

D.T3.1.2

Transnational Recommendations

Poly4Eml/Anteja ECG d.o.o.
11 / 2022



Project Information

Project Title: GoDanuBio - 'Participative Ecosystems for fostering the revitalization of rural-urban cooperation through governing Danube Circular Bioeconomy'

Project code: DTP3-471-4.1

Lead partner: BIOPRO Baden-Württemberg GmbH

Start of the project: 01/07/2020

Duration: 30 months

<http://www.interreg-danube.eu/approved-projects/godanubio>

Deliverable Information

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Deliverable no.: D.T3.1.2

Submission date: 30/11/2022

Dissemination level: Public

Version	Date	Content	Written by	Reviewed by
1	08/11/2022	V.1	Poly4Eml/Anteja ECG d.o.o.	BIOPRO
2	23/11/2022	V.2	Poly4Eml/AntejaECG d.o.o.	BIOPRO, CLUSTERO, ISC, NCA
3	30/11/2022	Final	BEC, BIOPRO, Biz-Up, CLUSTERO, ISC, KSR, NCA	Poly4Eml/Anteja ECG d.o.o.

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Methodology

This report was drafted based on the project partners' inputs (D.T3.2.2 "Implemented regional policy dialogues") collected through interviews, which were conducted with the national / regional policy level between June 2022 and October 2022 by project partners from Baden-Württemberg, Croatia, Czech Republic, Hungary, Romania, Serbia, Slovakia, Slovenia and Upper Austria¹.

The aim of this task was to collect managing authorities' and funding agencies' feedback on the situation regarding circular (bio)economy in their respective country or region. The regional dialogues were focused on the circular (bio)economy and multi-level governance, both considered crucial developments to unleash revitalized rural areas and to tackle demographic change. It also ultimately aims to establish a close link with: i) The "Danube Region White Paper"², published at the end of 2021 and summarized in a deliverable format via D.T3.2.1; and ii) D.T3.1.1 (Regional Policy Agendas), that gives relevance to the mapped and future funding programmes in the participating regions. WP3 lead Anteja ECG, supported by BIOPRO, provided the methodology and interview questions.

The findings of these interviews are summarized in this deliverable and will be used for validating the Joint Governance Strategy.

The guiding questions for the interviews were the following:

1. Feedback from Managing Authorities and Funding Agencies on the situation regarding circular (bio)economy in your region/country

Present the current situation in the Danube Region to the representatives of the Managing Authorities and Funding Agencies in regard to circular (bio)economy with emphasis on the gap between the EUSDR³ and regional/national circular (bio)economy⁴ strategies. Reflect on the situation in your region. You could also present the good practices of Baden-Württemberg to trigger the discussion.

Based on your presentation, please describe the feedback from the representatives of the Managing Authorities and Funding Agencies.

2. The outlook on funding programmes available in the coming months/years

Discuss with the interviewees about what funding programmes will be available in the coming months/years related to circular (bio)economy in your region/country.

3. Status of interministerial collaboration in your region/country

¹ Interviews in Bulgaria were not manageable in due time.

² [Danube Region White Paper](#)

³ [EU Strategy for the Danube Region](#), last accessed 07/06/2022

⁴ Since WPT1 concluded that in some countries circular economy is better positioned at policy level, please consider also the thread of "circular economy", in case it is prioritised in your region/country

Describe the level of collaboration between representatives of different Ministries within the region/country. How do the interviewees evaluate the level of collaboration (very poor, poor, satisfactory, good, very good) and explain the answer?

4. The level of the mutual exchange with peers of the Danube Region

Describe how the interviewees evaluate the level of the mutual exchange with peers of the Danube Region. In which kind of fora does take place this exchange? Do they have any suggestion or advice for the Brain Trust?

5. Recommendations on Joint Governance

Do the representatives of the Managing Authorities and Funding Agencies have some recommendations on Joint Governance in the Danube Region? Generic recommendations are also welcome.

