

*Linz, 28<sup>th</sup> February 2017*

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# Kick-off Meeting



Agency for Renewable Resources  
Thies Fellenberg





# Agenda – Welcome and Introduction

<b>16:00 - 16:30</b>	<b>ENERGY BARGE – Introduction (scope and objectives)</b>	<b>FNR</b> (Fachagentur Nachwachsende Rohstoffe e.V.)
<b>16:30 - 17:00</b>	<b>Benefits of ENERGY BARGE for the bioenergy industry and the Danube logistics sector</b> <ul style="list-style-type: none"> <li>➤ market analysis</li> <li>➤ new logistics services</li> <li>➤ bioenergy pilots in ports</li> </ul>	<b>BCG</b> (BioCampus Straubing GmbH), <b>VIA</b> (viadonau), <b>MAHART</b> (MAHART – Freeport Co. Ltd.), <b>PoVi</b> (Port of Vienna)
<b>17:00 - 17:30</b>	<b>Key note presentations</b>  proPellets Austria  First-DDSG Logistics Holding GmbH	<b>C. Schlagitweit</b>  <b>R. Jina</b>
<b>17:30 - 18:00</b>	<b>Feedback round Advisory Group &amp; User Forum</b>	<b>BCG, VIA</b>
<b>18:00 - 18:10</b>	<b>Conclusion &amp; Outlook</b>	<b>FNR</b>
<b>18:10</b>	<b>Networking Buffet / Standing reception</b>	





## Project overview



## Project overview

**Start date: 01/01/2017**

**End date: 30/06/2019**

### **Budget**

**Overall: 2,323,519.65 Euro**

**ERDF Contribution: 1,974,991.67 Euro**

**15 Project partners**

**8 Associated partners**



- Bioenergy → 9% of gross final energy consumption (2010)
- 68% of the renewables in total
- Differences among the countries in the Danube region
- Improve transnational know-how transfer and cooperation



- Support national and regional actors to evaluate the market potential
- Improved transportation of biomass
  - Cargo transport on the Danube +20% until 2020
  - Better environmental performance along the entire value chain
  - Transnational learning interactions



## **Main objective:**

→ Increase the use of biomass for energy production in the Danube region

## **Challenges:**

- 1) Regional and national disparities
- 2) Support the EU2020 climate goals
- 3) Improve energy security and reduce dependency on fossil fuels



- SO1)** Map value chains and facilitate market uptake of biomass for energy production
- SO2)** Sustainable and secure distribution of biomass
- SO3)** Provide practical solutions and policy guidelines (→ market actors, public decision-makers)

Source: FNR



- Analyse the biomass potential of the Danube region
- Company landscape in the programme area
- Pre-feasibility pilot studies and pilot actions by Danube ports
- Transnational workshop
- Transfer of results

