

Output Factsheet

Output title: 4.1. Modal Shift Platform for Green Bioenergy Logistics

Summary of the output (max. 2500 characters)

The ENERGY BARGE modal shift platform for green bioenergy logistics (www.energy-barge.eu) is one of the main outputs of the project. It is an Information Communication Technology (ICT) tool integrating the two project themes: biomass and bioenergy on the one, and Danube logistics on the other hand. This integration is realised by presenting the bioenergy-oriented tools “Danube Biomass and Bioenergy Atlas”, the “Good Practice Tool” and the information for Danube logistics services on one platform, merging them functionally and logically in the website’s central map view.

The platform aims at informing and engaging actors from the biomass/bioenergy and logistics sectors along the Danube and beyond regarding the region’s transnational bioenergy landscape and the relevance and benefits of Danube logistics and port infrastructure for all elements of the bioenergy supply and value chains. Consequently, both sectors shall be able to better connect transnational knowledge, facilitating a modal shift from road to water regarding biomass transport and strengthening the role of ports as bioenergy hubs.

Its main elements are:

- Joint landing page with general information;
- Biomass and bioenergy sector: atlas, good practice tool & sub-page with reports;
- Danube logistics sector: port information, service provider information, practical handbook for transport, handling and storage of biomass, sub-page with reports;
- Company register and registration form;
- Expert information contacts and option to register the own company.

The platform merges the results of all activities from WP3 (Mapping bioenergy sector) and WP4 (Green bioenergy logistics). The content was compiled by all port partners (VIA, PoVi, PoVu, BCG, MAHART, SPaP), supplemented with input by the biomass partners (BE2020, FNR, ICARST, NARIC, SDEWES, TCS, ARBIO, Nostra Silva). The task leader BCG and WP leader VIA merged and prepared the input for the implementation of the output. DIT was responsible for programming, visualisation and data management incl. safeguarding of data protection regulations. An implementation plan ensures documentation and transferability.

Contribution to the project and Programme objectives (max. 1500 characters)

The modal shift platform contributes to ENERGY BARGE’s main objective, which is to extend sustainable deployment of biomass for energy production through secure, efficient and sustainable supply chains for renewable raw materials along the river. Due to its integrative character, merging the project’s two target sectors, it addresses all project specific objectives (SO): SO1, map value chains and facilitate market uptake, SO2, better connected, interoperable and environmentally friendly transport, and SO3, practical solutions.

It addresses actors in the Danube logistics, i.e. service providers, and bioenergy, i.e. potential Danube logistics users, markets, mainly by offering:

- Transnational, cross-sectoral platform for business development, expert contacts and know-how acquisition for the Danube logistics sector in the bioenergy market, and vice versa;
- Portfolio of Danube logistics services and ports as service providers and locations for handling, transport, storage and processing of different biomass/bioenergy products;
- Proactive registration option and data base to promote own activities on the platform.

The platform contributes to encouraging a modal shift of biomass and bioenergy product transport to the Danube, increasing the cargo transport on the Danube as an environmentally friendly transport mode. It also supports actors along the transnational bioenergy supply chains to improve business contacts, know-how and logistics performance.

Transnational impact (max. 1500 characters)

The transnational impact of the modal shift platform is primarily ensured via its geographic coverage of all Danube-adjacent countries with a focus on those countries represented in the consortium for the bioenergy-related content (data availability). All Danube riparian states are covered by the Danube logistics information elements of the platform, allowing bioenergy actors along the entire navigable Danube stretch to research the offered Danube logistics services. All data and information collected to develop the platform are based on joint methodologies. Like this, the platform is of relevance for multiple actors from the entire Danube region.

The transnational impact of the platform is further ensured by the project's dissemination strategy. Firstly, a pop-up screen depicting the platform map with URL and QR code was produced and is representing the platform at the project's five B2B events. Secondly, elements of the platform are disseminated, tested and validated during the bioenergy site delegation visits, presenting it to bioenergy stakeholders from Slovakia, Croatia and Germany. Thirdly, it will be presented at the transnational final conference of the project in Budapest. Moreover, partners are asked to promote the platform in their own networks via their communication channels and take opportunities to present the platform at relevant conferences, also outside the programme area.