Transnational recommendations in the Danube macro-region

The situation in the countries and regions is heterogeneous, with participants in the interviews expressing a broad range of experiences, challenges, and concerns, as well as recommendations that they felt were needed. In order to better understand the transnational recommendations, one must first examine the updated situation in the countries and regions since the last meetings, and then explore their views and recommendations to better foster transnational cooperation in the Danube context.

Participants had previously been introduced to one tool for transnational cooperation, the Brain Trust Roadmap for bioeconomy in the Danube Region, highlighting the need, among others:

- for more links between regional strategies and the Danube Transnational Programme,
- to incentivize regional programme owners to align with macro-regional strategies and cross-border and cross-sectoral cooperation,
- to ensure skill development at policy level on cross-border cooperation making it easier to implement and emulating best practices,
- to support the uptake of new technologies and promote RDI development.

The experiences and developments of Member States and regions is described below, along with their thoughts on transnational recommendations and perceptions.

Baden-Württemberg

The interview questions in this region were partly / slightly reformulated to adapt them to the territorial specificities of Baden-Württemberg and to the maturity level of its bioeconomy-related policies.

The inter-ministerial cooperation was reported as being good. The Ministry for Environment, Climate and Energy and the Ministry of Food, Rural Affairs and Consumer Protection not only cooperate with each other to implement relevant thematic strategies, but also share a common website on the bioeconomy. The current focus has been on projects that capture and store carbon, with the end goal of recovering carbon to be used by industry. One example given was the potential to use carbon in the chemical industry. This is covered by ERDF schemes that both ministries are working together on. In addition to these two ministries, bioeconomy and circular economy issues also enjoy the involvement of a third ministry, the Ministry of Economic Affairs, Labour and Tourism. This ministry also contributes to an international aspect to cooperation in the fields of bioeconomy and the circular economy by providing support with EUSDR PA8 projects like DanuBioValNet or GoDanuBio.

The interview in this region expressed the view that with the valuable work in the projects DanuBioValNet and GoDanuBio, knowledge concerning bioeconomy is already being transferred into the Danube Region. Among the project partners, a high level of exchange is taking place. The interviewee believed that she could offer information to governments and

stakeholders in the Danube Region concerning the bioeconomy and support the political work of the process of the creation of bioeconomy strategies in all states and regions. Projects co-funded by the European Union Funds (ERDF and IPA) should not only think of biomass, but also include the principle of a circular bioeconomy, which is based on the recovery of (raw) materials from waste (including metals), wastewater and exhaust air. Secondary raw materials are important to secure the supply, especially concerning the resilience of value chains. At the same time, a circular bioeconomy is a strong driver for the economy due to the independence from land use.

The view was also expressed that the Danube Region is very heterogeneous, and the situation is extremely different from one country to another. A guideline can always be the EU bioeconomy strategy, which was updated in 2018. A report on the progress made in its implementation was published in 2022. Furthermore, the interviewee thinks that each country should apply its own participation process and find out in discussion with relevant stakeholders which measures are the best in the current situation for the specific country. The framework of the EUSDR, including work in transnational projects, is important to spread the knowledge and advice, if wished.

Croatia

The Ministry of Economy and Sustainable Development through the National Recovery and Resilience Plan 2021-2026 in July 2022 aims to support companies for the transition to an energy and resource-efficient economy which will support faster adaptation of the economy to current and future environmental requirements. It will also influence the reduction of negative effects on the climate and environment, increase sustainability of production, preserve and create new jobs and strengthen the local and regional competitiveness. The purpose of the call is to encourage production investments of small and medium-sized and medium-capitalized private companies from energy-intensive industries. The investments relate to the promotion of the circular economy, i.e., the introduction of resource efficiency in the production cycle and product life, as well as the reduction of harmful emissions from energy-intensive industries. In the Strategic Plan of the Common Agricultural Policy of the Republic of Croatia 2023 – 2027 support is envisaged to use the potential that Croatia has for the transition to a sustainable circular bioeconomy regarding available land surface and natural resources.

