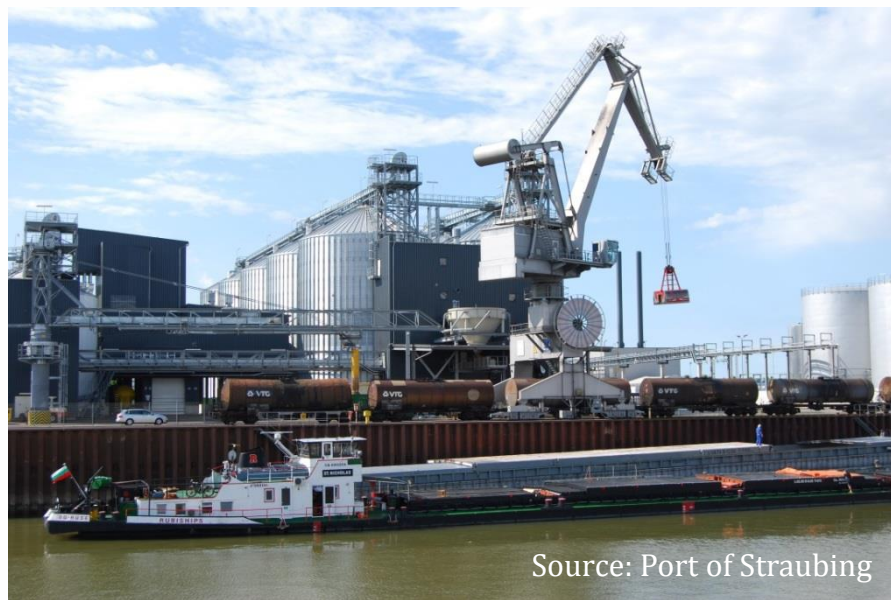


ENERGY BARGE

Newsletter #9



Source: Port of Straubing

Welcome to the 9th newsletter of the ENERGY BARGE project!

In this issue of the newsletter we take a look at the bioenergy landscape in our partner countries along the Danube. In this context, we set up an inventory of potential users for Danube logistics from the bioenergy industry by applying logistic criteria.

We also would like to draw your attention already to the ENERGY BARGE online platform, whose first part with information on the biomass landscape will go online in June 2018. The online platform shall facilitate a cross-sector learning and contribute to a modal shift to Danube logistics.

We hope you enjoy reading!
The team of ENERGY BARGE



The partners

There are 15 partners
involved in the project
from 7 countries:

7 partners from the biomass/bioenergy sector

6 partners from the logistics sector
including 5 ports

3 partners from the field of research
that provide either special knowledge
needed for the implementation of the
project (spatial modelling) or who have
special knowledge and networks in
their regions (biofuels and biomass).



Biomass and bioenergy company landscape in the Danube corridor

The ENERGY BARGE team prepared a holistic and intuitive inventory on the biomass and bioenergy company landscape in the Danube corridor enabling identification of business partners along the bioenergy supply and value chain. Once integrated in the project's online Danube biomass and bioenergy atlas, which will be launched in June 2018, it will serve as a business partner identification tool beyond the classical bioenergy value chain.

The Danube biomass and bioenergy atlas will generate a sort of “yellow pages” of the biomass-bioenergy actor landscape in the Danube region and shall be at disposal for all business actors looking for new partners in their own country or other Danube region countries, as well as for logistics actors looking for potential customers. The consortium identified **548 companies** along the value chain in the seven partner countries. It will also be possible to register one's own company in case it has not been listed by the project consortium before. Moreover, public actors shall benefit from the map and the information gathered therein by gaining comprehensive insight into their own national, regional, as well as transnational company situation.

The following company categories are represented:



With a holistic view on the Danube partner countries, the following facts apply:

- The wood sector and its supply chains are dominating the company landscape
- Processors are often traders as well, e.g. pellet production
- Companies working with dedicated energy crops are rare
- With regards to end users, the bioenergy market remains decentral

The situation of the biomass and bioenergy sector in the ENERGY BARGE partner countries is briefly presented on the next pages. For the detailed report, please have a look [here](#).