Contribution to EUSDR actions and/or targets (max. 1500 characters)

The modal shift platform particularly contributes to the implementation of the actions plans of Priority Area (PA) 2 "Energy" and PA 1a "Inland waterways" of the EUSDR. It contributes to an extended use of biomass for energetic purposes by exchanging best practices in transnational networks and implementing the Biomass Action Plan for the Danube Area by providing practice-oriented guidance in close coordination with regional stakeholders (objective of PA 2). Further, it supports the increase of the share of cargo transported on the Danube by 20% encouraging a shift of cargo to inland waterway transport (objective of PA1a).

Biomass is a growing feedstock for industrial utilisation, especially with regard to growing demand from biobased economy sectors. Forecasts predict a significant further growth in the upcoming years, which will require suitable logistics solutions and efficient processes along the whole value chain. The modal shift platform provides a practice-oriented tool to exploit the existing potentials and support this process of greening the industry in the Danube region.

Performed testing, if applicable (max. 1000 characters)

For the modal shift platform, testing was performed for separate tools and the platform as a whole and addressed both technical and content-related aspects.

- Project-internal testing workshop January 2018, SCOM, Zagreb;
- Project-internal testing workshop June 2018, SCOM, Bucharest;
- Presentation at national workshop, June 2018, Bucharest;
- Telephone conference with ASPs & Advisory Group members incl. feedback e-mails, May 2018;
- Project-internal feedback loops via e-mail;
- Presentation at B2B meeting in Vienna, October 2018;
- External stakeholder live demonstration and testing incl. feedback sheets at delegation exchange workshop in Bratislava, November 2018.

For these measures, a set of questions on content, usability, and technical aspects were designed. Feedback was implemented by DIT.

Integration and use of the output by the target group (max. 2000 characters)

The platform is a cross-sectoral multi-user tool, integrating the Danube biomass and bioenergy atlas and the good practice tool for bioenergy supply chain integration. It is designed to be primarily used by market actors from the biomass and bioenergy sectors and the actors from the Danube logistics sector (SMEs, enterprises). These groups as well as chambers of commerce and relevant associations were involved during the design process and the related deliverables.

By using the information and tools available on the platform, these market actors can facilitate their business development and easily access information in one place, which are often spread across multiple sources. This especially accounts for the organisation of logistics processes or the establishment of new business contacts. Also, companies from both target sectors can present themselves and promote their services via registration and updates of their company information. Public actors with interest in the relevant sectors can use the platform mainly as source of information on the transnational company landscape and expert knowledge.

Over 650 companies along the bioenergy value chains, Danube logistics providers, Danube ports and supporting institutions are represented on the platform. All these actors received a validation and information e-mail as part of the dissemination strategy. They were asked to check the available information for correctness, invited to modify data via a unique link, and given the opportunity to delete data. New companies have registered after the first dissemination events. During the final project period, it will be continued to promote the platform among private and public target groups, mainly in the Danube region itself, but also beyond the region through the partners' networks.

Geographical coverage and transferability (max. 1500 characters)

The output primarily covers the Danube-adjacent EU countries as represented in the project: Germany (Bavaria, navigable Danube stretch), Austria, Slovakia, Hungary, Croatia, Romania, Bulgaria. Regarding the display of ports and service providers, the entire navigable stretch of the Danube is represented. Thus, actors from the biomass and bioenergy sectors can acquire information and contacts for new logistics solutions along the entire Danube stretch.

The technical setup theoretically enables transfer to other regions. Firstly, an expansion along the important European waterways into other macro-regions (e.g. North-Sea, Rhine-area) along the biomass and bioenergy sector would be possible. Secondly, the platform's cross-sectoral concept could be transferred to other cargo types and value chains in the Danube region, or the entire European waterway system with a focus on cargo types potentially suitable for inland waterway transport. Thirdly, the deployment sector of biomass feedstock could be widened to the chemical-material use of biomass, expanding the target group and thus the potential business partner base. All of these transfer options offer connecting points for follow-up projects.

