Interreg
Danube Transnational Programme
ENERGY BARGE

ENERGY BARGE

Building a Green Energy and Logistics Belt

Project Code: DTP1-175-3.2

Deliverable 4.1.1

Report on the exchange workshop with a good practice port in Western Europe to define benchmarks and success factors for the handling and storage of biomass

14 November, 2017

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Content

I. 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 will bring 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. FNR coordinates the project with its fourteen partners from Austria, Bulgaria, Croatia, Germany, Hungary, Slovakia and Romania.

Project coordinator

Agency for Renewable Resources		
Fachagentur Nachwachsende Rohstoffe e.V.	FNR	Germany

Project partners

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

II. About this document

This report corresponds to D 4.1.1 Report on the exchange workshop with a good practice port in Western Europe of ENERGY BARGE. It has been prepared by:

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1.2	*2017-11-07*	*Simon Hartl, Benedikt Grath (VIA)*	*First draft of the D 4.1.1 report on the exchange workshop*	*finalised*
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2.0	*2017-11-14*	*Simon Hartl, Benedikt Grath (VIA)*	*Final version*	*finalised*

III. Executive Summary

The current deliverable D 4.1.1 contains a visit report about the exchange workshop which was carried out on 29 and 30 May 2017 in Bavaria, Germany, with the bayernhafen group, a good practice example for the development of biomass hubs along waterways in Western Europe. During this workshop the ENERGY BARGE team visited the port of Bamberg and the port of Aschaffenburg. Both ports are located within the Main area in Bavaria and are managed by the bayernhafen group.

A delegation consisting of several WP4 project partners participated at the exchange workshop. Both ports have their thematic focus on biomass logistics and are well-suited for a fruitful know-how exchange within the ENERGY BARGE project. The port of Bamberg and the port of Aschaffenburg and their economic strategies are presented in detail in this report.

In the port of Bamberg mainly agricultural and forestry goods are handled. The port has a total transshipment volume of 3.2 million tons per year. The visited company in the port was the BayWa AG, which is an international company operating in the fields of agriculture, building materials, energy and agricultural technology. In the port of Bamberg, the market basically organizes itself; there is no specific cluster strategy implemented by the port management. The port site has developed into a well-known biomass hub due to various regional potentials and a unique concentration of economic players in the agricultural sector.

The port of Aschaffenburg has an annual transshipment volume of around 4.1 million tons and holds two port basins. The visited company (Bioenergie Aschaffenburg GmbH) operates a biomass heating plant with a combined heat and power system. The outstanding characteristic of the port of Aschaffenburg is its proactively managed cluster strategy with one of the three focus areas being on the biomass and bioenergy sector. It successfully uses the synergies between the companies located in the area as well as their value chains. The port management is actively involved in the development of new value chains through attracting new companies into the port and providing favourable conditions for the agricultural sector.

The conclusions and the findings of the exchange workshop are discussed as well in the present report. A network of synergetic companies at or in the vicinity of port sites can create an increased added-value for all involved enterprises at the port location. The benefits are for example reduced logistics costs, coherent input and output flows and other economies of scale. Also, there is a marketing and image effect visible to such a coherently managed development strategy that can result in a competitive advantage.

1. Background

This deliverable "D 4.1.1 Report on the exchange workshop with a good practice port in Western Europe to define benchmarks and success factors for the handling and storage of biomass" is mainly 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 4.1 Analyze the requirements of the bioenergy industry regarding Danube logistics services* (Lead: VIA)

To achieve its specific objective to support the development of a better connected, interoperable and environmentally-friendly transport system for biomass logistics, ENERGY BARGE needs to analyze the logistics requirements of the bioenergy industry in the first phase. This is done via transnational workshops focusing on internationally recognized, good practice examples and direct contacts with industry stakeholders and supply chain managers.

