by developing transnational linkages among SME networks, clusters and other specialised research and innovation nodes. The Call is funded by national and regional funding agencies to initiate, develop or enhance transnational cooperation activities. This serves to encourage cluster organizations (or similar) to develop proposals for their SME members<sup>37</sup>. More details are presented in Annex 2.

**Table 2: Virtual common pot funding scheme (Synchronised Call) highlights**

<b>Main features</b>	<ul style="list-style-type: none"> <li>• Each participating programme management agency funds its own successful applicants.</li> <li>• No cross-border funding is involved (no money is crossing any border).</li> <li>• Evaluation of proposals is undertaken by dedicated committee (mostly consisting of representatives from participating countries / regions), whereas funding decisions and funding is undertaken by individual national or regional programme management agencies, in accordance with their own standard rules and procedures.</li> </ul>
<b>Advantage and Benefit</b>	<ul style="list-style-type: none"> <li>• Transnational / cross-regional cooperation enabled</li> <li>• Comparable easy to implement</li> <li>• Certain kind of commitments from participating countries / regions</li> <li>• No funding rules have to be aligned</li> </ul>
<b>Challenges</b>	<ul style="list-style-type: none"> <li>• Alignment of national / regional funding rules to set up synchronised calls</li> <li>• Common agreement in certain call scope</li> <li>• Countries / regions providing smaller budgets cannot fund as many partners as partners providing bigger budgets</li> </ul>
<b>Administrative efforts and benefits</b>	Administrative coordination with other programme management agencies is necessary to establish synchronised call procedure. Administrative effort is needed in order to ensure efficient operation of the synchronised call decisions, in accordance with own standard rules and procedures.
<b>Summary</b>	Most easy approach to establish transnational or cross-regional funding schemes.

*Adapted by the author*

Practice has shown that partner regions, which wish to cooperation cross-regionally, but do not have significant experiences or are not prepared for a strong, long-term commitment, start first actions by a Synchronised Call, since it is easier to implement.

<sup>37</sup> <http://www.bsr-stars.eu/innovation-express/>, last access: 20 November 2018

## 5. CONCLUSIONS

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Certain key conclusions can be derived from analyses and discussions presented in the previous chapters and from ongoing projects implemented by members of the Sub-Group “Cluster & Bioeconomy”. They can be summarized as follows:

**The analysis of the S3 of the EUSALP regions revealed that none of them has any systematic Bioeconomy strategy in place.** The EUSALP regions have addressed Bioeconomy from a variety of thematic areas with regards to strategies and programs. Regions, like Baden-Württemberg, Lombardy or Lower Austria mentioned Bio-based industry development to a certain extent within their S3. However, dedicated strategies for support of innovation in the field of Bio-based industry are mostly still under preparation. Many EUSALP regions focus on research and innovation in Agri-food as sub-sectors of the Bioeconomy in particular on Food Quality and Safety followed by Sustainable Food Production and Nutritional Ingredients. A couple of regions also address Wood as important part of their S3.

**A systemic approach that can tackle sustainability with strong considerations of circularity, environment, and cohesion / inequality practice does not exist as part of the S3 of the EUSALP regions.** Nevertheless, existing policy documents and interviews with members of the Sub-Group “Clusters and Bioeconomy” have shown that Bioeconomy remains high on the agenda in most EUSALP regions, even if not backed with dedicated S3 or related programmes. One reason for the seemingly contradictory situation might be that most S3 have been developed in the period between 2011–2013, whereas Bioeconomy moved up on the policy agenda more recently fueled by the attention given to the sustainability framework, food security, circularity, cohesion and inequality<sup>38</sup>. Also, in many regions, the S3 development process was moderated by regional Ministries for Economy or Innovation, Research and Education. The topic of the Bioeconomy covers a much wider scope of policy and areas of competence covered by other ministries as well such as environment, agriculture, regional development and others.