In terms of transnational cooperation, the Croatian interviewees felt that the situation was acceptable. The level of mutual exchange with peers was said to be satisfactory. The Ministry of Regional Development and EU funds (MRDEUF), as the national coordinator of macro-regional strategies and the managing authority representatives participate regularly in exchange on Danube Region Programme programming committee meetings and MC meetings where themes tackled by the GoDanuBio project proved relevant and were discussed regularly. The issue of the revitalization of rural-urban areas and cooperation in circular bioeconomy of the Danube Region will also be addressed in the future programme perspective through selected SO-s/PO-s.

Furthermore, MRDEUF participated in various meetings regarding circular (bio)economy and circular economy as stakeholders organized by the Ministry of Economy and Sustainable

Development and other stakeholders in Croatia, Baden-Württemberg, Bavaria etc. They had an exchange with colleagues at a preparatory meeting organized by the BioEastUp project on 15 July 2022 where the aim of the discussion was to assess the different initiatives regarding bioeconomy and making bioeconomy more visible and acceptable in the regional development programming.

The EUSDR Annual Forum is another place where exchange and initiatives regarding these relevant topics take place, and it is a great platform for brainstorming and contemplating new solutions. MRDEUF participates regularly in exchanges with peers in the framework of Priority Area 10 of the EUSDR aiming at stepping up institutional capacity and cooperation as a precondition for shaping a sustainable, more resilient, and prosperous future.

Czech Republic

Interviews were conducted with participants from three stakeholder groups; Ministry of the Environment, Ministry of Industry and Trade and the Technology Agency of the Czech Republic. The gap between the situation in the EUSDR countries, namely the Czech Republic and regional/national circular bioeconomy strategies of the EU developed countries was emphasized. The need for more targeted support from the government was described and the good practices of Baden-Württemberg's BIOPRO, the project's lead partner, was invoked. There was also discussion of the document "Proposed procedure for the coordinated development of the bioeconomy in the Czech Republic" which the NCA submitted to the Minister of Environment as the result of the co-creation workshop in Prague. The idea of NCA is to establish a Bioeconomy Committee at the Government Council for Sustainable Development, the Czech government advisory body administrated by the Ministry of Environment, due to the fact that the circular bioeconomy agenda is not yet anchored in any body of the Czech government.

Based on the bioeconomy thematic activities of the South Bohemian Association for Bioeconomy, established on the basis of the Horizon 2020 Power4Bio project, the domain of "Bioeconomy" was included among the South Bohemian Regional RIS3 domains. Subsequently, bioeconomy became also one of the smart specialisation domains within the National Research and Innovation Strategy for Smart Specialisation of the Czech Republic 2021-2027. Petr Ocko, Deputy Minister, Technology 4.0 Section, Ministry of Industry and Trade of the Czech Republic (MIT) thus recommended to contact his RIS3 Department to discuss the possibilities of strengthening the position of bioeconomy and its overall understanding among the regional RIS3 managers. The NCA proposed the organisation of the training seminars for RIS3 managers on bioeconomy and provided the CzechInvest State Agency, entrusted with the System support for the implementation and management of the National RIS3 (2023-2025), with a draft curriculum of the bioeconomy training.

The MIT is also the Managing Authority for the Operational Program Technologies and Application for Competitiveness (OP TAC) with a wide range of priorities, such as: research and innovation, digitization, skills for smart specialization, industrial transformation and entrepreneurship, increasing the added value of products and services in the production chain, Industry 4.0, storage of energy, energy efficiency and energy savings, deploying innovative low-carbon technologies, effective and thrifty use of renewable energy sources

and others. Although many of the priority areas cover the topic of circular bioeconomy, it has not been explicitly mentioned. In order to implement this priority, it would require to receive a specific instruction from the Czech Government Office or directly from the European Commission.

The Technology Agency of the Czech Republic, the state research funding agency, has already funded several bioeconomy devoted projects. The BIORAF - Competence Centre for Biorefining Research is the example of one of them (2012-2019). Also, for the future, bioeconomic thematic calls are expected to be announced.

The Ministry of Industry and Trade of the Czech Republic cooperates with the Ministry of Environment within the National Innovation Platform VI - Sustainable agriculture and environmental sectors on two levels – first, the proposals and approval of the R&D&I topics in application sectors, such as circular economy and utilization of biowaste, and the second level of cooperation concerns the meetings of the expert group of the R&D&I support providers, within the mission of streamlining the material, energy and emission intensity of the economy.