Austria

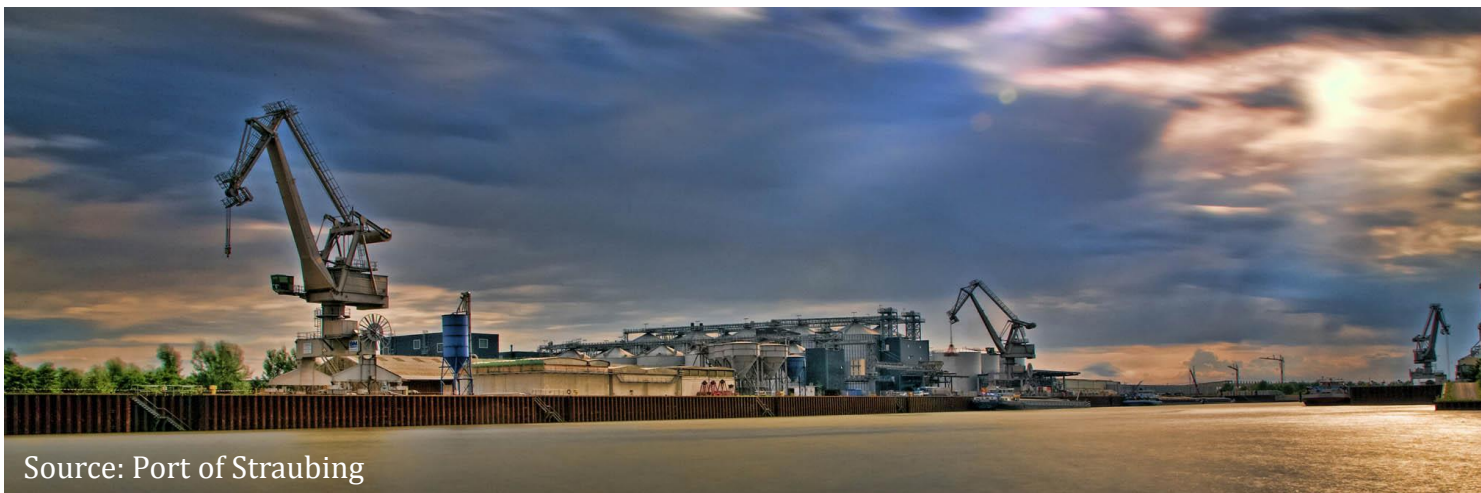
- Austria's most important bioenergy source: biomass from forests (approx. 80%)
- The heating sector with 82% of total bioenergy production is predominant
- Biomass sector as major contributor to turnover in renewables sector, generating 2.8 billion €, 1.3 billion € of which coming from solid, woody biomass
- Biomass boiler manufacturing is an important sector and Austrian boilers are dominating the European market – export rate: 75%
- Considering all elements of the supply chain, Austria has almost 4,000 companies active on the bioenergy market

Bulgaria

- Bulgaria's biomass & bioenergy company landscape is comparatively diverse
- Wood and oilseeds are the most common materials used for processing and export
- Between 2010 & 2015, pellet production increased from 7,000 to 112,000 tons
- Main export destinations for pellets: Italy, Greece & Turkey (mainly road transport)
- Especially sunflowers but also rape seed are used for vegetable oil production
- Sunflower hulls are often converted into pellets for bioenergy generation

Croatia

- Croatia's most important bioenergy source: woody biomass; main end users are still households burning log wood, supply is decentral/local in a fairly informal market
- According to the last issue of the Biomass Producers in Croatia Catalogue, there were 10 pellet producers and 13 producers of wood chips
- Approx. 95% of wood pellets are exported, mostly to Italy, Slovenia, Germany and Austria
- Utilisation of non-woody biomass for energetic purposes currently limited
- 45 sawmills listed
- Croatian wood cluster established to improve competitiveness of the wood processing sector, especially regarding the encouraging and promoting of inter-sectoral and trans-sectoral cooperation