**Only some regions have dedicated intermediaries and networks focused on bioeconomy, such as BIOPRO BW, Bavaria (Sachverständigen Rat), that are in a position to facilitate policy debate and private public dialog in this regard.** Many regions have clusters in place that focus on research, innovation, cooperation, skill development related to Bioeconomy. Among them are the Lombardy (Green Chemistry Cluster), Slovenia (SRIP Circular Economy) Espace Mittelland (INNOSQUARE), Auvergne-Rhone Alpes (Pole des Compétitivité Chimie et Environnement), Lower Austria (Food Cluster Ecoplus) or Upper Austria (Food Cluster). Mainly they are focused on industrial sectors and do not include farmers, cooperatives and other bio-mass providers, which are often disconnected from high-end bio-based value chains.

**The analyses of the S3 of the EUSALP regions also pointed out that not much attention is given to support Transformative Activities, which are playing an important role in the concept of**

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<sup>38</sup> EU Bioeconomy was published 2012 and revision 2018

**S3**<sup>39</sup> There is no single instrument for cross-regional research, development or innovation activities with particular relevance for EUSALP regions. Smart specializations strategies are, by definition, spatially focused instruments linked to EISF. Centrally managed EU funds such as Horizon 2020 support excellent research and innovation. They also support cross-border infrastructure, job market integration, cultural exchange and territorial integration. This results in a persistent gap in funding that would allow actors from several Alpine regions to explore transformative activities identified in the EUSALP Region Bioeconomy context. . This also limits their capability to address the formation of critical mass along emerging cross-regional value chains. Consequently, the impact on circularity, cohesion and climate change is not optimal.

The vast bioeconomy potential of the EUSALP region can effectively be exploited through transregional cooperation. Cross-border synergies can close gaps along bio-based value chains and are instrumental for creation of certain critical mass of activities in the region. There is a need to also specifically target the development of new value chains or extension of existing value chains in the field of Bioeconomy<sup>40</sup>. **The concept of Bioeconomization of clusters emerged from the DanuBioValNet project and aims to make a more sustainable impact on the economy, environment and society. In its core it aims to bring traditional industries and cluster closer to Bioeconomy. In this regard the future focus should be on transformative activities that contribute to Bioeconomization with proactive engagement of actors from a variety of sectors, industries, farmers, cooperatives, clusters in urban and rural areas.**

Discussion with members of the Sub-Group “Clusters and Bioeconomy”<sup>41</sup> point to the direction that the (Circular) Bioeconomy can be effectively introduced in the region based on certain areas of application (through Bioeconomization). This includes ensuring that a higher share of recycled materials is used in chemical process technologies and that there is an increased use of biomass as raw material for food production. This would bring the Bioeconomy closer to certain Priority Areas, which play an important role for many EUSALP regions. Examples of these areas include **Health, ICT, Materials, AgriFood**. **The “Bioeconomisation” of such sectors, industries, clusters has a clear cross-sectoral dimension with a focus on Transformative Activities between Bioeconomy and related Priority Areas.** It has a high potential for innovation, job creation and SME growth and increased sustainability. Such an approach would also be in line with the Strategic Alpine Space Areas for Cross-regional Cooperation. These are areas where one can expect the highest impact of cross-sectoral cooperation with highest relevance for the Alpine Regions<sup>42</sup>.

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<sup>39</sup> Foray, Dominique (2015), Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy, Routledge Publishing: Abingdon, U.K.

<sup>40</sup> Reference is given to many Interreg Alpine Space and ARPAF projects like S3-4AlpClusters, CirculAlp, TRANSALP, AlpLinkBioEco, AlpBioEco etc.