To integrate international expertise at an early stage, ENERGY BARGE organized an exchange workshop with experts from Western Europe on 29 and 30 May 2017. The goal was to identify a location for this exchange workshop with good practice characteristics outside the program area in the Danube region. Moreover, the characteristics of the surrounding area of the good practice locations should be comparable with those of the ENERGY BARGE partnering ports, meaning these should be located in agriculturally or forestry shaped areas. Given the fact that the German bayernhafen group successfully operates ports with focus on biomass logistics in the Main area which is also an area quite strongly characterized by agriculture, this good practice partner seemed more than suitable for an international exchange with the ENERGY BARGE team. Therefore the partners involved in implementing Output 4.3 and the deliverable D 4.1.1 organised a port visit to the bayernhafen site in Bamberg in accordance with the Application Form. On recommendation and invitation of the contacted port management the team also visited the bayernhafen site in Aschaffenburg including the bioenergy plant of the Bioenergie Aschaffenburg GmbH.

The exchange with representatives of these important river port locations for biomass logistics initiated a first know-how transfer to the Danube region and will help to evaluate firstly benchmarks and success factors regarding biomass logistics in ports and secondly shortcomings and barriers regarding investments, services and information needs of potential customers to be addressed by the project in following activities.

The findings and conclusions drawn from the international know-how transfer and the discussions with potential users of Danube logistics from the bioenergy industry will be particularly integrated in the overall assessment of logistics requirements of raw materials, intermediates and end products within bioenergy supply chains (D 4.1.3). This Deliverable will in further consequence provide guidelines for the elaboration of Deliverables and Outputs created in Activities 4.2 and 4.3.

The following chapters summarize the findings and conclusions from the exchange workshop with the bayernhafen group in Bamberg and Aschaffenburg and an overview of the know-how gained for the ENERGY BARGE project.

2. Description of the bayernhafen group and the visited ports

The bayernhafen group operates six port locations in Bavaria: Aschaffenburg, Bamberg, Nuremberg, Roth, Regensburg and Passau. Each year about 30 million tonnes of goods are handled by ship, rail and truck. The public company's aim is to further strengthen the position of the port as logistics hubs for multimodal transports. Given the fact that Bavaria in general and the Main area where the ports of Bamberg and Aschaffenburg are located particularly are internationally regarded as hot spots for growing agricultural and forestry goods, it seemed obvious that an exchange workshop with the bayernhafen group will be fruitful for the ENERGY BARGE project team.

2.1 Port of Bamberg

2.1.1. General profile of the port

The Port of Bamberg was built in 1921. Nowadays, it has a total turnover of 3.22 million tons per annum. From 2014 to 2016, the number of ships increased by 5% - at the same time the number of transhipment increased by 4.5%. On an area of 96 ha, 70 companies are located in the port with the main focus on transport, logistics, recycling and services. The Port of Bamberg has 2 basins and currently employs 25 employees. The focus of the port is on agricultural and forestry products, which account for 30.9% of the handled cargo. In addition, mainly food and feedstuff as well as fertilizers are handled.

2.1.2. Visited company in the port (biomass focus) – BayWa AG

BayWa AG was founded in Munich in 1923 and now has more than 17,000 employees in more than 3,000 locations spread across 34 countries. In Bamberg, 25 employees are employed in the fields of agriculture, building materials, energy and agricultural technology. In Bamberg, 33,000 tons of different crops (e.g.: wheat, grain, feeders, malting barley, triticale, etc.) can be stored in silos.

2.2 Port of Aschaffenburg

2.2.1. General profile of the port

The Bavarian port of Aschaffenburg was built in 1919 and covers an area of 157 ha. In the port area, 60 companies with 2,500 employees are located. The annual transhipment volume is around 4.1 million tons. The port basin 2 has a depth of 4 meters. Port basin 1 is 2.90 m deep and is now expanded to a depth of 3.10 meters. This will bring transport cost savings of 10% as large 350 m standard Rhine ships will now be able to enter the basin.

2.2.2. Visited company in the port (bioenergy focus) – Bioenergie Aschaffenburg GmbH

The public company operates a biomass combined heat and power (CHP) plant in the Port of Aschaffenburg since 2010. The combined heat and power system has the advantage that the production volume does not fluctuate so much seasonally. In total 17.4 Mio. EUR were invested including a briquette production site supplying private households with this sustainable fuel. Bioenergie Aschaffenburg produces 10,000 MWh of bioenergy – this corresponds to a consumption of 2,900 households – and 35,000 tons of wooden briquettes each year.

3. Strategies to position the ports as biomass logistics hubs

Although the two port sites in Bamberg and Aschaffenburg are managed by the bayernhafen group, the local strategies to develop the locations with strong focus to biomass logistics differ to a large extent. Both ports offer high-quality handling equipment and storage capacities for agricultural goods. In addition Aschaffenburg has gained vast experience on the handling of forest biomass and wood products in the last years.

