

Cross-clustering partnership for boosting eco-innovation by developing a joint bio-based value-added network for the Danube Region

interreg-danube.eu/danubiovalnet

WP4 Strategy & Policy Actions

Activity 4.1 Development of Joint Bio-Based Industry Cluster Policy Strategy (JBCS) incl. StressTest Tool

D 4.1.2 Policy Benchmarking reports for participating countries and one synthesis report

Proposal for Alignment of National & EU Funding Schemes

Policy Benchmarking Report

June 2019

Gregor Švajger, Michael Keller



Project co-funded by European Union funds (ERDF, IPA).



This report was produced within the frame of the DanuBioValNet project (Deliverable 4.1.2 Policy Benchmarking Report), co-funded by European Union funds (ERDF, IPA) through INTERREG Danube Transnational Programme. It was prepared by Gregor Švajger (MIZS) and Michael Keller.

Disclaimer

The information and perspectives set out in this Report are those of the authors and do not necessarily reflect the official opinion of the European Commission or the project partners' regions. Neither the European Commission institutions and bodies nor any person acting on their behalf may be held responsible for the use that may be made of the information contained therein. Reproduction is authorised, provided the source is acknowledged unless otherwise stated. For use/reproduction of third party material specified as such, permission must be obtained from the copyright.

For further information about the DanuBioValNet project, you will find a short description in the document. To learn more and to download additional resources please refer to the project website http://www.interreg-danube.eu/approved-projects/danubiovalnet.

The information is provided without assuming any legal responsibility for correctness or completeness. The data presented in the report are based on the information given by the project partners.

© DanuBioValNet, June 2019



TABLE OF CONTENTS

INTRODUCTION OF THE DANUBIOVALNET PROJECT	4
LIST OF ABBREVIATIONS	
GLOSSARY	7
INTRODUCTION	9
FUNDING GAP	15
CHARACTERISTICS OF EXISTING SUPPORT SCHEME	13
POSSIBLE APPROACHES AND GENERAL RECOMMENDATION	16
TABLE OF FIGURES	
FIGURE 1: THE FUNDING GAP FOR CROSS-REGIONAL COOPERATION WITHIN I	DANUBE (NUMBER OF
DIFFERENT DANLIBE REGIONS ARI F TO COOPERATE)	15



Introduction of the DanuBioValNet project

The DanuBioValNet project is aiming at establishing bio-based industry networks across the Danube Region. The emerging transnational cooperation of clusters will foster bioeconomy and ecoinnovations and lead to a strengthening of the regional economies.

Consequently, with this project the partners pursue a strong strategic orientation beyond the immediate and medium-term economic objective of strengthening the regional economy. It is the strategic goal to establish cross-border strategic partnerships, particularly in developing regions, with the help of powerful cluster organisations. In this way, project results will be sustained beyond an immediate effect and the creation of strategic investments, especially in emerging industries such as the bio-industry, will be enabled and facilitated. This will be achieved mainly by newly emerging or transforming value-added chains, which are increasingly being transnationally established and further developed as a result of the increasing internationalisation of value-added processes.

In this way, long-term economic effects are achieved, based on a network of agile clusters, which prepare the investment approaches in a targeted manner and implement them with high efficiency. One example of the present project is the establishment of bio-refineries in the regions, which can form a strategic technological backbone of a successful independent bio-industry.

The partners intend to develop and implement a long-term, industry-driven roadmap for such collaboration along the entire value chain based on cluster partnerships for these processes. With the project, a pilot function of the implementation is taken over and the prerequisite for creating a blueprint for similar and similar cross-national cooperation, also in other industries, is created.

For achieving these tasks, 17 project partners from 10 countries have joined forces. The project will pave the way from an economy based on fossil resources towards an economy using renewable resources. The striving of the partners to minimise greenhouse gases and resource-saving as well as resource-efficient utilisation of available biomass will result in synergistic effects. These effects will improve the sustainability, regional development through diversification of the local economy and will also positively affect the workforce. The development of new bio-based value chains from primary production to consumer markets needs to be done by connecting enterprises from different regions and industries. But due to a missing holistic transnational approach, Danube actors in bio-based industry still operate disconnected and cannot properly benefit from the potential. Therefore, the aim of this project is to develop new methods, strategies and tools to connect enterprises transnationally.