<sup>41</sup> Salzburg meeting, October 2018

<sup>42</sup> Meier zu Köcker, G.; Dermastia, M.; Keller, M. (2017), Strategic Alpine Space Areas for Cross-regional Cooperation, DOI: 10.23776/001

## 6. RECOMMENDATIONS

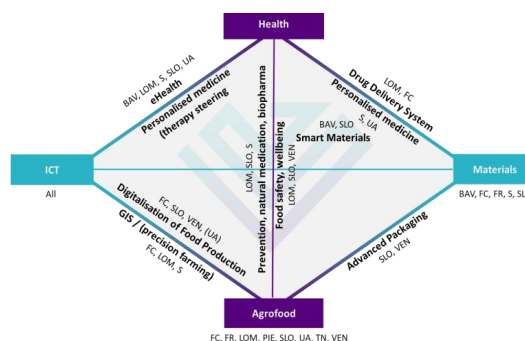
The study provided valuable insights on the current status of Bioeconomy support schemes (notably S3) in the EUSALP region. It also highlighted the existing funding gap as well as ways in which trans-national support schemes can work. It further confirmed the need for more need-based cross-regional cooperation. On one hand, cross-regional cooperation within the EUSALP region is not properly supported by policies and programmes. On the other hand it is critical to the development of the bioeconomy, especially the "bioeconomisation" of sectors with high relevance for EUSALP.

The findings have shown that such cross-regional cooperation can be stimulated and facilitated by a "Synchronised" or "Joint Call" scheme. Consequently, the following recommendations focus on dedicated actions relating to how to best implement such Schemes within the EUSALP regions.

**Recommendation 1:** For a sustainable Synchronised or Joint Call scheme, a **multilevel systemic approach** is crucial. It encompasses the formulation of concrete opportunities by engagement of actors in stakeholder circles at the regional and cross-regional level. It also requires the formulation of an Action Plan that aligns and focuses on future R&D and innovation activities, cross-border collaboration. It furthermore tackles topics like raising awareness of customer markets and improving education. Transformative activities that lead to the bioeconomisation of industries are in focus since they proved to have a potential to be at the forefront of managing structural change required for reaching sustainability. The multilevel systemic approach shall also assure a critical mass of actors to be addressed when implementing related Synchronised or Joint Call schemes.

**Recommendation 2: Synchronised or Joint Calls** shall target dynamic areas with significant transformative impact on the Bioeconomisation of existing industries (Figure 12) e.g. Transformative Activities. Evidences suggested that EUSALP regions have a unique opportunity to explore opportunities emerging from transformative activities between sectors / industries related to Materials, Agri-food, Health and ICT. These industries are of particular importance for most EUSALP regions, but also of high relevance of the overall EUSALP macro-strategy. Scaling up require cross regional cooperation.

*Figure 102 Synchronized Funding Scheme and position of the call(s)*



*Source: Strategic Alpine Space Areas for Cross-regional Cooperation<sup>38</sup>, modified by author*

**Recommendation 3:** Launching of a **consultation process on the Transformative Activities for Bioeconomisation of EUSALP industries and clusters** to be supported, including possible budgets and date of availability. Preparatory workshops involving regions and actors interested in the Synchronised or Joint Call can help to share the logic of the transformative activities. They can also pave the way to the policy level for commitment and identification of capacity-related obstacles. They can also help address the key regulatory constraints to be resolved. Actors ready to design and implement a Synchronised or Joint Call scheme can be encouraged to present concrete ideas.



**Recommendation 4: Promotion of the idea of a Synchronized Call or Joint Call** and sharing lessons learned of projects on targeted emergence of new value chains related to Bioeconomy among actors at different levels (e.g. policy, intermediaries, SMEs and firms, among others). Experiences made within the ERA-NET schemes can provide valuable input. This can help to provide a better understanding of regional policy makers about added values of transregional cooperation and how to operationalize through Synchronised or Joint Call Schemes. The current considerations concerning the next ESIF period shall also regard Synchronised or Joint Call schemes.

**Recommendation 5:** The way to set up a Synchronized or Joint Call scheme, regardless of what precise modality will finally be selected (Virtual Pot or Common Pot), shall be divided into several phases. Ideally, such a Call is embedded within a multi-regional cooperation and governance structure. It is noted that setting up such a governance structure as well as the funding scheme is a new step-by-step approach (process) that requires strong commitments. It also demands flexibility from the partner regions, and the involvement of ministries as programme owners and regional funding agencies as implementation agencies. The roles of each actor must be well defined in a participative way. Appendix 3 provides detailed information on key steps to set up the call.