In order to allow for coherent transferability and replicability, an implementation plan functioning as a blueprint and documentation at the same time was designed and is accessible via the main project webpage.

Durability (max. 1500 characters)

The platform will be available after the project's lifetime for at least three years. The technical administration will be limited: no technical changes and improvements will be facilitated, but the platform will be functioning, active and editable in the shape compared to the project's end date and will remain free of charge.

BCG and VIA will be in charge of content administration, which includes updating the content with regard to statistical data and keeping track of ongoing registrations. Technical challenges will be solved by DIT via support, or the information will be handed over to BCG and VIA. After the three-year period, BCG and VIA will jointly decide about the further proceedings.

Through the email-account "webmaster@energybarge.eu", users of the website can contact the administrators (technical: DIT, content: VIA & BCG) and inform them about any given changes or submit requests and questions after the project's lifetime.

The platform offers technical options to expand its sectoral and territorial scope, depending on the internal strategies of the partners in charge and potential follow-up projects with a similar scope. First queries from market actors of Danube logistics services with interest to integrate the platform into their portfolio were received but have to be thoroughly analysed after the project ends.

Synergies with other projects/ initiatives and / or alignment with current EU policies/ directives/ regulations, if applicable (max. 1500 characters)

The potential Danube logistics users identified in ENERGY BARGE require reliable data and easily accessible information related to Danube navigation (e.g. data on fairway conditions, service providers). These requirements will be met by the service portfolio of the Danube Logistics Promotion Centres, which are set up in the DTP project "Danube SKILLS".

The Danube waterway infrastructure is addressed in the DTP project "Danube STREAM" and the Connecting Europe Facility-project "FAIRway Danube". Predictable fairway conditions, reached through a proactive maintenance strategy of waterway management authorities, are a prerequisite for a modal shift of biomass transports towards the Danube.

Potential synergies with the DTP project "DBS Gateway Region", which focusses on sea-hinterland transport development, are also exploited. This is of particular interest for inland waterway transports of biomass and bioenergy with origin and/or destination located in the Lower Danube region.

The DTP project “DANTE” aims at eliminating administrative barriers for inland waterway transports on the Danube as a joint initiative of private sector and national public authorities. Fewer administrative barriers will lead to a faster, better predictable and more cost-efficient operation of biomass transports along the Danube.

ENERGY BARGE partners actively promoted links between the mentioned projects via mutual attendance of relevant events and an exchange of expertise.

Output integration in the current political/ economic/ social/ technological/ environmental/ legal/ regulatory framework (max. 2000 characters)

The output will exploit its potential under the action plans that are stated in the ministerial conclusions on effective waterway infrastructure rehabilitation and maintenance on the Danube, which were recently signed by the Danube transport ministers. If this initiative, aiming at creating a more reliable waterway infrastructure, will be successful, it will be an important task to promote the Danube waterway to the industry. ENERGY BARGE contributes to attract new users to the Danube logistics sector.

The EU Strategy for the Danube Region (EUSDR), in particular PA1a (to improve mobility and multimodality: inland waterways), has been selected as an important transnational policy, which aims at increasing inland waterway transport (IWT) by 20% in 2020 (compared to 2010) by fostering a modal shift towards IWT.

Output 4.1 can be considered as an essential contribution to the Action Programme of the European Commission NAIADES II, which addresses the integration of IWT into multimodal logistics chains.

In the light of the revised RED, the Paris Agreement, the recent review of the EU’s Bioeconomy Strategy, and related strategic frameworks, a further EU-wide increased utilisation of biobased feedstock for energetic and chemical material purposes is expected. In order to make this development beneficial for overall EU and global climate goals, biobased life cycles have to be sustainable, which also includes sustainable transport solutions and smart production decisions. Encouraging utilisation of sustainable, EU-domestic biomass resources, domestic processing and the inland waterways as environmentally friendly transport routes may contribute to this aim. The ENERGY BARGE platform provides solutions and expert information for this approach for actors from the Danube region and beyond.