

D.T1.1.1

Capitalisation of existing results

Czech Republic



NCA
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Project Information

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1. Description of the region and its economic situation in general

The Czech Republic is a medium-sized country in the EU, according to the land surface, with 10.6 million inhabitants. The average income level is just below the average of the EU. The export value expressed in €/capita is still relatively low. The Czech Republic has a relatively high agricultural area, comprising 3.5 of the 8 million ha total area. The forest area is also nearly 3 million ha. Forests are located mostly closer to the borders of the country, while most of the central and southeast is agricultural land. A relatively high percentage of the area is rural, and nearly one-quarter of the population resides there. Close to 40% of the population lives in rural areas, which is similar to the European average. The GDP by purchasing power is similar to the European average, however lower than the average in Euros at current prices. GVA by agriculture, forestry and fishing is higher than the European average.

The economy of the Czech Republic is a developed export-oriented social market economy based on services, manufacturing, and innovation, that maintains a high-income welfare state and the European social model. The industry sector accounts for 37.5% of the economy, while services for 60% and agriculture for 2.5%. The development of new tools to make farming, forestry and waste management practices more efficient would accelerate the bioeconomy both locally and in other countries. Currently, waste management within municipalities needs advancement both in infrastructure and process. At present, the biomass found within waste is largely not collected and can be seen as an opportunity to develop new industries and encourage a mentality for recycling.

The country openly embraces innovation, and the access to technologies and an educated population can translate to new tangible solutions to align with this new economic vision.

The Czech Republic is a very business-friendly country, with functioning institutions, access to resources (both financial and raw materials), highly developed transportation networks, and a well-developed legal structure. However, the overall awareness of the bioeconomy is in its beginning, coupled with the availability of under-utilized biomass, and low competition in selected sectors indicates a strong opportunity for external stakeholder involvement.

2. Objectives and identification

The main objective of this deliverable is to gain good knowledge and, when possible, to capitalize results from a selected list of EU-funded projects and macroregional documents that are related with demographic change, circular bioeconomy and/or sustainable rural development.

The first research batch, focused on Horizon 2020 projects, was delivered by MIZS; BIOPRO made a first selection from this batch and extended the search in October 2020 with a focus on Interreg projects (Danube Transnational Programme, Alpine Space and Interreg Europe, including ARPAF) using the keep.eu database. Further research related to Horizon 2020 projects was done through [CORDIS](https://cordis.europa.eu/) and the database of the Bio-Based Industries/BBi JU funded [LIFT project](https://lifter-project.eu/) that encompasses the results of up to 34 coordination and support actions funded mainly by Horizon 2020.

As search criteria, projects starting from 2016 onwards were considered and it was intended that most of the selected projects had at least one of the countries participating in GoDanuBio in their consortia. From each relevant project, its deliverables and outputs that could be interesting for the development of GoDanuBio were identified using the project websites. In some particular cases, the deliverables were not available and, if relevant, were requested by other means.

The search has delivered 19 EU-funded projects and 12 transregional documents. Only a handful of them have a focus on the deployment of the bioeconomy in the Danube macro-region; some of the outputs can be used as inspiration or even guideline to gain insight in the transnational approach aimed by the project. Complementary to this search, all partners are invited to identify further transregional projects and macroregional documents that are relevant for their regions with regard to the implementation of GoDanuBio and to include them in their reports.

2.1 Projects

2.1.1 AgriGo4Cities

Coordinator: Research Centre of the Slovenian Academy of Sciences and Arts, SI

Start/Finish date: 1.1.2017 – 30.6.2019

Main objective: To enhance institutional capacity of public authorities and stakeholders, efficient public administration and public services related to the implementation of the ERDF through project actions.

Measures related to demographic change, circular bioeconomy or rural development:

The project sought to close the gap in trust between public administration and citizens by incorporating participatory methods into decision-making, with particular emphasis on social groups at risk of exclusion. The urban agriculture was used as a tool for stimulating a sustainable urban environment.

Did your organization take part in the project? No. The Czech Republic was represented by the European Development Agency (Czech company limited) and Municipal District Prague 9. The Prague City Hall was the associated partner.

Specify briefly the results to be capitalized in your region/country: The project outputs of the Governance Plan; Guidelines for the development and implementation of an action plan; and the Good practices catalogue of participatory urban agriculture.