**Recommendation 6:** Launch cross-regional pilot projects to gain experience in implementation. Close monitoring of these activities helps to demonstrate what works and what not. There is not much experience with cross-regional support schemes in the Alpine Regions and it is unrealistic to expect that all Alpine Regions will join at the same time.

## ANNEX 1: SURVEY SMART SPECIALISATION STRATEGIES (S3) OF EUSALP REGIONS FOCUS ON BIOECONOMY OR RELATED SUB-SECTORS

Country	Region	Bioeconomy as Priority Areas under S3	S3 focus on dedicated sub-sectors			Dedicated regional strategy related to Bioeconomy
			Agrifood	Wood	Bio-based Industries	
Germany	Bavaria	No	No	No	No	No
Germany	Baden-Württemberg	No	No	No	No	Under development, available from 2019
Austria	Vorarlberg	No	No	No	No	No
Austria	Tyrol	No	No	Manufacture of wood and of products of wood	No	No
Austria	Carinthia	No	No	No	No	No
Austria	Styria	No	Food quality and safety; improved analytics	Eco-Technologies for improved wooden-based products / houses	No	No
Austria	Vienna	No	No	No	No	No
Austria	Burgenland	No	Production Food and Beverages	No	No	No
Austria	Lower Austria	Yes	Food and nutrition ingredients; plants and pesticide development; food safety	No	Better use of bio-resources; support bio-diversity	No
Austria	Upper Austria	No	Food and nutrition ingredients; food safety and quality	No	No	No
Austria	Salzburg	No	No	Eco-Construction / Smart Alpine Building	No	No
Italy	Autonomous Province Bolzano	No	Smart packaging, food quality and security; support food supply chain	Eco-Construction; sustainable use of wood	No	No
Italy	Autonomous Province of Trento	No	Food and nutrition; food security and traceability, functional food, agricultural machines	No	No	No

<b>Italy</b>	Friuli-Venezia Giulia	No	Sustainable food production; smart packaging	No	No	No
<b>Italy</b>	Veneto	No	Smart Sensor Agri-food (incl. Smart packaging); food and nutrition ingredients	No	No	No
<b>Italy</b>	Lombardy	No	Sustainable food production; food safety and quality; functional / healthy food; support food supply chain;	No	Creation of Bio-refineries; support of Bio-based product development and related commercialization; networking for Bioeconomisation of other sectors	Under development, available in 2019; strong links to National Bioeconomy Strategy BIT
<b>Italy</b>	Piedmont	No	Traceability, Smart packaging; Smart farming	No	Yes	No
<b>Italy</b>	Liguria	No	No	No	No	No
<b>Italy</b>	Valle d'Aosta	No	No	No	No	No
<b>France</b>	Auvergne- Rhone-Alpes	No	No	No	No	No
<b>France</b>	Provence-Alpes-Cote d'Azur	No	Food and nutrition; food safety and quality; functional food	No	No	No
<b>France</b>	France-Comte	No	Sustainable food production; food quality and safety	No	No	No
<b>France</b>	Alsace	No	Healthy food, Smart Sensor Agri-food	No	No	No
<b>Switzerland</b>	Region Lemanique	N.A	N.A	N.A	N.A.	N.A
<b>Switzerland</b>	Ticino	N.A	N.A	N.A	N.A.	N.A
<b>Switzerland</b>	Ostschweiz	N.A	N.A	N.A	N.A.	N.A
<b>Switzerland</b>	Zentralschweiz					
<b>Switzerland</b>	Espace Mittelland	No	N.A.	N.A.	No	No
<b>Switzerland</b>	Nordwest-Schweiz	N.A	N.A	N.A	N.A.	N.A

<b>Switzerland</b>	Zürich	N.A	N.A	N.A	N.A.	N.A
<b>Lichtenstein</b>	Lichtenstein					
<b>Slovenia</b>	Slovenia	yes	Sustainable Food Production. Food safety and quality; optimization of food supply chain; Smart farming, traceability	Smart building and Eco-Construction; ICT for Smart Living	Sustainable Biomass transformation; networking to stimulate transition to Circular Economy; development of new Bio-based materials, better use / re-use of waste	No