In terms of peer cooperation and the more transnational aspects of the programme, the Ministry of Environment implements the international cooperation through its Foreign Relations Department. However, it was unaware of the mutual exchange with peers of the Danube Region. Interviewees also indicated that there were no specific relations with Danube peers, at least at the current time. The Technology Agency stated that it does not have any special tool for the mutual exchange with peers of the Danube Region.

Hungary

In the Hungarian context, interviews revealed the view that the circular economy was only a phrase that the government used but did not take seriously in terms of actualization. In Hungary as a whole, other concerns such as the war in Ukraine, the energy crisis, and EU funding debates mean that the (bio)economy and circular economy does not feature as saliently in the public imagination as other issues. There were allusions in interviews to the invisible nature of the problem and the social inertia stemming from lack of competence, trust, and perspective. A strong and visible central commitment to the cause is needed for the necessary changes to actually take place. That said, whilst ministerial level support was spoken of in sometimes critical terms, it was acknowledged that the support was still there.

In terms of financial support, rural development funds were reported as being scarce and often focused on either infrastructure or more traditional SME development. In order for the rural regions to develop beyond projects such as selective waste treatment and composting, there needs to be either a widespread movement with easy-to-implement interventions producing short term results, or an about-face in prioritizing large and calculably visible “shop window projects”.

Concerning the transnational aspects reported by respondents, the level of cooperation was said to vary a greatly. Generally speaking, collaboration was felt to have stagnated or deteriorated in recent years. Personal and informal connections were still operational, but cooperation often takes place on a need-to basis by necessity rather than in a more

structured and consistent way. International cooperation projects exist in most ministries and agencies, and these provide great opportunities for discussion and common thought. At the same time these are often seen as extra “hobbies” by line representatives, and therefore may be discouraged depending on the ministry and the field. On a personal level all interviewees stated they would welcome more intensive cooperation opportunities and are prepared to champion such initiatives if and when they arise.

Romania

Romania has the policy “National Strategic Plan on Common Agricultural Policy in Romania” (2023-2027)⁵. This plan points out that there is a need to finance integrated projects, regardless of the size of enterprises in the agricultural sector, forestry, and food industry. The circular (bio)economy is considered to be a central driver for the sustainable development of rural areas, in correlation with the development of farms which are acting in an organized production system. In addition, the Romanian Government has the National Strategy for Circular Economy published on September 27th,2022 ⁶, which aims to approve the mechanism for granting financial support from the state budget. The intervention aims at facilitating a major change in the whole Romanian economy, with important consequences on economic development over a long period of time and with particular implications of a strategic nature.

Among the stated goals of Romania’s economic transition are;

- Decoupling economic growth from the consumption of natural resources by reusing and recycling materials already available on the market as waste;
- Decrease GHG emissions in line with European and international targets;
- To make the eco-design of products more efficient, so that their lifetime is extended, their reparability is increased, and the recycling of component materials is possible easily and with increased yields;
- Extending and making operational at national level separate collection systems for all types of waste that can become valuable economic resources (bio-waste, packaging, WEEE, textiles, wood, ferrous materials, construction waste);
- The effective implementation of a national system linking industrial producers so that waste from one industry becomes raw material for another industry;
- Adoption of economic instruments to promote re-use and stimulate industrial symbiosis and green products.

The reforms and investments in the plan will help Romania become more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. To this end, the plan consists of 107 investment measures and 64 reforms. They

⁵ https://www.madr.ro/docs/dezvoltare-rurala/2022/PNS_2023-2027_vers- 1.0_sfc2021-2023RO06AFSP001.pdf

⁶ <https://dezvoltaredurabila.gov.ro/strategia-nationala-privind-economia-circulara-13409762>

will be supported by an estimated €14.24 billion in grants and €14.94 billion in loans. 41% of the plan will support the green transition and 20.5 % of the plan will support the digital transition.