2.1.2 DanuBioValNet

Coordinator: BIOPRO, Baden-Württemberg, DE

Start/Finish date: 1.1.2017 – 30.6.2019

Main objective: The project aims at establishing bio-based industry networks across the Danube Region.

Measures related to demographic change, circular bioeconomy or rural development:

The bioeconomy awareness, mapping of bio-based value chains and implementation of pilot actions paved the way to introducing the bioeconomy to clusters and other potential bioeconomy stakeholders in the Czech Republic.

Did your organization take part in the project? Yes

Specify briefly the results to be capitalized in your country: The project proved that properly performing clusters can help to upgrade industrial practices, generate new knowledge and contribute to

regional policy-making. The project outputs, such as the TOP bio-based products in the Danube Region and Joint strategy for bio-based industry cluster policy can help to promote bioeconomy.

2.1.3 Attractive Danube

Coordinator: Geodesic Institute of Slovenia

Start/Finish date: 1.1.2017 – 30.6.2019

Main objective: To strengthen the multilevel and transnational governance and institutional capacities by establishing a permanent common transnational platform for monitoring territorial attractiveness.

Measures related to demographic change, circular bioeconomy or rural development:

The project addresses both demographic change and rural development issues revealing the way of improving the territorial attractiveness of the regions via a participatory approach.

Did your organization take part in the project? No. The Czech Republic was represented by CENIA, the Czech Environmental Information Agency.

Specify briefly the results to be capitalized in your country:

The Territorial Attractiveness Monitoring Platform (TAMP) had been developed with the aim to contribute to better territorial development and to support multi-level and cross-sectoral governance.

2.1.4 CELEBIO

Coordinator: INCE – Iniziativa Centro Europea/Central European Initiative, IT

Start/Finish date: 1.6.2019 – 30.11.2020

Main objective: To contribute to encouraging the uptake of Bioeconomy in participating countries through the evidence-based Action Plans and dissemination of information on the opportunities offered by the Biobased Industries Joint Undertaking (BBI).

Measures related to demographic change, circular bioeconomy or rural development:

Profound analyses of the country's bioeconomy potential for the national bioeconomy action plan.

Did your organization take part in the project? No. The Czech Republic was represented by the Masaryk University in Brno, namely, its Centre of scientific excellence in the field of life sciences, advanced materials and technologies (CEITEC).

Specify briefly the results to be capitalized in your country: The Country Report: Czech Republic summarizes the information on the potentials and benefits of biobased activities, bio-based industries and value chains, sustainable biomass potentials and inventory of bioeconomy stakeholders.

2.1.5 Power4Bio

Coordinator: CIRCE, ESP

Start/Finish date: 1.10.2018-31.3.2021

Main objective: To increase the capacity of regional and local policymakers and stakeholders to structure their bioeconomy and to support the emergence of a thriving bio-based sector.

Measures related to demographic change, circular bioeconomy or rural development: The project is focused on the bioeconomy, development of regional bioeconomy strategies in 10 regions across the EU with bioeconomy solutions, best practices and business models considering the regional needs.

Did your organization take part in the project? No. The Czech Republic is represented by the University of South Bohemia in České Budějovice.

Specify briefly the results to be capitalized in your region/country: The model of regional approach to bioeconomy can be capitalized both in the used methodology, implemented actions and final outputs. The project can help us to move forward with the status of the bioeconomy in the Czech Republic.

2.1.6 BIOEASTsUP

Coordinator: Institute of Soil Science and Plant Cultivation, PL

Start/Finish date: 1.10.2019 – 30.9.2022

Main objective: To support the BIOEAST initiative and Action Plan for a transition of 11 Central and Eastern European (CEE) countries to the bioeconomy.

Measures related to demographic change, circular bioeconomy or rural development:

To achieve the EU Circularity and Sustainability goal under the auspice of bioeconomy, BIOEASTsUP develops an open and inclusive platform to provide a framework for National Bioeconomy Strategies.

Did your organization take part in the project? No. The Czech Republic is represented by Agricultural Research Ltd., Troubsko

Specify briefly the results to be capitalized in your country: The project is in progress; So far, the BIOEAST HUB CZ has been established as the tool of the BIOEAST initiative creating a national union of stakeholders interested in building the Czech bioeconomy strategy and research agenda.