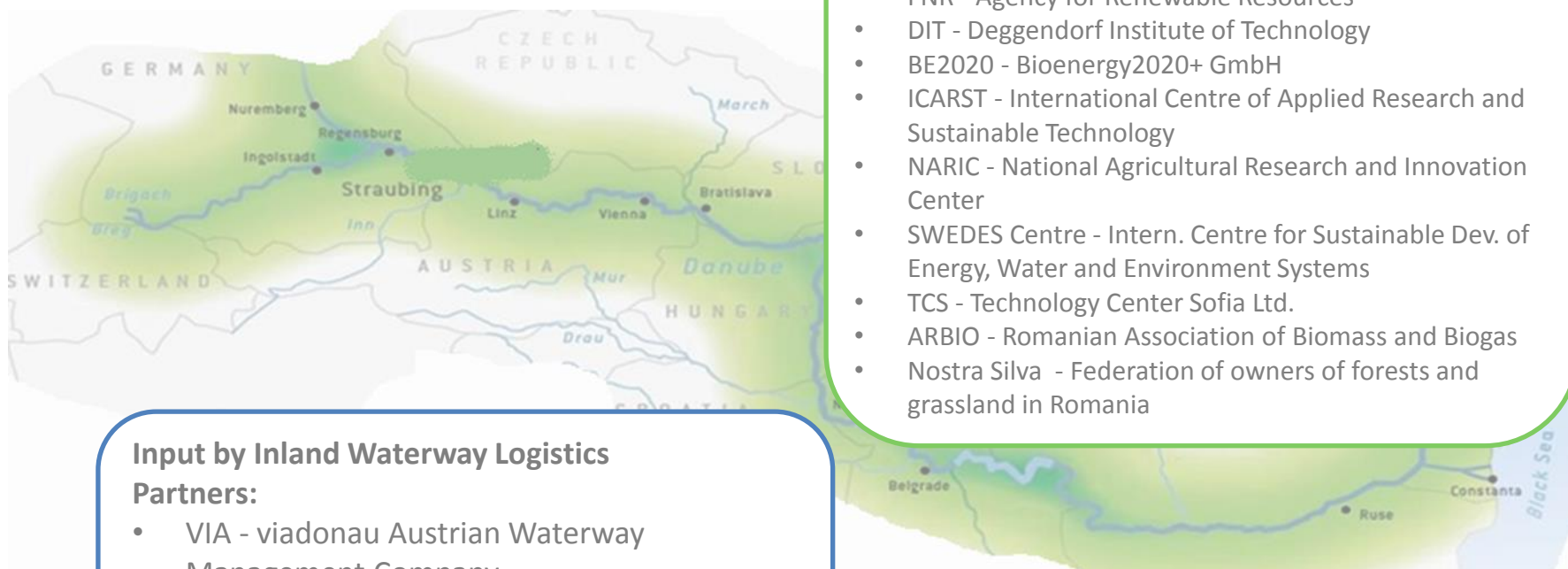




- 1) Regional public Authority and Policy makers
- 2) National public Authority and Policy makers
- 3) Interest Groups and Business Support Organisations (incl. NGOs)
- 4) Enterprises in the field of biobased industries, bioenergy or logistics
- 5) SMEs







## Bioenergy Partners:

- BCG - Biocampus Straubing GmbH
- FNR - Agency for Renewable Resources
- DIT - Deggendorf Institute of Technology
- BE2020 - Bioenergy2020+ GmbH
- ICARST - International Centre of Applied Research and Sustainable Technology
- NARIC - National Agricultural Research and Innovation Center
- SWEDES Centre - Intern. Centre for Sustainable Dev. of Energy, Water and Environment Systems
- TCS - Technology Center Sofia Ltd.
- ARBIO - Romanian Association of Biomass and Biogas
- Nostra Silva - Federation of owners of forests and grassland in Romania

## Input by Inland Waterway Logistics Partners:

- VIA - viadonau Austrian Waterway Management Company
- PoVi - Port of Vienna
- PoVU – Port of Vukovar
- MAHART - MAHART Freeport Co. Ltd
- SPaP – Slovak Shipping and Ports JSC



## Associated Partners

Official Name in English	Acronym	Country
Central European Initiative	CEI	Italy
Ministry of Development Hungary	NFM	Hungary
Government of Lower Bavaria, Department Economy, Regional Development and Transport	RNB	Germany
Ministry of Maritime Affairs, Transport and Infrastructure	MMATI	Croatia
Association of Danube River Municipalities	ADRM	Bulgaria
Institute of Soil Science, Agrotechnologies and Plant Protection “N. Pushakarov”	ISSAPP	Bulgaria
Cluster Green Transport	GFTCluster	Bulgaria
Working Community of the Danube Regions, Working Group Transport and Navigation	ARGE Donau	Austria



# Thank you for your attention

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## Fachagentur Nachhaltende Rohstoffe e.V. (FNR)

Agency for Renewable Resources

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[info@fnr.de](mailto:info@fnr.de)

[www.fnr.de](http://www.fnr.de)

[international.fnr.de](http://international.fnr.de)





# Closure



Agency for Renewable Resources  
Thies Fellenberg





## Closure

- Monthly newsletter
- Website ([www.interreg-danube.eu](http://www.interreg-danube.eu))
- Biannual project meetings
  - Combined with national workshops
  - EU-wide transnational learning conference
  - B2B meetings



# Thank you for your attention





# Benefits of ENERGY BARGE for the bioenergy industry and the Danube logistics sector

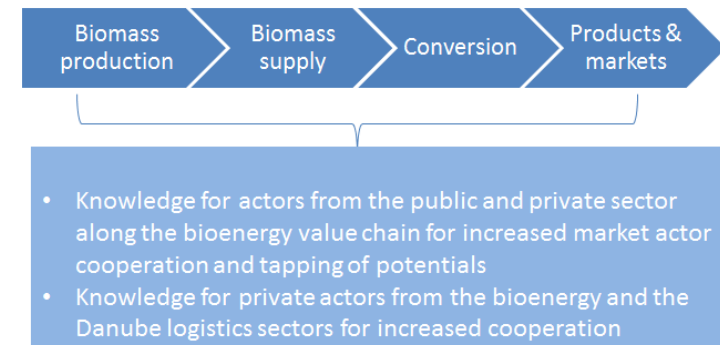
*Linz, 28<sup>th</sup> February 2017*  
**viadonau**





# Market analysis I

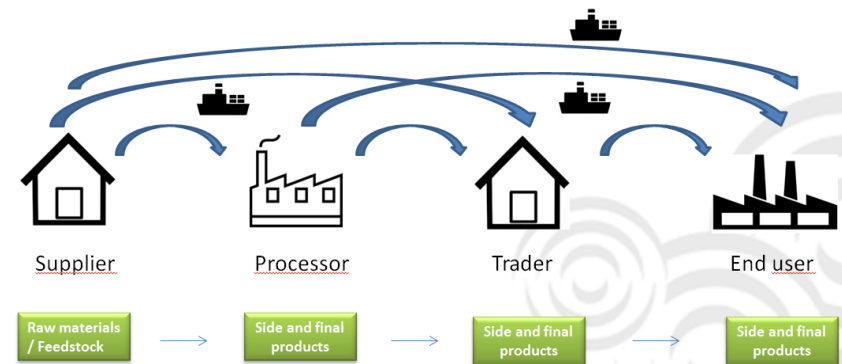
- **Online information tools** for better exploitation of bioenergy potential along the value chain in the Danube Region → increased energy security (transnational character)
- **Practical Recommendations** for public **and** private actors in both the bioenergy and Danube logistics sectors
- Basis for **cross-sectoral and transnational knowledge exchange**





