

ENERGY BARGE

Building a Green Energy and Logistics Belt

Project Code: DTP1-175-3.2

Deliverable 5.2.1

Pilot investment case study structure

20 June 2018



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About the ENERGY BARGE project

The Danube region offers a great potential for green energy in the form of biomass. The main objective of ENERGY BARGE is to exploit this potential in a sustainable way, considering the Renewable Energy Directive 2009/28/EC, thereby increasing energy security and efficiency in the Danube countries. The project brings together key actors along the entire value chain, biomass companies and Danube ports as well as relevant public authorities and policy stakeholders. The project maps value chains and facilitates the market uptake of biomass, supports better connected transport systems for green logistics and provides practical solutions and policy guidelines. The Agency for Renewable Resources (FNR) coordinates the ENERGY BARGE project consortium with fourteen partners from Austria, Bulgaria, Croatia, Germany, Hungary, Slovakia and Romania.



Project coordinator

Agency for Renewable Resources

Fachagentur Nachhaltende Rohstoffe e.V.	FNR	Germany
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Project partners

BioCampus Straubing GmbH	BCG	Germany
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Deggendorf Institute of Technology	DIT	Germany
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Austrian Waterway Company	VIA	Austria
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Port of Vienna	PoVi	Austria
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Bioenergy2020+ GmbH	BE2020	Austria
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International Centre of Applied Research and Sustainable Technology	ICARST	Slovakia
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Slovak Shipping and Ports JSC	SPaP	Slovakia
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National Agricultural Research and Innovation Center	NARIC	Hungary
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MAHART-Freeport Co. Ltd.	MAHART	Hungary
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International Centre for Sustainable Development of Energy, Water and Environment Systems	SDEWES Centre	Croatia
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Public Institution Port Authority Vukovar	PoVu	Croatia
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Technology Center Sofia Ltd.	TCS	Bulgaria
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Romanian Association of Biomass and Biogas	ARBIO	Romania
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Federation of owners of forests and grasslands in Romania	Nostra Silva	Romania
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About this document

This report corresponds to “D 5.2.1 Pilot investment case study structure” of the ENERGY BARGE project. It has been prepared by:

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Actual submission date:	2018-06-20
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Task	D 5.2.1
Lead contractor for this deliverable	MAHART Freeport Co. Ltd.
Editor(s)	N/A
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1.1	19/4/2018	Zoltan Haasz/MAHART		First draft
1.2	3/5/2018	Zoltan Haasz/MAHART Thies Fellenberg/FNR	Finalisation of the draft	Finalised
1.3	29/5/2018	Zoltan Haasz/MAHART Thies Fellenberg/FNR	Comments from the project partners	Finalised
2.0	20/6/2018	Zoltan Haasz/MAHART Thies Fellenberg/FNR	Quality review QAM	Finalised



Background

The deliverable “D 5.2.1 “Pilot investment case study structure” is based on the task as described in the latest approved version of the Application Form of the project ENERGY BARGE (Project Code: DTP1-175-3.2).

- Activity 5.2. *Pilot actions in the field of processing and handling of renewable energy resources* (Lead: MAHART)

In the framework of Activity 5.2, two transnational pilot investments are carried out by the Port of Vienna (PoVi) and MAHART-Freeport in Budapest to create or increase their capacity in biomass logistics to support the development of new value chains and to demonstrate the effectiveness of a small-scale pilot as an unprecedented solution in the ports. At the same time, the pilot actions create transferable solutions to other partners with a transnational learning effect (also outside the project) along the Danube, which will be reflected in Activity 5.3. Therefore, special emphasis is put on transnational learning activities and outreach in alignment with the other work packages. The pilot investments have been pre-selected as a result of a market review and verification with the biomass industry by the participating ports. The financial sustainability of the investments was also taken into consideration in line with practicability, transferability and durability (operation of the equipment up to five years beyond project end).

MAHART (Port of Budapest) and the Port of Vienna (PoVi) prepare the case studies (D 5.2.2), following a common case study structure (as D 5.2.1 Pilot investment case study structure). The following topics are included: set-up of the pilots, description of the implementation process, potential difficulties and encountered barriers, synergy effects, transferability of the pilots to the participating ports, durability and ownership. Furthermore, first results of the implemented measures and their evaluation are considered in the report. Results are disseminated on the project events and via individual discussions by the participating ports.

The biomass/bioenergy market embedment of MAHART and the Port of Vienna is different. In case of the Port of Vienna (PoVi), biomass is currently handled in the port on a small scale and its development potential on the energy market is increasing. In case of MAHART, it is a new product in the port considered to have a high potential. Both ports invest into small scale equipment as pilot investment.

The ENERGY BARGE consortium jointly evaluates the pilot investments. All port partners (BCG (DE), PoVi (AT), SPAP (SK), MAHART (HU), PoVu (HR)) are involved in the transfer of the results. The pilot actions are coordinated by MAHART.

Content

1. Executive Summary (max 2 pages).
2. Presentation of the investment: what was exactly purchased, if there was any tender process, if permissions were needed or not, costs of the investment, operational costs, 1-2 photos of the equipment, technical illustration. Max 3 pages.
3. Set-up of the pilot cases, reasons for this particular pilot investment and selection process with respect to the biomass/bioenergy market: because it is needed/useful as an additional service in the port, because it can open markets; which targets are envisaged, which sort of biomass is envisaged to be handled, biomass characteristics relevant for the handling, e.g. water content, density), who will supply the biomass, where are potential customers, how long did the implementation take? PoVi also shall describe why the pilot was modified. Max 3 pages.
4. Risks and difficulties encountered: were there any risks in the process – financial, technical, management etc. and how it was handled, if any potential difficulties and barriers were encountered. Max 2 pages.
5. Durability and ownership: how the investment will be operated, who will be responsible for it – taking into account the 5-year obligation to own and operate. Which additional investments might be needed to improve the handling of the new type of cargo, e.g. additional storage locations? Are other types of biomass products needed to ensure a sufficient amount of operating hours and be able to guarantee the durability? Max 3 pages.
6. First results of the operation: if it is working as planned, what is handled with it, how it is used, level of operation hours, are new customers attracted working in this new market segment, was there an increase to a certain amount of handled biomass etc.? Max 3 pages (incl. photos).
6. Synergies and transferability: synergy effects and transferability of the pilots to the partnership and specifically to participating ports: short description, if the pilot investment can be implemented in the other four ports based upon their pre-feasibility studies or individually discussing it with the other ports, also taking into consideration, if any modifications are required to ensure the transferability. Is there a market potential? MAHART: particularly to PoVu and SPAP, PoVi: all the other four ports. Max 2 pages.
7. References
8. Annex
9. Contacts

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