2.2. Macroregional documents

2.2.1 EUSDR Revised Action Plan – Commission Staff working document

Author: European Commission

Year of publication: 2020

Scope of the publication: generic focus

Measures related to demographic changes, circular bioeconomy or rural development:

The Czech Republic (Ministry of Industry and Trade), together with Hungary, is the coordinator of Priority Area 2 – Sustainable Energy. Regional biomass-based energy and heat supply are one of the bioeconomic topics under development in the Czech Republic.

2.2.2 European Commission Report on the Impact of Demographic Change

Author: European Commission

Year of publication: 2019

Scope of the publication: focus on Demographic change

Measures related to demographic changes, circular bioeconomy or rural development:

The demographic change and the twin green and digital transitions are introduced.

2.2.3 Bioeconomy development in EU regions

Author: European Commission

Year of publication: 2017

Scope of the publication: focus on bioeconomy in the EU

Measures related to demographic changes, circular bioeconomy or rural development:

The mapping of EU Member States' / regions' Research and Innovation plans & Strategies for Smart Specialisation (RIS3) showed low results of involvement in bioeconomy in the Czech Republic.

2.2.4 The biobased status in the Danube Region

Author: DanuBioValNet Consortium

Year of publication: 2019

Scope of the publication: focus on Demographic change

Measures related to demographic changes, circular bioeconomy or rural development:

The initiation of the bioeconomy topic in the Czech Republic, survey and basic data on the bioeconomy situation in the Danube Region, the Baden-Württemberg bioeconomy support approach serving as the model to replicate.

2.2.5 BIOEAST vision paper

Author: BIOEAST initiative

Year of publication: 2018

Scope of the publication: focus on bioeconomy

Measures related to demographic changes, circular bioeconomy or rural development:

The BIOEAST vision to have a knowledge-based, sustainable, circular bioeconomy in the macro-region boosts the role and importance of the bioeconomy in the V4+ countries.

2.2.6 State of play of Central and Eastern Europe's bioeconomies

Author: Nova Institute

Year of publication: 2018

Scope of the publication: focus on bioeconomy

Measures related to demographic changes, circular bioeconomy or rural development:

The BIOEAST region's unused or underutilized biomass potentials are increasingly recognized. Insufficient infrastructure, missing links between industries and the regional abundance of fossil resources are the main hurdles for the further development of a higher value bioeconomy.

2.2.7 Characteristics of sustainable bioeconomy in the CEE macro-region

Author: Research Institute of Agricultural Economics in Budapest

Year of publication: 2018

Scope of the publication: focus on bioeconomy

Measures related to demographic changes, circular bioeconomy or rural development:

Innovation system frameworks were proven to be able to provide a better understanding of the drivers of bioeconomy, a thought-provoking assessment of perceptions on policy interventions, and useful implications for policymakers, business and policy stakeholder groups.

2.2.8 Socio-economic insights into the Bioeconomy in BIOEAST countries

Author: European Commission

Year of publication: 2019

Scope of the publication: focus on bioeconomy

Measures related to demographic changes, circular bioeconomy or rural development:

The overview of the BIOEAST countries bioeconomy puts the Czech Republic in the lead of the biorefinery installations (8 of a total of 18) and brings important analytical data concerning bioeconomy that can serve for the next update and comparison to show the development and achievements.

2.2.9 How to use RDP's to support rural bioeconomy?

Author: European Network for Rural Development

Year of publication: 2019

Scope of the publication: focus on urban-rural interaction

Measures related to demographic changes, circular bioeconomy or rural development:

The document summarises the recommendations developed by the Thematic Group on the use of Rural Development Programmes (RDPs) to support rural bioeconomy. The RDPs are one of the basic pillars of the Czech agricultural and local development policy.

2.2.10 How to mainstream the bioeconomy in rural areas?

Author: European Network for Rural Development

Year of publication: 2019

Scope of the publication: focus on Urban-rural interaction

Measures related to demographic changes, circular bioeconomy or rural development:

A Thematic Group on Mainstreaming Bioeconomy delivers recommendations on the development of sustainable bioeconomy value chains in rural areas in order to promote employment, and economic growth, social inclusion, while preserving ecosystems.

2.2.11 Policy Note: Rural 3.0 A Framework for rural development (OECD)

Author: OECD

Year of publication: 2018

Scope of the publication: focus on Urban-rural interaction

Measures related to demographic changes, circular bioeconomy or rural development:

The rural development devoted research project of Rural 3.0 is running in the Czech Republic.