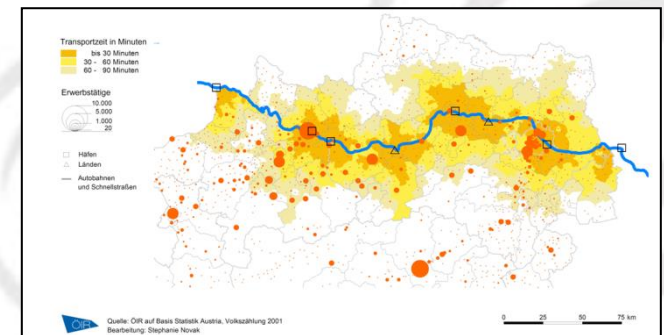
## Market analysis II

- Regional **Business to Business meetings** (with stakeholders from bioenergy industry and Danube logistics sector)
- **Catalogue** of potential users of Danube logistics from the bioenergy industry → evaluation of the modal shift potential
- Definition of **logistics requirements** in the bioenergy industry (for raw materials, intermediates and end products)
- **Potentials** and needed **investments** in the Danube logistics sector





# Market analysis II





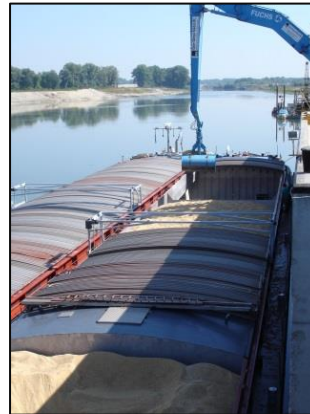
## New logistics services I

- **Practice-oriented handbook** for companies from the bioenergy sector (with information about infrastructure and administrative conditions for biomass transports)
- **Overview of logistics service locations** for transport, handling and storage of biomass along the Danube
- **Exchange workshop** with a “good practice port” in Western Europe (ideas for new logistics services)
- **New logistics solutions** will be developed on transnational level





## New logistics services II





# One-stop-shop – online modal shift platform

- Publicly accessible information platform for potential customers of Danube logistics services from the biomass/bioenergy sectors
- Know-how exchange on the transport, handling and storage of biomass products
- Information about Danube ports and other logistics service providers including contact data, maps, available equipment etc.
- All project results will be provided on the platform





## Bioenergy pilots in ports – MAHART/Budapest

- Largest port in Hungary, hinterland is the whole of Hungary, Budapest is as main economic centre
- Main logistical hub but waterside is weak compared to rail and road
- Biomass is a bulk cargo which is less time sensitive but transport costs count a lot
- The project is an opportunity to approach this new market in the framework of a transnational cooperation: survey the market locally and transnationally, identify buyers and providers, develop a new service strategy for a new market.



2020



## Bioenergy pilots in ports – MAHART/Budapest

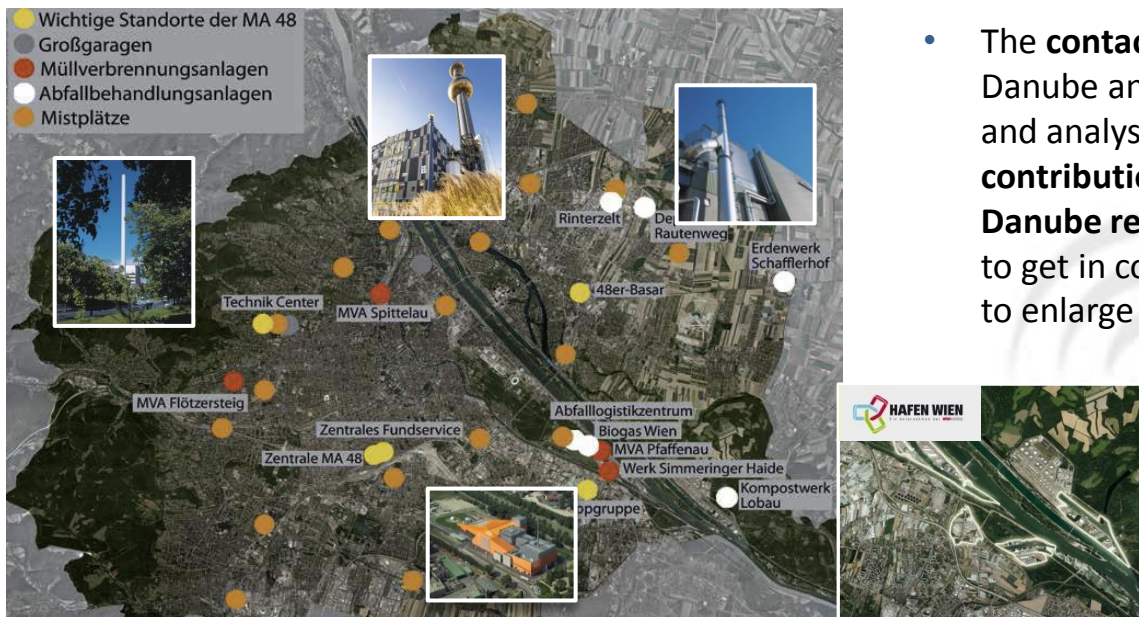
- Status quo: Biomass is currently not handled in the Port of Budapest -> ENERGY BARGE helps opening up a new market by
  1. Pilot study with an investment plan: analysis of valid market opportunities and investment plan with a financial analysis to prepare large scale investments
  2. A small-scale investment: purchase of a forklift with a specific bulk bag filling and handling adaptor which will enable it to load the different biomass products into big bagsResults will be summarized in a report and transferred for testing to all partners. MAHART also participates to learn from results in other ports.