Clusters as the strong representatives of a group of industries that are closely linked by common products, markets, technologies and interests are chosen to organise and bear the industry cooperation and creation of new value chains, because they are performant and sustainable partners and guarantee the upgradeability in the dimension industry, sciences and also politics.

One of the planned outputs of this project will be the development of a Joint Bio-based Industry Cluster Policy Strategy (JBCS) to describe the procedure and to make it actionable and reusable. Furthermore, a bundle of new methods and tools to support clusters for transnational working will be developed and joint into a strategy. They will be tested in three pilot actions where it is planned to create new bio-based value chains in the Danube Region.

The main target groups are on the one hand the policy – four Ministries are involved –, on the other hand clusters and their SMEs – nine cluster organisations are involved. The policy level will benefit from the JBCS, which can be used as a political framework.



The clusters and SMEs will benefit from the new innovative tools and methods developed for transnational cross-clustering. Successfully established new bio-based value chains in the pilot actions can motivate other clusters and SMEs to test this newly developed approach in the future.

The following partners commit to the implementation of the cluster partnership and transnational cooperation:

Role	Official Name in English	Acronym	Country
LP	BIOPRO Baden-Württemberg GmbH	BIOPRO	Germany
ERDF PP1	Cluster Agentur Baden-Württemberg	CABW	Germany
ERDF PP2	Anteja ECG	ANT	Slovenia
ERDF PP3	PROUNION	PU	Slovakia
ERDF PP4	Romanian Cluster Association	CLUSTERO	Romania
ERDF PP5	Association of Business Clusters	ABC	Bulgaria
ERDF PP6	National Cluster Association – CZ	NCA	Czech Republic
ERDF PP7	Business Upper Austria – OÖ Wirtschaftsagentur GmbH -	UAFC	Austria
	Upper Austrian Food Cluster		
ERDF PP8	Ministry of Economy	ME	Romania
ERDF PP9	Ministry of Economy, Entrepreneurship and Crafts	MEEC	Croatia
ERDF PP10	Ministry of Education, Science and Sport	MIZS	Slovenia
ERDF PP11	Croatian Wood Cluster	CWC	Croatia
ERDF PP12	Institute for Economic Forecasting	IPE	Romania
ERDF PP13	Business Upper Austria – OÖ Wirtschaftsagentur GmbH –	BizUp	Austria
	Cleantech-Cluster		
IPA PP1	Innovation Center of Faculty of Mechanical Engineering	ICME	Serbia
ASP1	Montenegro Vine Cluster	MVC	Montenegro
ASP2	Ministry of Economic Affairs, Labour and Housing Baden-	WM	Germany
	Württemberg		

LP = Lead Partner, PP = Project Partner, IPA = Instrument for Pre-Accession, ASP = Associated Strategic Partner, ERDF = European Regional Development Fund



List of abbreviations

ASP Associated Strategic Partner

BSC Balanced Scorecard System

EC European Commission

EIP European Innovation Partnerships

ERDF European Regional Development Fund

EU European Union

EUR Euro

Fig. Figure

FTE full-time equivalent

i.e. that is (Latin: id est)

ISO International Organization for Standardization

IPA Instrument for Pre-Accession

JBCS Joint Bio-based Industry Cluster Policy Strategy

LP Lead Partner

OPCC Operational Programme Competitiveness and Cohesion

p. page

PP Project Partner

R&D Research and Development

RDI Research, Development and Innovation

RIS Regional Innovation Strategy

SME Small and Medium Enterprise

SRIP Strategic Research and Innovation Platform

S3 Smart Specialisation Strategy



Glossary

Bioeconomy

Bioeconomy is the production of renewable biological resources and the conversion of these resources and waste streams into value added products, such as food, feed, bio-based products and bioenergy. Its sectors and industries have strong innovation potential due to their use of a wide range of sciences, enabling and industrial technologies, along with local and tacit knowledge. (Source: European Commission (2012). Innovating for Sustainable Growth: A Bioeconomy for Europe, p. 3)

Cluster

Clusters are geographic concentration of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (for example, universities, standards agencies, and trade associations) in particular fields that compete but also cooperate. (Source: M. Porter (1998). On Competition, Updated and Expanded Edition. Harvard Business Review Book, p. 213)

Cluster initiative

Cluster initiatives are organised effort to increase the growth and competitiveness of a cluster within a region, involving cluster firms, government and/or the research community. (Source: Ö. Sölvell, G. Lindqvist and Ch. Ketels (2003). *The Cluster Initiative Greenbook*, p. 9)