3.1. Port of Bamberg

The Port of Bamberg defines itself as a landlord port which lets sites to customers from different economic sectors. Currently the port area is fully let and the port is constantly trying to buy new land. The most important customer is BayWa AG. The company operates its own silos with an overall capacity of 33,000 tons as well as its own handling equipment with a transhipment capacity of 150 tons/hour. However, there are also other agricultural trading companies located in the port, for example the Agravis, which is a direct competitor of BayWa AG. The handled biomass mainly originates from Unterfranken (a Bavarian administrative district) adjacent to Bamberg which lies in Oberfranken. 90% of the volumes – in total 150,000 tons per year - are exported. 60,000 tons are harvested directly in the Bamberg area. Grain and maize go into the

bioenergy production which is primarily used for biogas but BayWa AG does not operate any facilities itself.

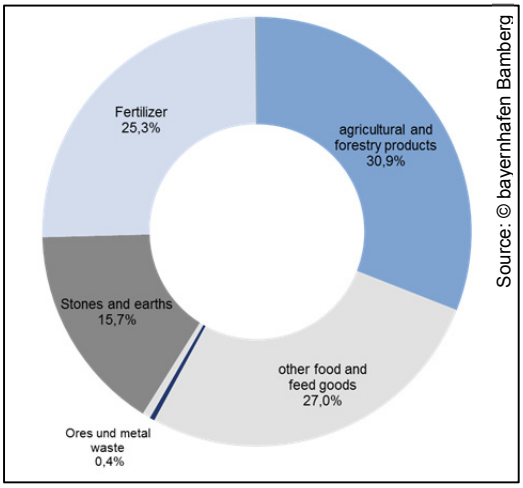

Figure 1: Share of handled goods at Port of Bamberg

Given the fact that the company is also one of the biggest fertilizer traders in the region, storage capacities of 15,000 tons are also located in the Port of Bamberg. Every year 45,000 tons are produced – a fertilizer mixing plant allows to mix different fertilizer types. All this factors lead to an impressing share of 30% for agricultural goods out of the whole transhipment volume (see Figure 1). Together with the share for fertilizers and for food/feedstuff more than 80% of the transhipment volume refers to the agricultural sector. This means high potential and vast experience in the field of biomass logistics.

In contrast to the Port of Aschaffenburg, the Port of Bamberg does not directly apply a cluster strategy for new companies settling in the port. According to Mr. Schrammel, the representative of the port management, the market basically organises itself and the management does currently not recognize a need to proactively stimulate since demand for production and logistics sites in the port is on a constantly high level.

3.2. Port of Aschaffenburg

The Port of Aschaffenburg defines itself as a location respectively site architect and actively coordinates interfaces as well as promotes synergies between the companies located in the port area.

The port management organizes new company sites in the port according to a cluster strategy. It all started when a conventional coal power plant was closed down, opening up a vast plot for new settlements and new companies had to be attracted to the site. The city of Aschaffenburg at the same time also aimed at building a new power plant to compensate the loss. The port as the owner of the land wanted to let the sites to private companies based on a lease. Therefore the port management decided to develop a timber cluster in 2002 to compensate the loss of added value and jobs in the port area. The idea was based on a cluster concept to minimize costs for timber logistics.

The starting point was the already established company Sappi Stockstadt GmbH in close proximity to the port (see Figure 2). The company produces high quality fine paper and pulp. Small pieces of wood and woodchips are side products in the production cycle. Together with the company the port was looking for ways to use as well as to recycle them and to keep material cycles as productive and efficient as possible. Companies were selected, contacted, and

ideally settled in the port on the basis of these factors in order to create synergies wherever possible.

Based on these considerations a biomass heating plant was located in the port site, this project was carried out in cooperation with the municipal company "Stadtwerke Aschaffenburg". Another important settlement is the sawmill of the company Pollmeier Massivholz GmbH & Co. KG. It has a saw capacity of 300,000 tons per year and a bearing area for 100,000 m^2. This fits perfectly in the wood cluster approach. The following slide (Figure 2) was presented by Mr. Filippi, the General Manager of the bayernhafen Bamberg, at the exchange workshop with ENERGY BARGE shows main value chains in the timber cluster located at the port location.