# Bioenergy pilots in ports – Port of Vienna

- The **Port of Vienna** will participate in this project covering mainly the topics **port development** and **Infrastructure** in the focus of **renewable raw materials**.
- Because of the **energy focus** the Port of Vienna is very interested in **developing a comprehensive approach** for **transport, handling, production, storage** and **utilization** of **wood-based products** in the Port of Vienna. Not just the Port, also the **Viennese region** and especially the companies in the Port area and neighborhood have direct impact in the comprehensive research.



- The **contact to the project Partners** along the Danube and the awareness of their projects and analysis can represent an **additional contribution** to the **development** of the **Danube region**. During the project we want to get in contact with additional stakeholder to enlarge the pool of ideas.



# Bioenergy pilots in ports – Port of Vienna

The pilot actions would be an important first step to create the preconditions for tackling a new market (bioenergy industry) and build up a wide range of services for biomass and renewable resources.

- **timber Gripper for the wheel loader**
- **timber grapple for the e-crane** (electric operated up to 12 tons)
- **crushing unit for round timber**

The Small Scale Investments are located in Handling Equipment for barrier-free biomass handling in the Port of Vienna.

The feasibility study in WP5 should handle with developing a comprehensive approach for transport, handling, production, storage and utilization of wood-based products in the Port of Vienna.

The Small Scale Investments run parallel to the feasibility study.





# **Pellet Trade and Routes, Transport and Logistics**

**Christian Schlagitweit**  
**proPellets Austria**

[schlagitweit@propellets.at](mailto:schlagitweit@propellets.at)  
[www.propellets.at](http://www.propellets.at)