In terms of transnational cooperation, the feeling was good. International cooperation between the Romanian authorities and the EU bodies works well. The representatives of the Ministry of Economy participate in the meetings of the working groups of the European Commission and in various international organizations on specific topics. At the same time, the bioeconomy is a topic on the agenda of the intergovernmental mixed commissions with the countries of the Danube Region. In addition to the formal cooperation, where countries or ministries are officially invited to cooperate, informal and personal contacts also play an important role in the development of strategies and funding. The interviewees evaluated the level of collaboration very good and gave as a good example the Sustainable Development Forum in October 2022 organized in cooperation by the General Secretariat of the Government and CLUSTERO in cooperation with the Department of Sustainable Development. There was a brief comment that there is not very much exchange between different peers regarding circular biobased and sustainable development, at least not on an organized level.

Serbia

Within the Circular Economy Development Program of the Republic of Serbia 2022 - 2024, which is expected to be adopted after the formation of the new government, the Action Plan has a general goal: "Creating a stimulating environment for the development of the circular economy in order to support the green transition in the Republic of Serbia" with 5 specific goals;

- Support the economic sector in the transformation to a circular business model.
- Supporting local governments in creating circular communities (strengthening the capacity of local governments is a necessary step in the implementation of any type of reform at the national level, and it is especially important for a circular economy in which, in addition to the economy, citizens also participate directly, as consumers and users of services).
- Improvement of the waste management system through more efficient use of waste in the circular economy.
- Support for the application of green public procurement and voluntary instruments in the field of environmental protection.
- Raising the awareness of interested public and educational institutions about the concept of the circular economy

In terms of transnational cooperation, As the topic of circular bioeconomy is in a conceptual stage in Serbia, there is not very much exchange between different peers regarding circular biobased and sustainable development, at least not on an organized level. The communication between the organizations is also missing sometimes and not happening on an organized level. At the same time, the Ministry of European Integration, as the National coordinator of macro-regional strategies and the Managing Authority representatives participate regularly in exchange on Danube Region Programme (DRP) programming

Project co-funded by the European Union Funds (ERDF and IPA)

committee meetings where themes tackled by the GoDanuBio project proved relevant and were discussed regularly. Consequently, it is to be expected that the issue of the revitalization of rural-urban areas and cooperation in circular bioeconomy of the Danube Region will also be addressed in the future programme perspective.

Slovakia

On the topic of circular economy, the Ministry of Environment, together with OECD implemented a project with the aim to prepare a circular economy roadmap for Slovakia. The expected impact of this project was to create a coherent policy framework, including concrete measures to enable the transition to a circular economy and to contribute to the transition to a carbon-neutral economy. The specific impacts of proposed measures should be reflected in improved resource efficiency and waste management, increased raw material self-sufficiency, reduced environmental pressure related also to public health, as well as increased competitiveness of industries and job creation.

Slovakia has a number of well-funded initiatives in line with the bioeconomy and circular economy. Slovakia has €2.7 billion set aside under its “Recovery and resilience plan - Green economy area” overseen by the Ministry of the Environment. In Slovakia, several funding schemes have been adopted at the strategic and planning levels, the task of which is to ensure the economic growth of the state while reducing negative impacts on the environment.

However, the status of implementation of the activities focused on circular bioeconomy is still lagging behind the EU average. For Slovakia, it is a permanent challenge to reflect the principles of circular bioeconomy and other green initiatives into everyday life, evaluate all planned and performed activities using criteria of these principles, and assess the heading towards sustainability using a set of measurable indicators. Although the ministries understand the necessity and importance of interministerial cooperation, generally the skepticism in terms of active and/or relevant participation prevails. Moreover, interviewees consider also following factors as reasons of unsatisfactory interministerial cooperation:

- lack of particular strategy for circular bioeconomy in Slovakia
- insufficient legislative coverage of such oriented activities
- circular bioeconomy is still not a priority in Slovakia, although it has great potential
- approach to the development of strategic documents does not address the topic in a comprehensive way
- low support for farmers involved in circular bioeconomy

The importance of both the mutual exchange of ideas and raising awareness of results and initiatives within bioeconomy by pointing to concrete examples of practice among various stakeholders (policy makers, research institutes, businesses, general public) through available channels was highlighted. In order to develop and support the multi-actor cooperation in the bioeconomy, complex cooperation interactions between stakeholders are needed, and thus the representatives of various ministries participate in various fora, conferences, working groups, platforms and projects, e.g.: as member of the Bioeconomy

Policy Forum (established by the EC), participants at Soil Mission brokerage events in Brussels, partner in BIOEASTsUP project, etc.