Germany*

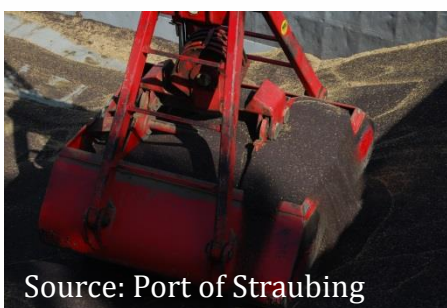
- Major source for the Bavarian bioenergy sector: woody biomass; in 2014, 6.3 Mio. solid m³ wood were used as energy wood, making the primary forest sector the biggest source of solid biomass for bioenergy purposes (wood chips)
- Sawmills represent the second-biggest supplier for wood-based bioenergy products; in Bavaria, mainly in the south-western part (Upper Bavaria), there are 700 saw mills in total
- 5.3 Mio. m³ of saw mill by-products, bark and sawdust are produced annually, 55% are used energetically, providing raw material input for pellet production
- Agricultural bioenergy feedstock was cultivated on 457,000 ha in 2015 for the production of biogas, biodiesel, industrial use, and bioethanol
- Processing facilities for biodiesel or bioethanol run by big corporations are limited in number

Hungary

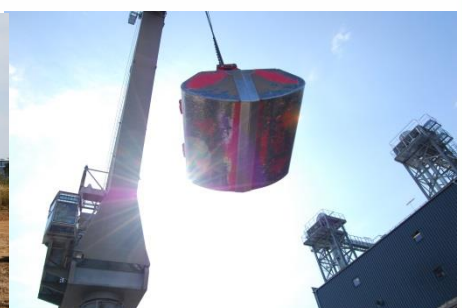
- Hungary's dominant source for bioenergy as well as renewables generally is solid biomass
- Biomass and bioenergy markets (except for traditional log wood heating in households) are considered as still under development, which is also visible in the company landscape
- Renewable electricity generation is developing very slowly, biodiesel and bioethanol production are stagnating, efforts for second generation plants are visible but mainly focussing on enhancing efficiency of conventional plants
- Utilisation of agricultural by-products for energy generation purposes in the energy sector is negligible and, based on current trends, this will not change in the short term

Slovakia

- Slovakia's bioenergy market is primarily focused on woody biomass and has a comparatively high potential for wood value chains with 41% of the total land area being forests (compared to a total of 35% in the EU)
- Wood processing industry cluster in Mid- and Northern-Slovakia (suppliers, processors, end user)
- Bioethanol production in Slovakia is a developing industrial branch
- Transports of biomass and wood are conducted usually via road; there are no important logistics and transportation companies focussed specifically on wood and biomass



Source: Port of Straubing



* For Germany, only Bavaria as adjacent region to the navigable Danube was considered

Inventory of potential users of Danube logistics from the bioenergy industry

To contribute to the specific objective to support the development of a better connected, interoperable and environmentally friendly transport system for biomass logistics, ENERGY BARGE identified companies active in the biomass and bioenergy industry, which due to their specific logistics requirements can be considered as potential users of Danube logistics services such as transport, transshipment and storage. The following logistics criteria were applied for the preparation of the inventory:

- Relevance of the company site in terms of logistics (production, storage, handling)
- Accessibility of the Danube waterway (distance to next Danube port)
- General suitability of products for transports on the Danube
- Specific suitability due to transport volumes, relations and length

The inventory covers in total around 550 international entries from the biomass and bioenergy industry and will serve as an invitation list for the five **regional business-to-business meetings** which are foreseen in the ENERGY BARGE project.

The first regional business-to-business meeting will take place in the frame of the **Danube Business Talks** which will be held on **10 and 11 October 2018** in Vienna. Organised by viadonau (Austrian Waterway Company) and the Port of Vienna, the event will be a prelude to the regional business-to-business meetings organised by the ports of Straubing (DE), Bratislava (SK), Budapest (HU) and Vukovar (HR).

The Danube Business Talks will focus on the development of innovative logistics solutions for the European bioenergy and biomass sector. For further information please see this [link](#).

Danube Business Talks 2018

Vienna, 10 - 11 October



See the full inventory report which contains the list of companies [here](#).

Get to know the ENERGY BARGE partners!



The International Centre for Sustainable Development of Energy, Water and Environment Systems (SDEWES Centre) is a non-profit scientific organisation based in Zagreb, Croatia. It focusses on specific research and development activities that address the problems common for the countries of the East and South East European and Mediterranean regions and forms multidisciplinary innovation teams that try to offer solutions to most important challenges of sustainable development of energy, water, and environment systems. SDEWES Centre is engaged in several EU projects and organises a series of conferences.

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Danube Transnational Programme

ENERGY BARGE

Building a Green Energy & Logistics Belt

ENERGY BARGE is co-funded

by the European Regional Development Fund (ERDF)

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