**Linz, February 28, 2017**

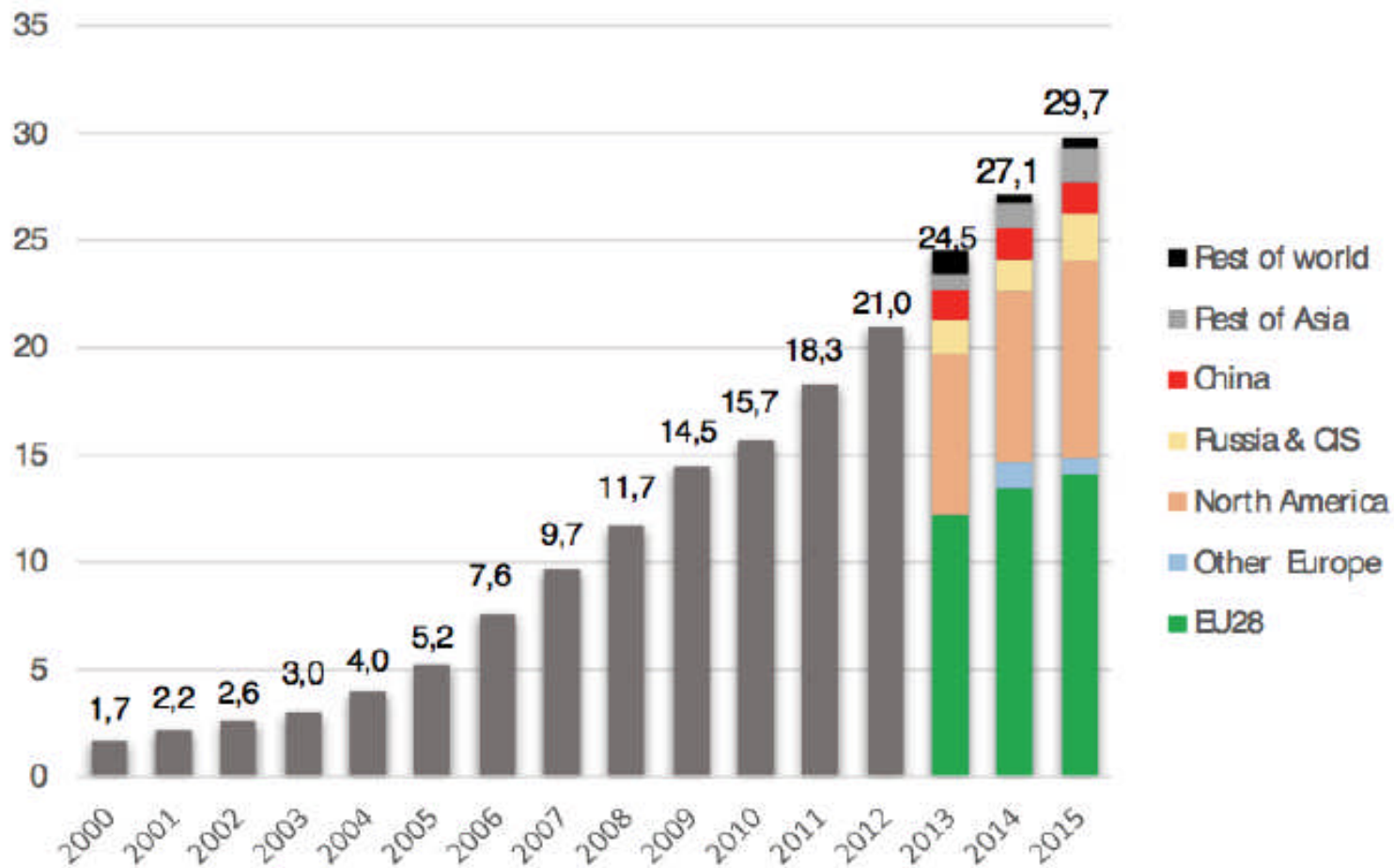


- » Association, founded 2005
- » 55 members, companies from the value chain of pellets
- » Headquarter in Wolfsgraben (close to Vienna)
- » Market surveys, market studies, communication within the sector, PR, lobbying,...
- » International cooperation (EPC), research projects, safety, standardisations,....



## Worldwide Pellet Production is increasing

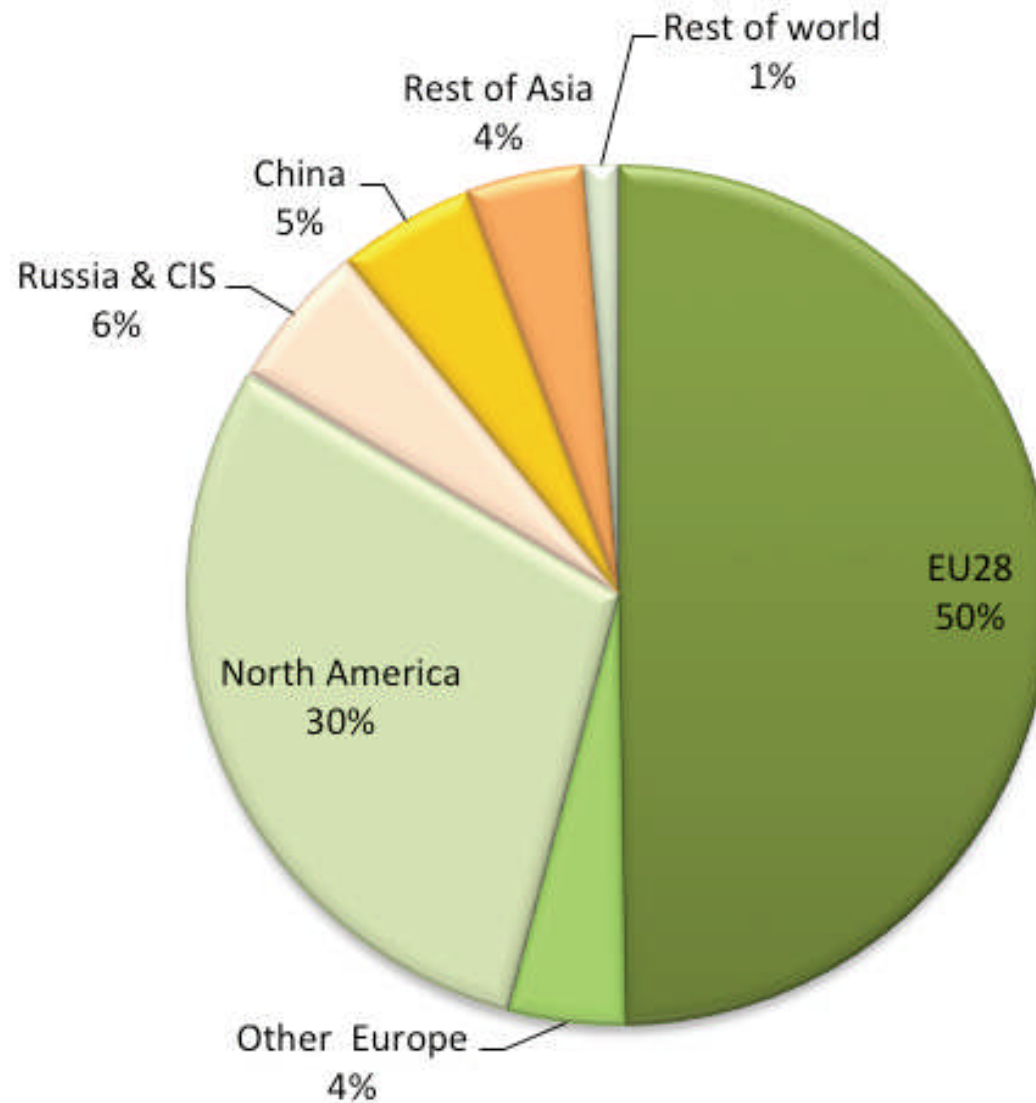
Figure 8-1 World pellet production overview 2000-2015 (million tonnes)