Slovenia

There is no self-standing circular (bio)economy strategy in Slovenia. There is EIT Climate KIC initiative, where the most active ministries are Government Office for Development and European Cohesion Policy, Ministry of the Environment and Spatial Planning and Ministry of Economic Development and Technology. The smart specialisation aspects of this include various areas, including circular bioeconomy materials, tourism, and food. Interviewees reported that Slovenia's national policies are focused on making a green transition, but there is a problem which lies in horizontal vs. vertical perspectives. For each vertical area there is also a need for all horizontal areas to be included as well. For example, innovation must be included in the circular economy, as well as in other horizontal areas. All the main vertical areas of the scheme must aim for a green transition.

All the ministries have something to do with circular (bio)economy. Agencies cannot lead the green transition, since they do not create national policies or programmes. The key feeling expressed by interviewees was that if the current government realizes its plan to establish 20 ministries, there should be also a single ministry for the green transition. This would mean more public exposure to the goal of a green transition as well. Parts of MGRT, MOP, MZI and others would be included in the new ministry.

In terms of transnational cooperation, interviewees felt that other countries with more established and successful experiences could and should share methods of best practice with countries such as Slovenia. Germany and Austria were given as two examples of countries that could take the lead in this area, which felt to be due to historical reasons and higher levels of development. Some countries were not felt to have adequate representation in Working Groups and there is a lack of focus on the Danube Region in the BIOEAST. The EU also tends to have tenders which were felt to be country specific. There was felt to be insufficient integration within and between countries. At BIOEAST meetings, there should be attempts to connect with project leaders to present their activities. Projects co-funded by the European Union Funds (ERDF and IPA) should be looking for a connection with the Danube, as this is a cross-sectional region.

It was felt that connections should take place in cross-cutting areas, and that there should be an exchange of opinions, mutual presentations, and discussion of common interests/problems. Some topics mentioned included agroecology, nutrition, education, bioenergy, and biogas plants.

Upper Austria

The managing authorities in this region have a very differentiated view of the bioeconomy. Some interviewees expressed their views that they saw Upper Austria's great tradition in the timber industry as being worthy of being showcased. Large employers train highly qualified workers in all downstream and upstream sectors of the wood and cellulose industry, they create jobs and thus keep people in the region. Many innovations that contribute to the

circular economy and biorefinery are created in these companies. In this sense there is a strong confidence in the region. However, this is not the case for all sectors, such as farming.

Skepticism prevails among the respondents concerning farming, particularly organic farming. In this economic sector, Upper Austria is not seen as a model region given that just 20-25% of the agricultural area is farmed organically. Agriculture is heavily dependent on the petroleum-based fertilizer industry and international feed imports. Neither are particularly conducive to the goals of (bio)economy and circular economy. This is further aggravated and complicated by the international situation and the tightening of the framework conditions (Ukraine war, shortage of raw materials, fuel costs etc.).

Whilst there are challenges, the authorities are making efforts to address the shortfall vis-à-vis the situation in agriculture. Efforts to create a circular economy in agriculture are underway with the EIP (European Innovation Partnership) and the Biocompetence Centre FIBL (Forschungsinstitut für biologischen Landbau). The circular (bio)economy has experienced a push forward and is increasingly anchored in the consciousness of the managing authorities and the population. The political plans (e.g., Renewable Energy Expansion Act, phasing out of combustion engines from 2035) should ultimately contribute to an upswing in the direction of a "green" region. However, these changes are seen as a very long and slow process, which can be curbed at any time by certain national and international events.