Cluster organisation

By a cluster organisation one should understand organised efforts to facilitate cluster development, which can take various forms, ranging from non-profit associations, through public agencies to companies. (Source: PricewaterhouseCoopers (2011). *Uncovering excellence in cluster management*, p. 6) Cluster management can be defined as the organisation and coordination of the activities of a cluster in accordance with certain strategy, in order to achieve clearly defined objectives. (Source: PricewaterhouseCoopers (2011). *Uncovering excellence in cluster management*, p. 3)

Cluster participants

Cluster participants are representative's industry, academia or other intermediaries, who are commonly engaged in a cluster initiative. Given the case a cluster initiative has a certain legal form, like association, cluster participants are often called cluster members.

Cluster Policy

Cluster policy is an expression of political commitment, composed of a set of specific government policy interventions that aim to strengthen existing clusters and/or facilitate the emergence of new ones. Cluster policy is to be seen as a framework policy that opens the way for the bottom-up dynamics seen in clusters and cluster initiatives. This differs from the approach taken by traditional industrial policies which try (and most often fail) to create or back winners. (Source: European Commission (2016). Smart Guide to Cluster Policy, Guidebook Series: How to support SME Policy from Structural Funds, p. 11).

Eco-innovation

Eco-innovation aiming at significant and demonstrable progress towards the goal of sustainable development. Eco-innovation projects will therefore aim to produce quality products with less environmental impact, whilst innovation can also include moving towards more environmentally friendly production processes and services. Ultimately, they will contribute towards the reduction of greenhouse gases or the more efficient use of various resources. (Source: European Commission (2015). Eco-innovation, When business meets the environment. FAQ: What is Eco-Innovation? Online).



Programme

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

Smart Specialisation Strategies – S3

Smart Specialisation 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, high-tech or low-tech. (Source: Foray (2015). Smart Specialisation, Opportunities and Challenges for Regional Innovation Policy, Routledge).

Value Chain

The value chain describes the full range of activities that firms and workers do to bring a product from its conception to its end use and beyond. A value chain refers to the full lifecycle of a product or process, including material sourcing, production, consumption and disposal/recycling processes. This also includes activities such as design, production, marketing, distribution and support to the final consumer. (Source: University of Cambridge (2017). What is a value chain? Definitions and characteristics. Online).



Introduction

The analysis conducted within the DanuBioValNet project revealed a quasi-total absence of cross-regional cooperation to exploit synergy potentials within the Danube Region in terms of bio-based value chains. Indeed, the business environments and framework conditions for cross-regional cooperation tend to be weak, poorly aligned between regions and completely lacking focus on need-based cluster cooperation. While all regions in the project dispose of regional funding schemes and some cross-regional funding schemes exist at European level, a funding gap is identified for focused cross-regional cooperation on dedicated programmes. The first section of this document gives a short overview of regional funding schemes relevant for the bioeconomy in the participating regions. The second section presents available funding instruments at the cross-regional level, the third section identifies the funding gap, and the third section develops the recommendation to foster cross-regional cluster cooperation across the Danube regions through a synchronized call scheme.

Regional Schemes

Detailed information on available national and regional funding instruments is presented in a series of regional benchmark reports available in the DanuBioValNet Library. Some funding schemes were identified as particularly relevant for the three exemplary value chains of the DanuBioValNet project, namely Phytopharma, Eco-Construction and Bio-based Packaging. As the only countries in the project with a bioeconomy strategy in place, Germany and Austria have funding schemes specifically focusing on the bioeconomy and are thus presented first.

In Baden-Württemberg, researchers, research institutes, companies, networks, cluster initiatives and others have the possibility to apply to funding schemes on federal level as well as on state level. This includes funding schemes that are directly aimed at bioeconomy as well as funding schemes that support one or various sectors of the bio-based industry. At the national level specific calls dedicated to bioeconomy exist within the National Research Strategy BioEconomy 2030. The main topic is the structural change and transition from a fossil resource-based economy towards a bio-based economy, including among others: sustainable food production, bio-based energy, renewable bio-based material for materials, but funded project includes also in a broader sense societal, political and economic challenges.