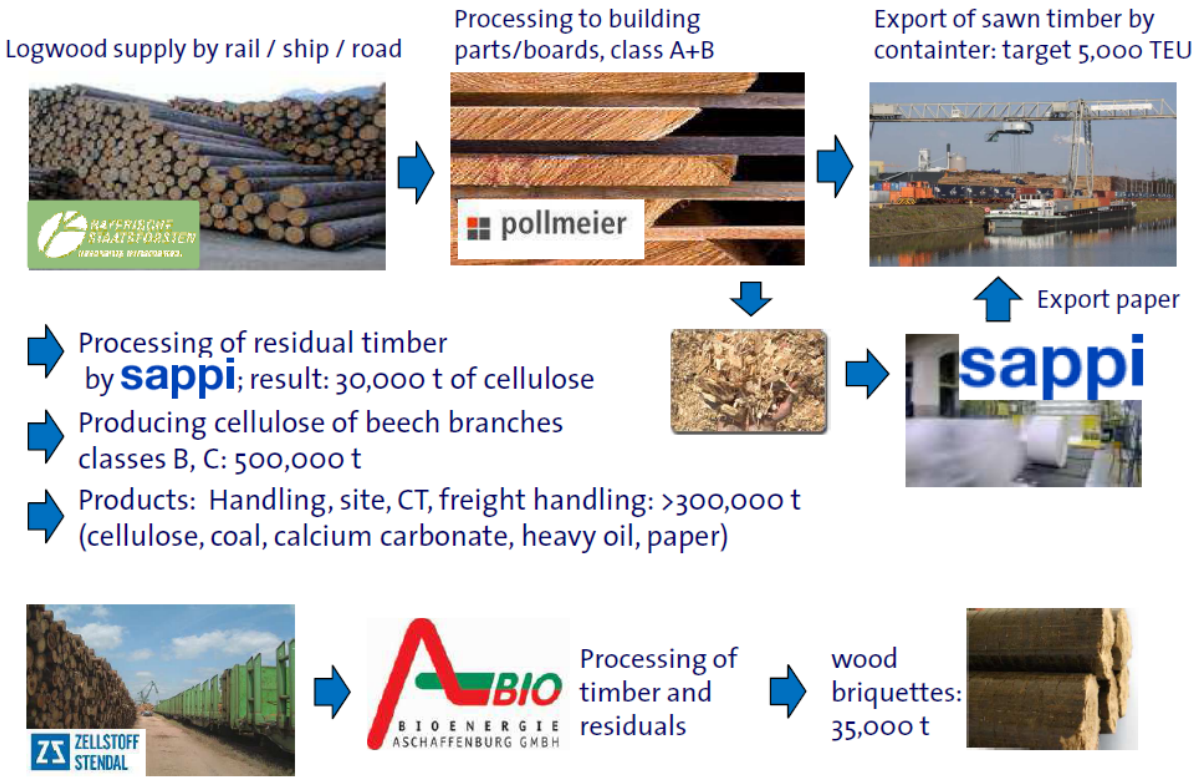

Figure 2: Overview of companies in the timber cluster of Port of Aschaffenburg; © bayernhafen Aschaffenburg

Nowadays the branch structure in the port is divided into three sectors, each of which representing a cluster: Logistics, Production (including renewable energy and wood products) and Recycling. The focus, therefore, is clearly on the establishment of a targeted settlement strategy along different value chains. The port management tries to encourage waterside transhipment, e.g. of bio-based raw materials. However, the port of Aschaffenburg has its own railway station and 80% of the port area can be reached by train. Currently raw materials and biomass is therefore hardly transhipped on the water side. On the other hand produced products (paper, etc.) are regularly transhipped to inland vessels. This means that a part of the value and supply chain represented in the cluster is handled via waterway logistics, while another part is transported via rail, resulting in a good example of a multi-modal supply chain.

Mr. Filippi considers it particularly important for ENERGY BARGE to include value chains outside the narrower bioenergy production processes in the project, such as material use and recycling of biobased feedstock. This approach corresponds with the cascading use principle which is relevant for a sustainable development of a European bioeconomy. If this is assured, he believes the project has great potential.