## ANNEX 2: GOOD PRACTICE EXAMPLE OF SYNCHRONIZED CALL



(<http://www.bsr-stars.eu/>)

Home (<http://www.bsr-stars.eu/>) > Innovation Express (<http://www.bsr-stars.eu/innovation-express/>) > 2017 Innovation Express Call Info

### NEWS

#### 2017 Innovation Express Call Info

Looking back at 2017

date 02.06.2017



#### Overview

*What is Innovation Express?*

Innovation Express – a common European approach for supporting the internationalisation of SMEs through cluster initiatives.

The funding instrument aimed at facilitating internationalisation, smart specialisation, and cross-border learning and competence development by developing transnational linkages between SME networks, clusters and other specialised research and innovation nodes – for the benefit of their members.

Innovation Express represents a joint call for proposals implemented within the framework of the BSR Stars programme – a flagship of the EU Strategy for the Baltic Sea Region which fosters macro-regional smart specialisation. The call is funded by national/regional funding agencies to initiate, develop or enhance transnational cooperation activities – leveraging cluster organisations (or similar) to develop proposals for their SME members.

Applications were evaluated based on their potential to create benefits for participating cluster initiatives and companies, along with criteria from regional/national funding organisations.

#### *Scope and opening of the call*

Innovation Express partners (see “funding, cooperation and extended partners for Innovation Express” below) supported proposals submitted by groups of SMEs and/or cluster governances located in their geographical area and addressing transnational cooperation activities that benefit their SME members.

A broad variety of innovation activities, including technology/knowledge transfer, training, feasibility studies, strategic analysis and mutual benchmarking are supported, as well as many different stages of international cooperation (from initial contact and networking through to the final set up of a long-term innovation project). Within the framework of BSR Stars, there is a particular focus on supporting linkages between clusters with complementary fields of expertise (cross-sectoral) in order to tackle shared challenges or pursue international market opportunities through collaborative efforts. A further particular focus in the 2017 call is supporting linkages between clusters with a comprehensive attention towards sustainability (environmental or social).



Please refer to the table of supported innovation activities for each funding partner (below), and get in touch with the relevant contact person for more detailed information.