Several other funding schemes that are not specifically dedicated to bioeconomy but are integral part of a bio-based economy complement the offer at national level:

Under the authority of the Federal Ministry of Education and Research (BMBF) calls are also funded through the programme "From Materials to Innovation". Material platforms, material innovation, sustainable and efficient resource use as well as cooperation projects between SME and Research along the value chain are central

¹ DanuBioValNet Library: http://www.interreg-danube.eu/approved-projects/danubiovalnet/outputs.



- part of the programme. Its aim is development of new materials for a diverse range of products. Technologies along the whole value chain are being funded.
- The Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMU) supports applied research in the construction sector in order to increase competitiveness and sustainability in the European perspective) through the research programme "Future Building. The initiative consists of three parts: research projects, contract research and funding programme for model projects.
- Funding is provided by the Federal Ministry for Agriculture and Food (BMEL) for Pilot and Demonstration Projects for Biodiversity, Plant Production and Animal Welfare and aiming at topics about biodiversity, plant production (including specialty crops) and animal welfare. New techniques or processes should be tested, that are not yet commonly used.
- The same Ministry provides *Innovation funding for the food, agricultural and consumer protection.* Technical and non-technical sustainable innovations are supported by this programme. Competitiveness and economic innovation capacity shall be strengthened. Funding is prioritized for research, development and demonstration projects in the respective fields.
- Within the FONA3-Framework Programme, which started in 2015, the Federal Ministry of Education and Research (BMBF) supports Research for Sustainable Development. Among others, the Green Economy, Future Cities and Energy Transition are part of the programme (Studies, Innovative Applications, Moderation of Stakeholder are funded).
- The Framework Programme Health Research is funded between by the same Ministry and aims at developing new or improved diagnostic methods, therapies, and prevention of disease.
- The Federal Ministry for Food and Agriculture (BMEL) supports research and development approaches as well as demonstration projects for *Renewable Raw Materials*. Funding aims at product development from native renewable resources for material and energy. Resource efficiency, environmental sustainability and increasing competitiveness in forestry and agriculture and related sectors are further topics.
- The same Ministry has a funding programme for *organic farming and other types of* sustainable agriculture (BÖLN). Funding is aimed at fostering the transition towards organic farming and sustainable agricultural practice.
- Finally, the German Federal Environmental Foundation funds projects covering topics including, among others, eco-construction, innovative materials technology and nature conservation and sustainable resource use in agricultural used areas and conservation sites.

At the regional level, the Ministry of Rural Affairs and Consumer Protection Baden-Württemberg provides funding for regional or European innovation partnerships for



agricultural (and forestry) productivity and sustainability through the *European Innovation Partnerships (EIP) – Agricultural Productivity and Sustainability (Agri).* The same Ministry is also providing funding for *Sustainable Forestry*.

Austria has funding schemes available both at the national and the regional level. At the national level the Qualifizierungsseminar targets companies with low technological competence to facilitate the start in new technologies. Eligible project need to include at least one university and at least five small or medium-sized companies. The funding scheme includes eco-construction, phytopharma and advanced packaging. Priority and strategic areas are food science, material and production, environment and energy. For the same areas, the program Qualifizierungsnetz aims at higher qualification of the employees and mainly targets companies with high technological compentence. Still at the national level, the Austrian Research Promotion Agency (FFG) has a funding scheme for the Production of the future, supporting cooperative research & development projects in fields including ecoconstruction, phytopharma and advanced packaging. Finally, the Federal Ministry for Sustainability and Tourism provides funding for resource management and material use of products made from renewable raw materials within its Environmental funding programme. Special objectives are investments to achieve immediate environmental effects through the use of products based on renewable raw materials such as flax and hemp insulation, straw insulation, bioplastics, natural fiber reinforced plastics, solvent based on lactic acid, rapeseed oil as a binder in road construction, vegetable oil based paints and varnishes or vegetable oil based inks.

At the regional level, Upper Austria promotes innovative cooperation projects within the framework of its *cluster initiatives*. In particular, partners of the *Cleantech Cluster* can apply for funding for the first-time establishment of demonstration and *reference technologies* in export markets.

In the absence of bioeconomy strategies, the other countries rely on programmes that can provide funding opportunities for clusters, companies and R&D institutions, and support at least a part of the relevant value chains.

In **Bulgaria** calls are funded through:

- The Operational Programme Enterprise and Innovations for Competitiveness 2014 2020. The programme is directed at the achievement of dynamic competitive development of the economy, based on the innovations, optimization of the manufacturing chains and sectors with high added value and has two priority directions of potential relevance for the bioeconomy: entrepreneurship, export and production potential as a base for accelerated growth, and green and efficient economy as a guarantee for sustainable growth.
- R&D businesses and organizations for research and knowledge dissemination are in addition also supported through the *National Innovation Fund*.