4. Benchmarks and success factors

The visit of the ENERGY BARGE project team to the bayernhafen group with its good practice port locations in Bamberg and Aschaffenburg facilitated know-how exchange from Western Europe to the Danube region. The following benchmarks and success factors for an effective exploitation of synergies between the bioenergy industry and inland ports were defined during the exchange workshop.

4.1. Exploit synergies between material use and energetic use

From a logistics point of view the distinction if agricultural and forestry goods are processed in material use or energetic use is a minor one. The requirements with regard to handling, storage and transhipment of biomass feedstock and intermediaries to inland vessels are more or less the same. Some more knowledge and specifications might potentially have to be acquired regarding logistics requirements of finalized biobased products in terms of whether these would require specific equipment or vessels but potentially, there will not be any outstanding challenges for the majority of possible products in comparison to bioenergy products (liquids, bulk, break bulk).

This means that new bioenergy projects in inland ports can take advantage of existing experiences and know-how of port operators. As the visited good practice ports and also the Danube ports involved in ENERGY BARGE are located in regions with a well-established and highly-productive agricultural sector, the framework conditions for biomass logistics including the use of the Danube waterway are promising and a transfer of practice should be theoretically feasible.

The good practice example of the timber cluster in the Port of Aschaffenburg shows that a network of synergetic companies can create an increased added-value for all involved enterprises. Success factors are among others reduced logistics costs, coherent input and output flows and other economies of scale.

4.2. Locate bioenergy plants in inland ports

The visited bioenergy plant operated by Bioenergie Aschaffenburg GmbH in the Port of Aschaffenburg is clearly a benchmark for similar projects which will be developed in future in the Danube region.

Its combined heat and power system has the advantage that the production volume does not fluctuate seasonally so much and that there is a decrease (mainly) in the summer. The district heating network has been expanded to provide 3,000 to 4,000 households and public facilities throughout the city with heat.

The companies located in the port use the produced energy partly for heating as well as in the production processes. Up to now, briquettes were produced from sawdust (from the Pollmeier sawmill) with the provided heat, and thus 60,000 tons of damp chips were dried. Now, however, there is a sewage sludge drying plant under construction which will be then used for heat generation. Pollmeier now wants to utilize the sawdust itself, the profitability of the briquette production was no longer given. This example of flexibility in established process chains however shows that developing functioning clusters frees locations to a certain extent from lock-in effects and dependencies.

The fuel (in terms of wood chips) is provided in two quality levels by four different suppliers which are located in a radius of 150 km (decentral, regional) and is mixed before conveyed into the plant. The biomass mainly consists of landscape maintenance material and green waste. For the poorer quality 40 to 50 EUR per ton dry mass (DM) are paid, the better quality accounts for 70 EUR per ton DM. The storage has a capacity of 10,000 tons of biomass which corresponds to a DM of about 3,500 tons. The power plant has a capacity of 1.3 MW electrical power and 8 MW thermal power. The process of the power plant operation is called Organic Rankine Cycle in which silicon oil instead of water vapor is used as working medium. The advantage is that the process can proceed with lower heat and pressure (here 300°C and 8 to 10 bar). Therefore, the pipes of the power plant can be utilized in smaller dimensions and have less regulatory requirements which saves investment costs. However, this method is less efficient in terms of power generation since it is only one biomass boiler which also covers the peak as well as low load. The plant is operated 8,000 hours per year and is stopped only once a year for about 1 to 2 weeks for maintenance work. In addition, the plant is cleaned once a year for 3 to 4 days.

In operation, 50 tons of fly ash and combustion residues are generated each year which are contaminated with heavy metals and pollutants. In total, 2,000 tons of ash are produced. This comes moistened from the system to avoid self-heating. The ash is mainly used as a fertilizer.

4.3. Identify the specific advantages of inland waterway transport and use them

The fact that inland ports offer access to inland waterway transport - an additional mode of transport - is a major location advantage. The main specific advantages of inland waterway transport can be summarized as follows:

- **Cost-efficient means of transportation**
  Due to its enormous loading capacities, inland vessels are particularly suitable for the transport of large volumes of bulk goods as well as for high & heavy cargo.
- **24/7 availability and ample spare capacity**
  Waterways offer ample spare capacity and round the clock service. There are no weekend or night driving bans or restrictions.
- **Environmentally friendly mode of transport**
  A ship can transport one ton of goods over 370 km using the same amount of fuel that a lorry uses to transport the same amount of goods a mere 100 km. 70% less fuel consumption also means 70% less CO_2 emissions.