2.2.12 Long-term vision for rural areas

Author: European Commission

Year of publication: 2021

Scope of the publication: focus on Urban-rural interaction

Measures related to demographic changes, circular bioeconomy or rural development:

The Ministry of Agriculture of the Czech Republic is in charge of representing the Czech data in the document oriented on the agricultural sector in rural areas.

3. Findings

The topics of **demographic change**, which is the subject of the above-mentioned relevant projects and macroregional documents, is mostly tackled by the Ministry of Labour and Social Affairs in the Czech Republic, which consequently issues the relevant policy, documents and programmes to address the demographic challenges. Similarly, the Ministry of Regional Development addresses the demographic change challenges in its policy documents of the Development of Rural Areas.

So far, the demographic change challenges and their solutions are not interlinked with the potential of bioeconomy to be applied as the official policy agenda in Czech Republic.

The **bioeconomy topic** has been included in the Czech government strategies and programmes only marginally during the last 3-4 years, mostly tackling the renewable energy, the use of biomass and the innovative value chains in wood/wooden waste processing, such as pellets and other biofuels. Also, the Czech Republic is the coordinator (together with Hungary) of the Priority Area 2 - Sustainable Energy within the EUSDR and the topic of renewable energy is accented in the Czech governmental documents.

In general, the bioeconomy topic has been most thoroughly handled by the Czech Ministry of Agriculture that issued and adopted the document of “The bioeconomy concept in the Czech Republic from the perspective of the Ministry of Agriculture for the years 2019-2024”. Although the concept is restricted to one sector only, it enables to apply the tools and funding responding to the bioeconomy goals within the Czech agriculture. The sectoral isolation and lack of inter-ministerial cooperation in the national bioeconomy policy development is still a hurdle to overcome.

The European bioeconomy-focused projects with Czech participation have an important role in the bioeconomy awareness-building thanks to a number of implemented initiatives, such as the establishment of the CzechHemp cluster organisation assisted by the NCA (DanuBioValNet), the foundation of the South Bohemian Regional Bioeconomy Association and the inclusion of bioeconomy among the smart specialisations of the South Bohemian RIS3 (POWER4BIO), the setting up of the Bioeconomy HUB (BIOEASTsUP) and the BBI Ambassadors Network (CELEBio). Further, the Platform for Bioeconomy of the Czech Republic was established in 2018 bringing together bioeconomy actors.

The topic of **rural development** has its strong background in the Czech Republic within the Rural Development Programme (RDP) and its funding tool as part of the European Structural and Investments Funds. RDP is broadly utilised by farmers and local authorities/associations for new project implementation. The RPD is governed by the Ministry of Agriculture of the Czech Republic. The Ministry is a member of the European Network for Rural Development Steering Group and is also in charge of collecting the Czech data for the document on the EC Communication on the Long-term vision for rural areas. In response to the OECD Policy Note: Rural 3.0, the Technology Agency of the Czech Republic (an organizational unit of the state on the support of research, experimental development and innovation) funds a project of RURAL 3.0 (2019-2020) led by the Czech Life Sciences University in Prague.

4. Consequences for GoDanuBio

- a) In general, the explicit bioeconomy dimension is missing in the listed demographic change and rural development devoted projects and macroregional documents in the Czech Republic. This shows the opportunity for the GoDanuBio project to materialize this new bioeconomy added value approach both in demographic change and rural development plans and strategies through the targeted dissemination of information on the GoDanuBio activities and involvement of relevant stakeholders.
- b) Similarly, the implemented projects with Czech participants, such as AgriGo4Cities and Attractive Danube, where the NCA was not involved in any way, opens the opportunity to address the Czech partners and possibly capitalise their project achievements in a bioeconomy way within the GoDanuBio project. The Czech project partners of both projects will be included in the Czech bioeconomy stakeholder list of the GoDanuBio project (WPT1 and T2).
- c) The projects with Czech participating partners, where NCA was invited to take part as another bioeconomy promoter, i.e. CELEBio, POWER4BIO and BIOEASTsUP brought (and will bring) a lot of important results both in the form of documents and reports, initiatives, strategies and actions that can be broadly capitalised in the GoDanuBio project.
- d) The project of DanuBioValNet, where NCA was the Czech partner, still has a lot of potential for broader dissemination and application of the main outputs, mainly among the cluster organisations and public sector. The involvement of clusters in the participative governance for the bioeconomic revival of rural areas in the GoDanuBio project can be a real asset for the GoDanuBio activities.