In terms of transnational cooperation in the region, there is not very much exchange between different peers regarding circular biobased and sustainable development, at least not on an organized level. The only economic sector that is well connected around this topic is the agricultural sector through organizations such as "BioAustria", or "LFI - Landwirtschaftliches Fortbildungs Institut". Furthermore, there are also some organizations like "Circular Economy Forum Austria", or startup/idea incubation programmes such as "Circle 17" which work on a national level, but not on a regional level. The view was expressed in interviews that probably the most "intersectional" work is done in projects.

In order to properly address the challenges regarding climate change and more environmental sustainability, more work is needed on an interconnected, cross-sectoral basis. There is the need to connect startups and corporates from all sectors as well as research institutions and politics to find new ways of working and new technical solutions in networks. In this way, the Danube Region could become "frontrunner region" regarding sustainable cooperation and development.

Conclusion

The transnational aspects of the Danube Region Programme are amongst the most important. Given the nature of the Danube, which crosses multiple national borders and flows into both EU and non-EU territory, it is vital that cross border cooperation is maximized. Furthermore, there is a common saying that "pollution knows no borders" therefore any scheme aimed at sustainability, bioeconomy and green initiatives must know no borders either. Whilst initiatives at the national level are important, they must remain

joined up with the broader regional, cross border perspectives if they are to be at their most effective.

The reported experiences of the transnational aspects of the scheme were variable between Danube countries/regions. The interviewees reported that the extent and quality of transnational cooperation varies case by case. Some such as Romania reported that it was good, some such as Croatia merely that it was satisfactory and others such as Hungary felt it had either stagnated or had even declined. Clearly this wide range of experiences is a potential issue, and it could be that this variance is simply due to reporting differences, but it is more likely that this is due to the real or at least perceived experience of Danube countries/regions.

As well as individual experiences, certain themes did appear to be common to several regions. Among them was recognition of certain countries/regions and their ways of working, with Germany and Austria both being praised in this regard. Furthermore, several regions reported that whilst policy makers in their country made verbal statements of the importance of the circular and bioeconomy, these were not always followed through with practical actions. Finally, several regions spoke positively of the EUSDR.

It is vital that the transnational aspects of the programme are strengthened where they are currently weak and formalized where they are currently informal. Particular attention must be paid to the fact that not all Danube countries/regions have the same economic strength, procedural protocols, or breadth and depth of technical expertise as others. Different countries/regions have often had very different historical experiences and have had differing levels of stress due to more recent events, which are all worthy of consideration. The Danube is a diverse and heterogenous region, and this is a vital consideration to go forward.

Great progress has been made on creating a Danube Region that is interconnected, ecologically focused and economically vibrant. Despite many challenges, the region contains vast potential. Some challenges are more structural and long established such as the demographic change and the need to remain competitive with emerging economies outside of Europe. Other challenges are more acute and sudden such as the dislocations caused by COVID-19, or the supply chain disruptions caused by the war in Ukraine. Whatever the challenges that remain, there is great scope for improvement.

Based on the interviews conducted by the project partners, we can summarize the most evident transnational recommendations:

- It was reported that some countries recognised the progress and procedures used in other countries. Germany and Austria were mentioned favorably in this regard. More developed and experienced partners such as Germany and Austria could take the lead in mentoring less experienced states by sharing best practice.
- Informal links between partners and main players must be maintained as they can fill gaps when more official links are weak or underused. However, these relationships should be formalized within platforms, so as to strengthen them.

- Some industrial sectors in some Danube countries/regions are felt to be better candidates than other sectors when it comes to circular and bioeconomy programmes. Whilst these sectors should be supported, the less well supported and promoted sectors must not be neglected.
- The EUSDR framework was mentioned by more than one respondent as being a positive platform to raise issues of the circular and bioeconomy. This suggests that the bioeconomy and circular economy aspects of all policies should be given greater and more specific prominence than broader “sustainability” programmes and meetings.
- Stress the importance of following through with commitments in practice. Whilst it is an achievement that bioeconomy and circular economy feature more prominently in political discourse, these promises must be actualized. Ministries that do not follow through may not do so out of a perceived lack of expertise, and therefore more information and best practice sharing between different ministries within and across countries may counter this.