Source: EPCsurvey, IEA Bioenergy Task 40



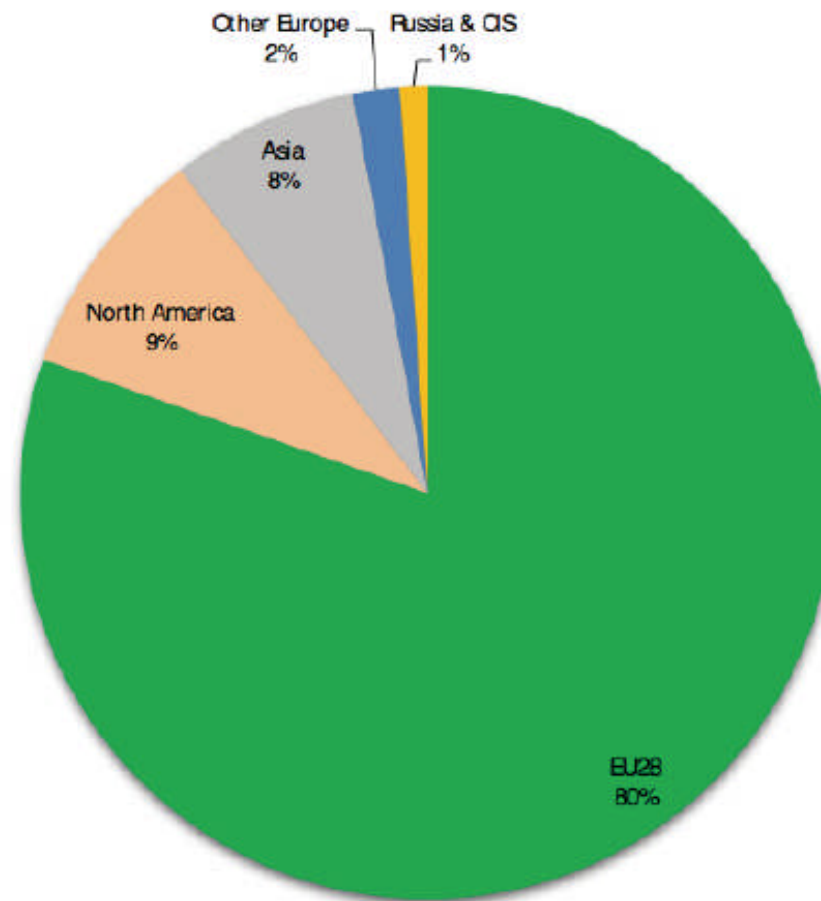
## World wood pellet production share in 2014 (Mio. t)





## World pellet consumption share in 2015

Figure 8-5 Distribution of world wood pellet consumption in 2015 (percentage)