	FUNDING PARTNERS	SUPPORTED INNOVATION ACTIVITIES	CONTACTS
Denmark	Danish Agency for Institutions and Educational Grants <a href="http://www.ufm.dk">www.ufm.dk</a> ( <a href="http://www.fi.dk/">http://www.fi.dk/</a> )	A B C D E F G H	Mr. Hans Henrik Lomholt <a href="mailto:hhl@ufm.dk">hhl@ufm.dk</a> ( <a href="mailto:hhl@ufm.dk">mailto:hhl@ufm.dk</a> )
Lithuania	Agency for Science, Innovation and Technology <a href="http://www.mita.lt">www.mita.lt</a> ( <a href="http://www.mita.lt/">http://www.mita.lt/</a> )	A B D E F G	Ms. Daiva Kersiene@mita.lt <a href="mailto:daiva.kersiene@mita.lt">daiva.kersiene@mita.lt</a> ( <a href="mailto:daiva.kersiene@mita.lt">mailto:daiva.kersiene@mita.lt</a> )
Norway	Innovation Norway <a href="http://www.innovasjon Norge.no">www.innovasjon Norge.no</a> ( <a href="http://www.innovasjon Norge.no/">http://www.innovasjon Norge.no/</a> )	A B C D E F G H	Mr. Hans Eirik Melandsø <a href="mailto:hans.eirik.melandso@innovationnorge.no">hans.eirik.melandso@innovationnorge.no</a> ( <a href="mailto:hans.eirik.melandso@innovationnorge.no">mailto:hans.eirik.melandso@innovationnorge.no</a> )
Sweden	Swedish Agency for Economic and Regional Growth <a href="http://www.tillvaxtverket.se">www.tillvaxtverket.se</a> ( <a href="http://www.tillvaxtverket.se/">http://www.tillvaxtverket.se/</a> )	A B C D E F G H (special focus on "the 6 constellations")	Ms. Ewa Andersson <a href="mailto:ewa.andersson@tillvaxtverket.se">ewa.andersson@tillvaxtverket.se</a> ( <a href="mailto:ewa.andersson@tillvaxtverket.se">mailto:ewa.andersson@tillvaxtverket.se</a> )
	Swedish Agency for Marine and Water Management <a href="http://www.havochvatten.se">www.havochvatten.se</a> ( <a href="http://www.havochvatten.se/">http://www.havochvatten.se/</a> )		Ms. Charlotta Stadig <a href="mailto:charlotta.stadig@havochvatten.se">charlotta.stadig@havochvatten.se</a> ( <a href="mailto:charlotta.stadig@havochvatten.se">mailto:charlotta.stadig@havochvatten.se</a> )
	COOPERATION and EXTENDED PARTNERS	SUPPORTED INNOVATION ACTIVITIES	CONTACTS
Germany	Ministry of Economic Affairs, Labour and Housing (Baden-Württemberg)	A B C D E F G H	Ms. Andrea Krueger <a href="mailto:andrea.krueger@mfw.bwl.de">andrea.krueger@mfw.bwl.de</a> ( <a href="mailto:andrea.krueger@mfw.bwl.de">mailto:andrea.krueger@mfw.bwl.de</a> )
Catalonia	ACCIÓ <a href="http://www.accio.gencat.cat">www.accio.gencat.cat</a> ( <a href="http://www.accio.gencat.cat/">http://www.accio.gencat.cat/</a> )	A B C F H	Ms. Emma Vendrell <a href="mailto:emma.vendrell@gencat.cat">emma.vendrell@gencat.cat</a> ( <a href="mailto:emma.vendrell@gencat.cat">mailto:emma.vendrell@gencat.cat</a> )

*A: Workshops and study trips*

*B: Networking and speed-dating activities*

*C: Market research activities*

*D: Technology/knowledge transfer*

*E: Recruitment/training/education*

*F: Cross-sectorial inter-cluster activities*

*G: Feasibility studies and piloting prior to RDI projects*

*H: Inter-cluster strategy development activities*

Targeted cluster initiatives or SME networks can be located within the Baltic Sea Region, or elsewhere within or outside Europe. All activity sectors are eligible. However, Sweden has a particular focus on “the 6 constellations” (see more in the documents section below).

Submission of proposals possible from 2 June – 31 October 2017.

## Application process

### *Targeted beneficiaries and eligibility criteria*

Innovation Express targets groups of SMEs and/or cluster initiatives and their partners (e.g. technology providers, large companies, universities, research centres, etc.). With their proximity to firms, cluster organisations (or similar) are considered as an effective vehicle for involving SMEs which have more difficulties to develop international cooperation. They can also help them identify relevant partners to initiate trust-building processes and generate market impact.

Eligible applicants are SME networks or cluster governances located within a geographical area where an Innovation Express funding or extended partner is present (see funding and extended partners below). Proposals must be submitted by the representative of the SME network/cluster initiative for the benefit of its SME members – in accordance with them and driven by their internationalisation needs.

### Eligibility criteria:

- The applicant is a legal entity representing an SME network, cluster initiative or other specialised research and innovation environment.
- The applicant is located in a geographical area where an Innovation Express funding or extended partner is present.
- Proposed activities must include the participation of at least 3 SMEs. (The participation of even more SMEs is strongly recommended. Participation of large companies, company associations, universities, research organisations, and other public organisations is encouraged; however these cannot be the sole beneficiaries.)
- Applications must target another cluster initiative or SME consortia in at least one other country (within the BSR or elsewhere internationally).
- Other eligibility criteria may be defined directly by the funding organisations.