These advantages of course do not provide benefits for each type of good, cargo quantity and transport relation. Therefore it is essential to first define value chains where inland waterway transport can play a substantial role in the logistics mix. In the best case scenario this analysis could be carried out in close cooperation between the port operator and the located production and logistics companies. One important success factor is to consider not only the bioenergy sector as exclusive starting point for setting up inland waterway transports. At the same time bioenergy value chains can also be a trigger for Danube logistics chains in other economic sectors. Clearly, bioeconomy requires value and supply networks rather than chains – considering relevant "neighbouring" sectors such as e.g. the construction or paper industry could accommodate this requirement.

In the case of Port of Bamberg the following illustration on the next page (Figure 3) shows the corn supply chain including all types of goods and products that are transhipped to inland vessels.

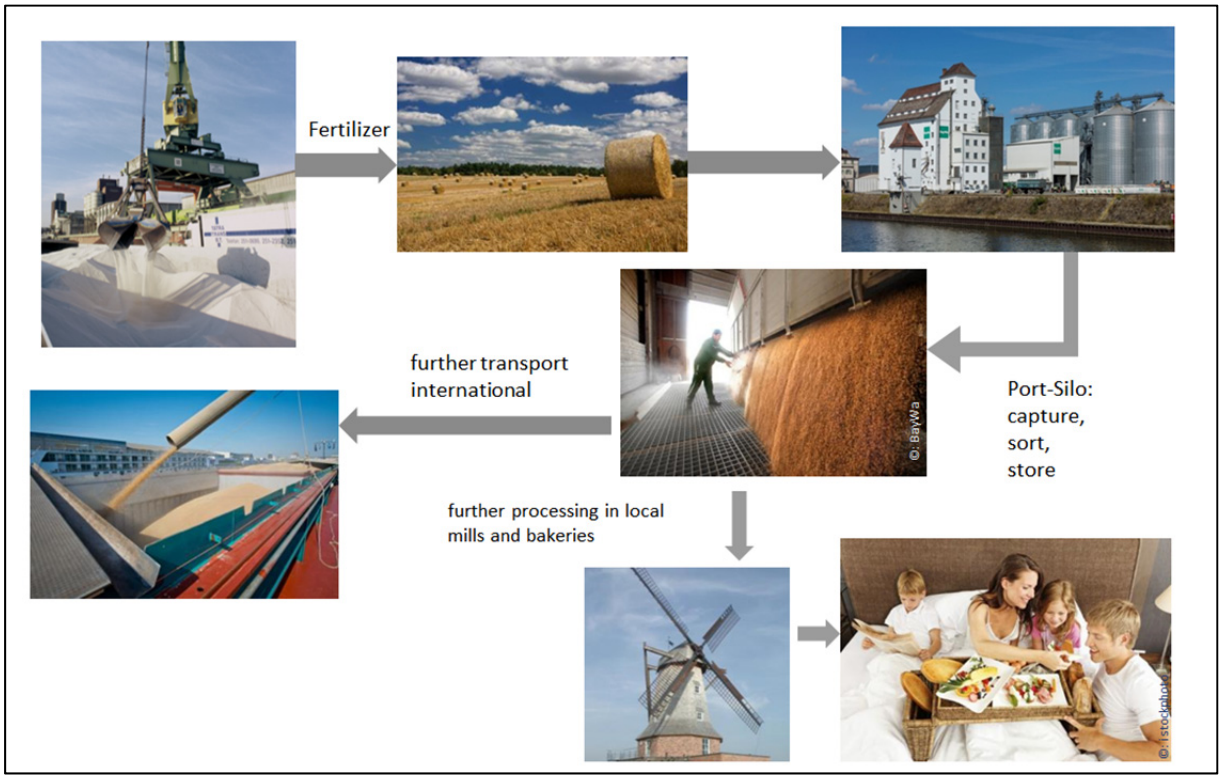

Figure 3: Supply chain of corn and goods that are transhipped to inland vessels; © bayernhafen Bamberg

In the case of the bioenergy plant in Aschaffenburg wood as a raw material for energy production is currently not transported by inland vessels to the site. The operator however currently evaluates if the dried sewage sludge as a by-product could be shipped on the waterway to a heating plant in Schweinfurt (distance around 200 km).