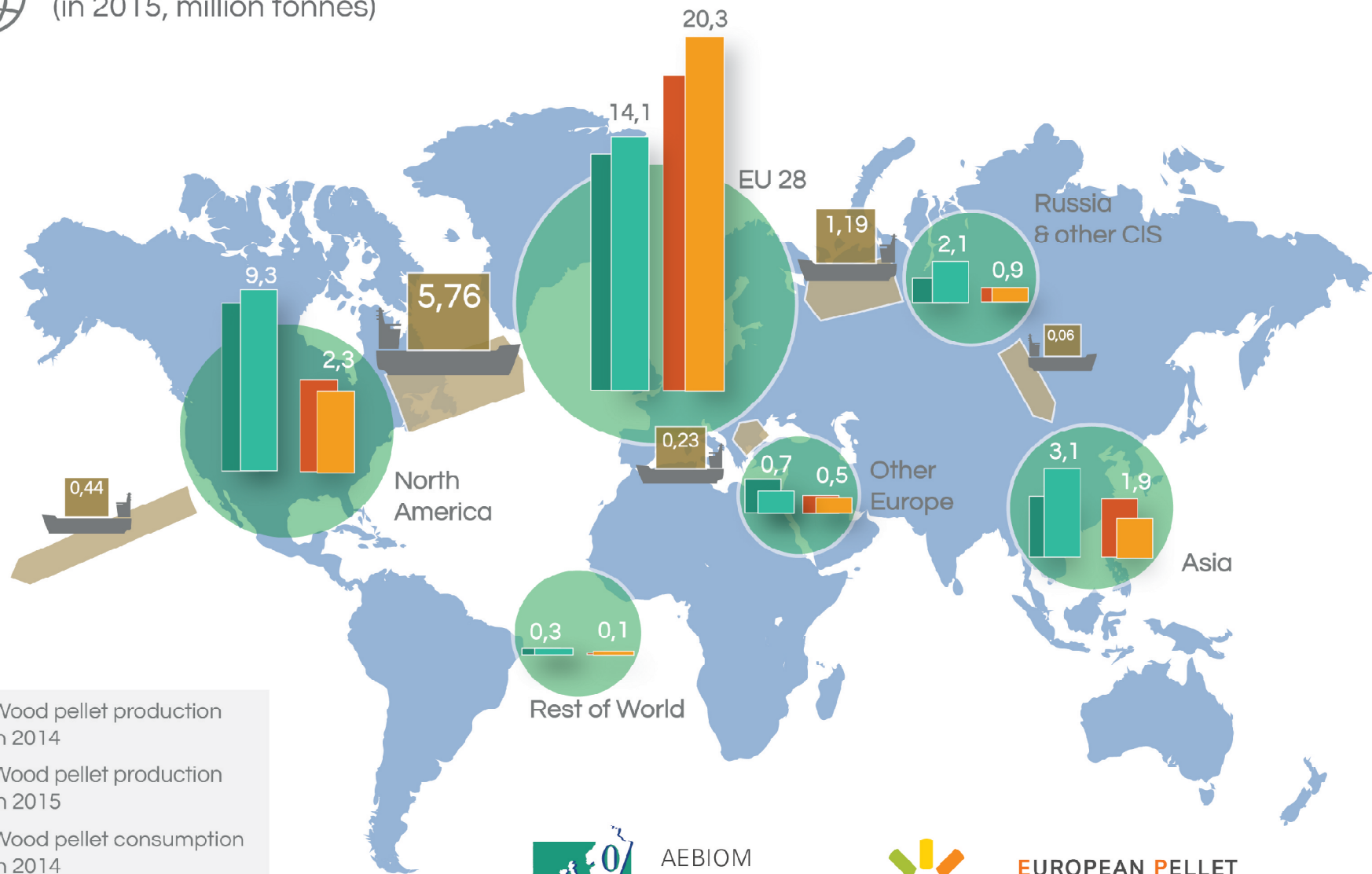


Source: EPCsurvey





## World pellet map and trade flows (in 2015, million tonnes)



- Wood pellet production in 2014
- Wood pellet production in 2015
- Wood pellet consumption in 2014
- Wood pellet consumption in 2015