### *Special, local requirements:*

Sweden: Specific, Swedish requirements, I/II ([http://www.bsr-stars.eu/wp-content/uploads/2017/06/IE\\_SE\\_Utlysningstext-2017-0602.pdf](http://www.bsr-stars.eu/wp-content/uploads/2017/06/IE_SE_Utlysningstext-2017-0602.pdf)) (pdf), On Cross Clustering – Special, Swedish Requirements, II/II ([http://www.bsr-stars.eu/wp-content/uploads/2017/06/SE2017\\_cross-clustering-projects-EA-0602.pdf](http://www.bsr-stars.eu/wp-content/uploads/2017/06/SE2017_cross-clustering-projects-EA-0602.pdf)) (pdf)

Denmark: DK special requirements (pdf) ([http://www.bsr-stars.eu/wp-content/uploads/2017/06/DK-special-requirements\\_IE2017\\_final.pdf](http://www.bsr-stars.eu/wp-content/uploads/2017/06/DK-special-requirements_IE2017_final.pdf))

### *Application via joint online application portal*

Application forms (in word format) can be accessed in the Document Overview (<http://www.bsr-stars.eu/documents/>) the BSR Stars homepage (<http://www.bsr-stars.eu/innovation-express/>) for preparatory purposes.

Proposals must be in line with the supported innovation activities and other guidelines outlined by the funding agency in the applicant's geography (to be found on funding agency's own website). It is required that applicants contact their local BSR Innovation Express contact person (see above) in order to be informed about funding conditions.

Application forms were to be completed in English via **an online application portal** (<http://ansokan.3ddata.se/start/bsr.asp>). by **31 October, 2017** at the latest.

Completion and submission of additional forms was required (according to guidelines defined by Innovation Express funding/extended partners).

#### *Funding, cooperation and extended partners for the 2017 Innovation Express*

- LT: Agency for Science, Innovation and Technology (MITA)
- NO: Innovation Norway
- SE: Swedish Agency for Economic and Regional Growth (Tillväxtverket), Swedish Agency for Marine and Water Management (HoV)
- Baden-Württemberg, DE: Ministry of Economic Affairs, Labour and Housing
- Catalonia, ES: ACCIÓ, Government of Catalonia
- DK: Danish Agency for Institutions and Educational Grants

#### *Funding process*

All proposals are expected to provide:

- Clarity and relevance of the content of the transnational cooperation activities (action plan)
- Added value and benefits for cluster/network initiatives and SME members involved
- Identification of clear outputs/deliverables or expected results
- For repeat applicants, description of the development of the partnership and motivation for continued/more ambitious activities – including how will build on previous results The funding decision (i.e. the level of funding and the costs covered) will be made dependent on the scope of the proposal (kind of activities, partners involved, etc.) and on the guidelines of the relevant national/regional funding agency. All usual national or regional programme rules apply. The amount of money granted from funding partners will depend on the national/regional schemes used. It is expected that the amount granted will be 10- 60.000 EUR per approved project per country. *Contact points across the BSR*
- In addition to the funding partners (listed above), other regional and national organisations are involved as associated partners in the Innovation Express call. Both funding and associated partners agree to serve as a source of information regarding cluster initiatives in their geography (e.g. which exist, their areas of specialisation, their desired areas of collaboration, contact names, etc.), and will help to “open doors” and facilitate initial contacts between cluster initiatives.

#### **Finding partners**

Funding decisions were communicated **mid December 2017**.

Funding decisions were made by regional/national funding agencies and communicated/registered in the common database.

All submitted proposals were registered in a common database and distributed to the relevant funding agency.

#### **ASSOCIATED PARTNERS**

Innovation Center Iceland  
Iceland [www.nmi.is](http://www.nmi.is)  
(<http://www.nmi.is/>)



Ministry of Economic Affairs and Communications  
Estonia [www.mkm.ee](http://www.mkm.ee)  
(<http://www.mkm.ee/>)



Ministry of Employment and the Economy  
Finland [www.tem.fi](http://www.tem.fi)  
(<http://www.tem.fi/>)



German Cluster Excellence

#### **CONTACTS**

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#### *Matchmaking event in Stuttgart 20-21 September 2017*

In connection with the BSR Stars Innovation Express call, a Cluster Matchmaking Conference (<https://www.b2match.eu/cluster-matchmaking-2017>) was hosted by the Baden Württemberg Ministry of Economic Affairs, Labour and Housing, targeted at cluster organisations and SME networks wishing to explore opportunities for international collaboration on behalf of their members. The programme focused on cluster to cluster matchmaking, workshops and other opportunities to establish cooperation. The matchmaking event was organised in close collaboration with Cluster Excellence Denmark.