A prerequisite for the attractiveness of inland waterway transport are suitable fairway conditions such as sufficient fairway depths. A better load factor of the employed ship units will reduce the transport costs per ton significantly. The Port of Aschaffenburg is aware of this fact and will now deepen one of its port basins to 3.10 meters. This brings a transport cost saving of 10% since large standard Rhine ships will then be able to enter the basin. This will particularly be a clear advantage for vessels entering the port with larger volumes of agricultural and forestry goods (bulk cargo).

4.4. Invest in efficient handling equipment and storage capacities

Suitable handling equipment and storage capacities are available for biomass logistics in both ports, Port of Bamberg and Port of Aschaffenburg. From a technical point of view, it does not make any difference if the facilities are operated by a public or a private company. There are also management models which have a mixed character aiming at a balance between public (port operators) and private (port companies) interests. It will be one of the main tasks of all participating Danube ports to organise the purchase and operation of port equipment in an efficient way.

The exchange workshop partner in Bamberg defined the performance of port transhipment equipment by the hourly output of each individual crane. The performance of 150 tons per hour of the crane that BayWa uses in the port seems to be a suitable benchmark for the other participating Danube ports. Covered storage capacities are required for biomass to protect the goods from adverse weather conditions and moisture. Agricultural bulk goods such as grain, soya and corn are stored in silo installations. These facilities allow the storage of seasonal goods over longer time periods, while guaranteeing storage and treatment such as dehumidification without quality loss of the product. Goods in silos can be used continuously or transhipped onwards to other modes of transport.

4.5. Analyse current policy trends to avoid false investments

The European and national policy frameworks for the bioenergy industry influences to a large extent the potential biomass volumes which could be handled, stored and processed in inland ports. The port representatives mentioned in the exchange workshop that the German bioenergy market was particularly volatile in the last few years due to changing political objectives. In the Port of Aschaffenburg an implementation plan for a biodiesel plant including a business plan and financing was already ready for realisation, however the public financing was cancelled due to a negative image of biodiesel production released in several press articles.

This underlines the importance of a close cooperation between ENERGY BARGE WP4 focusing on logistics and WP6 focusing on the policy framework. The ENERGY BARGE team will jointly analyse policy trends on European level while single partners will focus on the regional policy context. This will be a success factor to avoid false investments. Also, it will be an important task of the ENERGY BARGE project to function as a multiplier and messenger to political decision makers on several levels about the importance of homogeneous, reliable and sensible political framework conditions.

5. Conclusions and lessons learnt

The exchange workshop described in this report shows that an active port management plays an essential role to foster a vibrant business environment at port sites and that comprehensive settlement strategies are needed to attract potential customers from the bioenergy industry to port locations and make them interested in using inland waterway transport in their logistics chains.

The bayernhafen group – which was analysed as a good practice example during the workshop - implements a successful and effective cluster strategy. The visited ports of Bamberg and Aschaffenburg particularly act as logistics hubs for the handling, storage and processing of biomass by exploiting synergies and flexibility along the value chains of all involved companies.

Thus a network of synergetic companies leads into an increased added-value for all involved enterprises on the port location. The benefits are among others reduced logistics costs, coherent input and output flows as well as other economies of scale.

The most important benchmarks and success factors identified in the exchange workshop can therefore be summarized by the following recommendations for actions:

- **Exploit synergies between material use and energetic use**
  The findings of the exchange workshop proved that a targeted and close cooperation between the stakeholders from the bioenergy sector and other biomass-processing industries should be actively fostered and encouraged by the ENERGY BARGE project. The business-to-business meetings foreseen in Activity 4.3 can particularly act as neutral platforms for these business contacts.
- **Locate bioenergy plants in inland ports**
  A proactive support from the port management for new biomass-related value chains can create a favourable environment for the development of new bioenergy plants in inland ports. In addition to the supply of the plant with biomass, intermediates and side products generated during the production of energy and heat can form a promising cargo for inland waterway transport. Deliverable 4.1.3 will therefore analyse logistics requirements of relevant raw materials, intermediates and end products.
- **Identify the specific advantages of inland waterway transport and use them**
  In addition to the connection with railways and road networks, inland ports provide access to inland waterway transport which offers particular advantages for the bioenergy industry through its high loading capacity and low transport costs. The possibility to use this additional mode of transport therefore forms a locational advantage compared to other business and industrial areas. Activity 4.2 will particularly focus on the identification of specific advantages of inland waterway transport for particular biomass logistics chains.
- **Invest in efficient handling equipment and storage capacities**
  Investments in efficient handling and storage facilities lead to an increased competitiveness of inland waterway transport. The pre-feasibility pilot studies to