Croatia currently supports an innovation-driven economy through:

The Operational Programme Competitiveness and Cohesion (OPCC) 2014 – 2020, which involves calls targeting six fields: Innovation Vouchers for SMEs, strengthening capacity for research, development and innovation, certification of products, Business Process Management and Quality Management (ISO and similar standards), support of development of Centres of Competence, and innovation for Start-up companies.

In the *Czech Republic* the following programmes can be identified:

- The Operational Programme Enterprise and Innovations for Competitiveness 2014–2020 (provided by the Ministry of Industry and Trade). It involves selected specific grant programmes for cluster cooperation, energy savings; real estate; renewable energy resources and low-carbon technologies.
- The Rural Development Programme 2014-2020 (provided by the Ministry of Agriculture)
- The Applied Research Program of the Ministry of Agriculture for the period 2017-2025 (provided by the Ministry of Agriculture).
- The Programmes of the Technology Agency of the Czech Republic
- The Operational Programme Environment 2014-2020 (managed by the Ministry of Environment).

In *Romania* the *National Research Development Innovation Strategy 2014 – 2020* includes as a main topic the structural change and transition from a fossil resource-based economy towards a biobased economy, including among others: sustainable food production, bio-based energy, and renewable bio-based materials.

In addition, funding is provided through:

- the National Rural Development Plan (PNDR) 2014 2020
- the Regional Operational Program (POR) 2014-2020 for funding at regional level within Romania.

In Serbia bio-based industry is mentioned in the Strategy for SME development and Action plan 2014 - 2020 and the Strategy of Scientific and Technological Development 2016-2020. Also, it is expected that bioeconomy will be the part of the Smart Specialization Strategy, which is currently under development. Different funding schemes that address horizontal issues exist on national level, all targeting individual companies, but not cluster organizations. The schemes are mainly funded through the following programmes:

- The Strategy of Scientific and Technological Development 2016-2020
- The Law on Innovation Activity

Slovakia provides funding of potential relevance for the bio-economy inter alia through the following programmes at the national level:

• De minimis aid (provided by the Ministry of Economy) to support industrial cluster organizations



- OP R&I 2014-2020
- *OP Quality of Environment 2014-2020*, focusing on the maintenance and restoration of biodiversity and eco-systems and related services outside protected areas
- Rural Development Programme of Slovak Republic

While *Slovenia* has no dedicated bioeconomy strategy, there are funding programmes and calls from different national public authorities available for clusters, companies and R&D institutions, which can in part fund activities in relevant value chains. First, calls can be funded under the *Operational Programme for the Implementation of the European Cohesion Policy in the 2014-2020 period* (Government Office for Development and European Cohesion Policy). Second, the *Slovenian Smart Specialisation Strategy - S4* is a platform for concentrating development investment on areas where Slovenia has the critical mass of knowledge, capacities and competences, and where there is innovation potential for placing Slovenia within global markets and enhancing its recognisability. Under S4 different strategic research and innovation partnerships (SRIP) were formed, with the following three offering support for relevant value chains in the bioeconoomy:

- SRIP Smart buildings and homes, including wood chain (PSiDL)
- SRIP Networks for the transition into circular economy
- SRIP Health Medicine

In addition, relevant calls are also available within the cross-border *Cooperation Programme Interreg*.

Support schemes at the European Level

The following descriptions are taken from Mateja Dermastia and Darja Osvald's preparation study for synchronizing funding in the Alpine Space²:

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.

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.

² Dermastia, M. and Osvald, D. (2018). *Study To Prepare A Synchronised Funding Scheme For Bioeconomy Development In The Alpine Region*. Interreg AlpGov.



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 be 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 cooperation³. 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.

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 agendas⁴.

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

³https://www.interreg.de/INTERREG2014/EN/Home/home_node.html;jsessionid=DD3E7D5116A276D8360A911C6A733704_live21303, accessed 26 November 2018

⁴ <u>https://ec.europa.eu/programmes/horizon2020/en/h2020-section/era-net</u>, website approached 25 November 2018



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.