Conference invitation: 5th C-2-C Matchmaking Conference Invitation flyer ([http://www.bsr-stars.eu/wp-content/uploads/2017/06/Cluster\\_matchmaking2017\\_invitation\\_flyer.pdf](http://www.bsr-stars.eu/wp-content/uploads/2017/06/Cluster_matchmaking2017_invitation_flyer.pdf))

#### *Additional resources*

- Searching for cluster organisations on the European Cluster Collaboration Platform (<http://www.clustercollaboration.eu/>)
- Contacting EEN representatives (<http://portal.enterprise-europe-network.ec.europa.eu/about/branches>) in targeted regions/countries

Contacting Eureka representatives (<http://www.eurekanetwork.org/in-your-country>) in your home country

#### **Additional information**

For more information about the Innovation Express Instrument, you are welcome to contact Hans Henrik Lomholt (hhl@ufm.dk (mailto:hhl@ufm.dk)) at the Danish Agency for Institutions and Educational Grants, coordinating project manager of the BSR Stars Innovation Express in 2016 and 2017.

## ANNEX 3: KEY STEPS TO SET UP A SYNCHRONISED / JOINT CALL

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The Consultation process and preparatory phase of a Synchronized Call is firstly characterized by the Selection of topics (definition of scope; including possible budget and date of availability). Experience has shown that, in that stage, it is important to organize a preparatory workshop with the following objectives:

- Finalize the selection of topics (scope)
- Assure high commitment by policy level
- Define the budget contributions of all partners to assure well balanced distribution in case of applying a virtual pot approach;
- Discuss and finalize the Cooperation Agreement or similar arrangement through which all funding parties will confirm that they fulfil the intentions expressed in the Joint Call as well as in the financial framework;
- Discuss and finalize the Terms of Reference and the call documents. These are: Call announcement text, Guidelines for applicants, Guidelines for evaluators.

The Cooperation Agreement or a separate document of commitment should be also defined, describing all the administrative issues.

- Call topics
- Funding:
  - Minimum number of Funding Parties
  - Maximum number of projects intended to be funded
  - Type of funding scheme
  - Definition of eligible costs that can be funded (equipment, personnel, travelling, events etc.)
- Funding agreement
  - Eligibility and evaluation
  - Eligibility criteria (formal criteria) and evaluation criteria (scientific excellence, impact and expected outcomes, scoring system etc.)
- Evaluation and decision making procedures
  - Nomination of evaluators
- Application process (1-step or 2-step process)
- Submission Process

Organize a Call secretariat: who will handle the proposal management and the evaluation process, building on a pool of independent, international peer reviewers. The Call will be supported in all stages by the consortium. In addition to the call secretariat, each partner will nominate contact persons that serve as interface at the regional level between the applicants and the application process, including the eligibility and evaluation criteria and the funding modalities.

- Key elements of the management of funds and reporting.



**Additional documents to be prepared for the Joint Call are:**

- Joint Call Text,
- Guide for applicants,
- FAQ
- Proposal form,
- Regional contact point list,
- Regional regulations (embedding the contact point list),
- Guidelines for evaluators written for the experts who will evaluate the projects.

**Other tools to be prepared are:**

Call webpage (usually on the project website) with a reference of contact person per country and link, budget (total, then each region set its own budget),

The Call text is the most relevant document since it sets the framework and funding conditions. The following structure of the Call document is recommended:

- Introduction
- What the Call about
- Scope
- Application Process
  - o Targeted beneficiaries
  - o Eligibility criteria
  - o Selection procedure and criteria
- Coordinating Body
- Hotline / contact