prepare large-scale investments as well as the pilot investments foreseen in Work Package 5 of ENERGY BARGE will therefore enhance the attractiveness of the involved ports for the bioenergy industry.

- **Analyse current policy trends to avoid false investments**
  Another essential finding of the exchange workshop was that a cluster strategy focusing on bioenergy will only succeed if it will fit well into the corresponding political framework conditions and funding landscape. These framework conditions will particularly be analysed within Work Package 6 of the ENERGY BARGE project.

Annex I: Impressions from the exchange workshop

Day 1 – Port of Aschaffenburg (meeting room)

Day 1 –Bioenergie Aschaffenburg GmbH (on-site)

Day 2 – Port of Bamberg (meeting room)

Day 2 –Port of Bamberg (on-site)

Day 2 –Port of Bamberg (on-site)

Annex II: Programme Exchange Workshop

Agenda 29th May 2017

11.15 – 11:45	Welcoming by the branch manager	**Mr. Filippi**
	Presentation bayernhafen Aschaffenburg	**Mr. Filippi; Ms Asp**
11:45 – 12:45	Short presentation workshop members and Energy Barge ▪ Port of Vienna ▪ viadonau ▪ Bioenergy2020 ▪ BioCampus Straubing GmbH ▪ MAHART-Freeport ▪ Port Authority Vukovar	**All participants**
	Afterwards – Exchange of Experiences / Business Coffee ▪ Questions & Answers	**All**
12:45 – 13:30	Port-Tour	**All**
13:30 – 14:15	Visit Bioenergie Aschaffenburg GmbH	**Mr. Leckert; All**
14:30	Departure to Bamberg	**All**

Agenda 30th May 2017

09:30 – 09:45	Welcoming	**Bamberg**
9:45 – 10:15	Short presentations bayernhafen and BayWa AG Michaela Wöhrl, Branch Manager bayernhafen Bamberg and Peter May, Managing Director Agrar, Region Ober/ - Mittelfranken	**Represented by Mr. Schrammel** **Mr. Krapp**
10:15 - 11:15	Short presentation workshop members and Energy Barge ▪ Port of Vienna ▪ viadonau ▪ Bioenergy2020 ▪ BioCampus Straubing GmbH ▪ MAHART-Freeport ▪ Port Authority Vukovar Afterwards – Exchange of Experiences / Business Coffee ▪ Questions & Answers	**All participants**
11:15 – 11:45	Visit BayWa AG Steffen Renner, Head of Operations Agrar Bamberg	**All**
11:45 – 12:15	Port-Tour	**All**
12:15	End	**All**

Annex III: List of participants

Surname	First Name	Company	Acronym	Port Aschaffen-burg	Port Bamberg
Dißauer	Christa	Bioenergy2020+	BE2020	x	x
Gvozdic	Milica	viadonau	VIA	x	x
Hartl	Simon	viadonau	VIA	x	x
Haasz	Zoltan	MAHART-Freeport	MAHART	x	x
Erkel	Zoltan	MAHART-Freeport	MAHART	x	x
Sztilkovics	Szávó	MAHART-Freeport	MAHART	x	x
Kaufmann	Ann-Kathrin	BioCampus Straubing GmbH	BCG	x	x
Dobler	Verena	BioCampus Straubing GmbH	BCG	x	x
Rojko	Peter	Port of Vienna	PoVi	x	x
Timler	Marian	Port of Vienna	PoVi	x	x
Liebl	Günther	Port of Vienna	PoVi	x	x
Šimunović	Vjekoslav	Port Authority Vukovar	PoVu	x	x
Bićanić	Đuro	Port Authority Vukovar	PoVu	x	x

Interreg
Danube Transnational Programme
ENERGY BARGE

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