Funding Gap

As shown above, there are several programmes that support actors from the Danube Region in cross-regional cooperation according to different modalities. Figure 1 groups these different modalities according to the extent to which regions can influence the scope of cross-border calls and number of different regions (and related actors) able to cooperate within projects funded under a given call (this and the following paragraphs are taken from Meier zu Köcker, G., Dermastia M., Keller M. and Bersier, J. (2018). *Proposal for a Cross-regional Scheme to Support the Development of Transformative Activities in the Alpine Space*, which did a similar analysis for the regions of the Alpine Space with results that are comparable with regards to the availability of funding instruments in the Danube region.

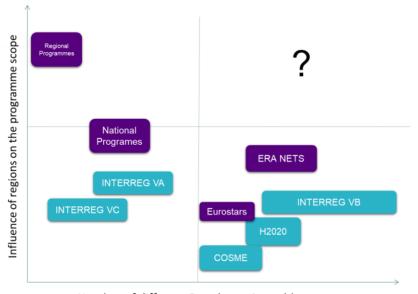


Figure 1: The funding gap for cross-regional cooperation within Danube.

Number of different Danube regions able to cooperate

Source: Adapted from Meier zu Köcker, G., Dermastia M., Keller M. and Bersier, J. (2018). *Proposal for a Cross-regional Scheme to Support the Development of Transformative Activities in the Alpine Space*

The establishment of new bio-based value chains and the bio-economization of existing structures depend on critical mass of actors and investments in innovation, which would significantly benefit from better cross-regional cooperation. Nevertheless, multi-national governance structures for focused cooperation are critically missing in the Danube regions (upper right quadrant in figure 1). There is a persistent funding gap which would allow actors



from several Danube regions to explore common paths towards cluster-based bioeconomization across the Danube regions. There is no single instrument for cross-regional RDI projects, targeting specific transformation opportunities towards bio-economy. A common support scheme is thus critical for the implementation of the JBCS.

Possible Approaches and General Recommendation

Two modalities are conceivable:

• A joint call scheme (common pot). 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. This involves that 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. In the actual context of the Danube region, it does therefore not seem realistic to target such a joint call scheme.

A synchronized call scheme:

Each participating programme management agency funds its own successful applicants. No cross-border funding is involved (no money is crossing any border). 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. National / regional legal provisions may restrict or disallow funding of non-residents. Such a synchronized call scheme approach is the adequate solution to address the gaps and challenges specified in the JBCS and to support the cross-regional implementation of the actions related to the six focus areas.

In conclusion, it is therefore recommended to foster cross-regional cluster cooperation across the Danube regions through a synchronized call scheme.

Based on the similar proposition for a joint call scheme in the Alpine Space (Meier zu Köcker, G., Dermastia M., Keller M. and Bersier, J. (2018). Proposal for a Cross-regional Scheme to Support the Development of Transformative Activities in the Alpine Space) the following methodological framework for a joint call scheme is proposed:

- Calls are funded by already existing regional programs whose calls are synchronized accordingly. This means that there is no need to provide additional funding but rather to synchronize existing programs and calls.
- It is designed to support collaborative projects among several partners, all of whom apply according to their "home" funding role.



- The funding scheme has the significant advantage that funding does not cross any borders nor do any regional application procedures need to be changed.
- Due to the fact that already existing programs are involved, the scheme does not require additional money.
- By synchronizing existing programs, the calls that are directed at similar targets allow for an increase in the critical mass and a bundling of complementary regional competences. Thus, the targets can be reached faster and more efficiently than if different regions would each try to succeed separately.
- Applications shall be evaluated based on the selection criteria set forth in specific calls along with criteria from regional/national funding organizations.
- In order to best support the specific focus areas of the JBCS it is crucial that the calls target concrete activities that contribute to transform existing capacities into assets for the bio-economy (transformative activities).

Furthermore, the following **recommendations** given by Mateja Dermastia and Darja Osvald for a synchronized call scheme for the development of bioeconomy in the alpine regions⁵, have their full relevance in the case of Danube as well:

- o 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.
- 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.

⁵ Dermastia, M. and Osvald, D. (2018). *Study To Prepare A Synchronised Funding Scheme For Bioeconomy Development In The Alpine Region*. Interreg AlpGov.



Launch cross-regional <u>pilot projects to gain experience in implementation</u>. Close monitoring of these activities helps to demonstrate what works and what not. There is not much experience with cross-regional support schemes in Danube and neighbouring regions (for example, Alpine regions) and it is unrealistic to expect that all will join at the same time.