AEBIOM  
STATISTICAL  
REPORT  
*2016*

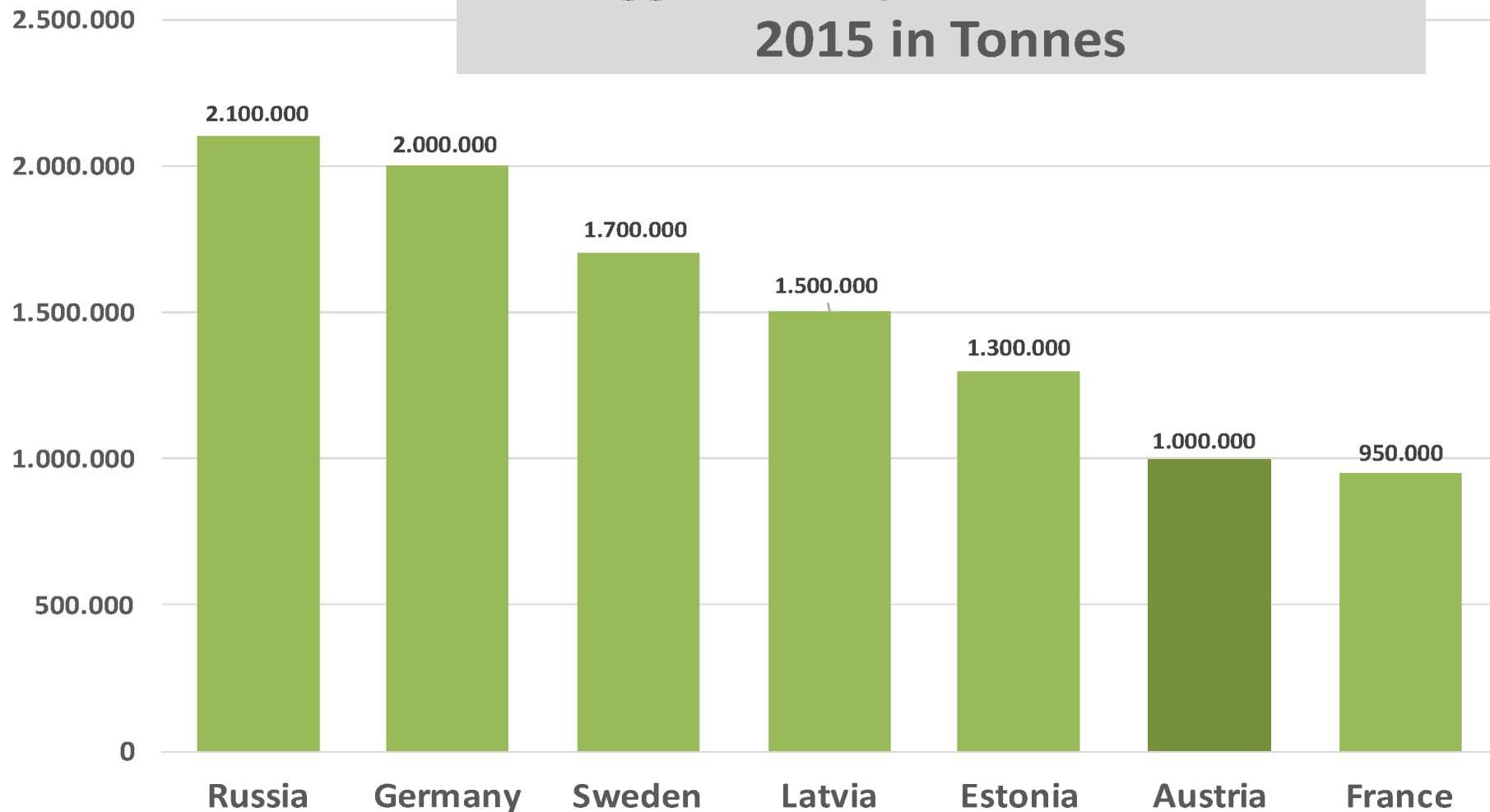


EUROPEAN PELLET  
COUNCIL  
AN AEBIOM NETWORK



## Russia has become the biggest European Pellet Producer

### The biggest European Pellet Producers 2015 in Tonnes





## Different Use of Pellets

1. Co-firing in power plants - coal and pellets (UK)
2. Combined heat and power (DK, SWE)
3. Small scale boilers - central heatings (AT, DE)
4. Pellet stoves – pellets in handsome bags (IT, more and more also in Ex-Yu, Greece, France)





## ⚡ European wood pellet consumption for power (in 2015, tonnes,%)

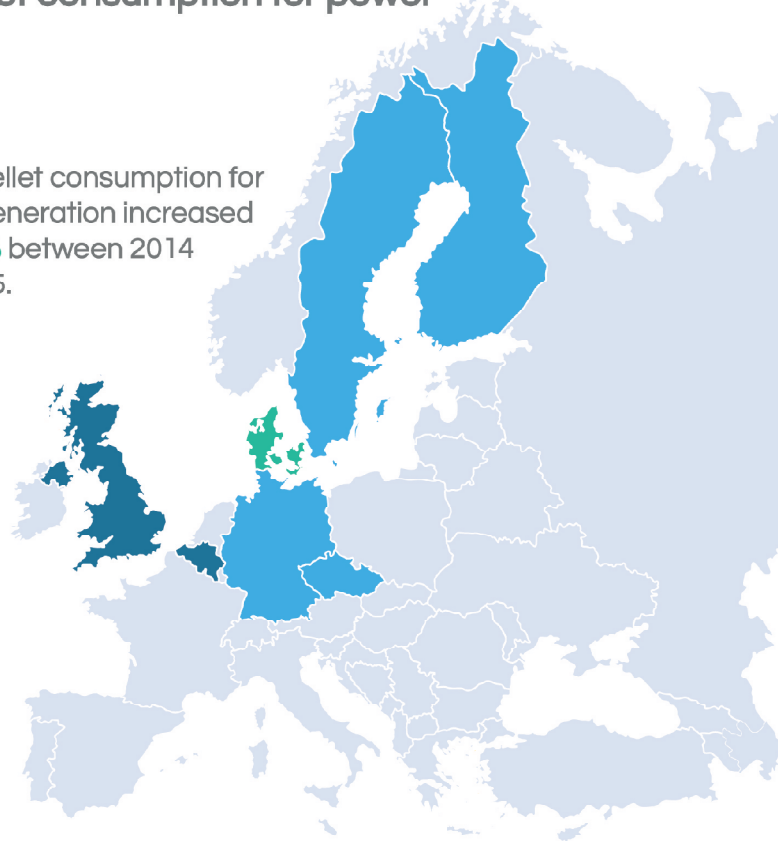
EU-28 consumption  
**7,32**  
million tonnes in 2015

EU-28 pellet consumption for power generation increased by **14,9%** between 2014 and 2015.

Actual consumption  
(in tonnes)

- > 1.000.000
- < 1.000.000
- < 500.000
- < 100.000

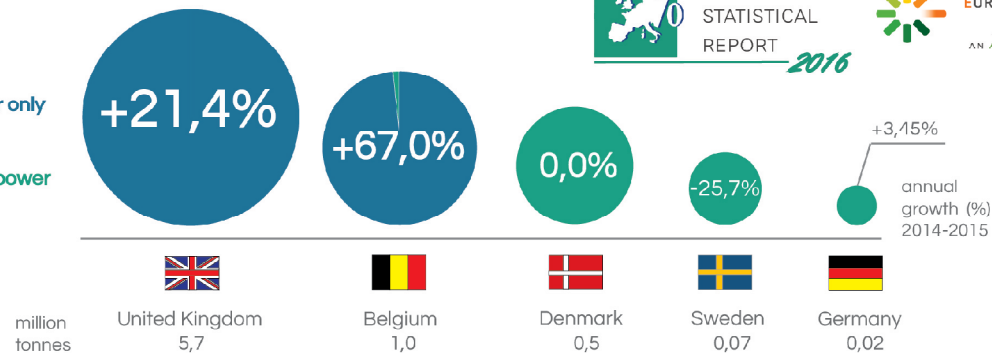
Source: EPC Survey



Consumption in top 5 EU-28 countries in 2015

Power only plant

CHP power



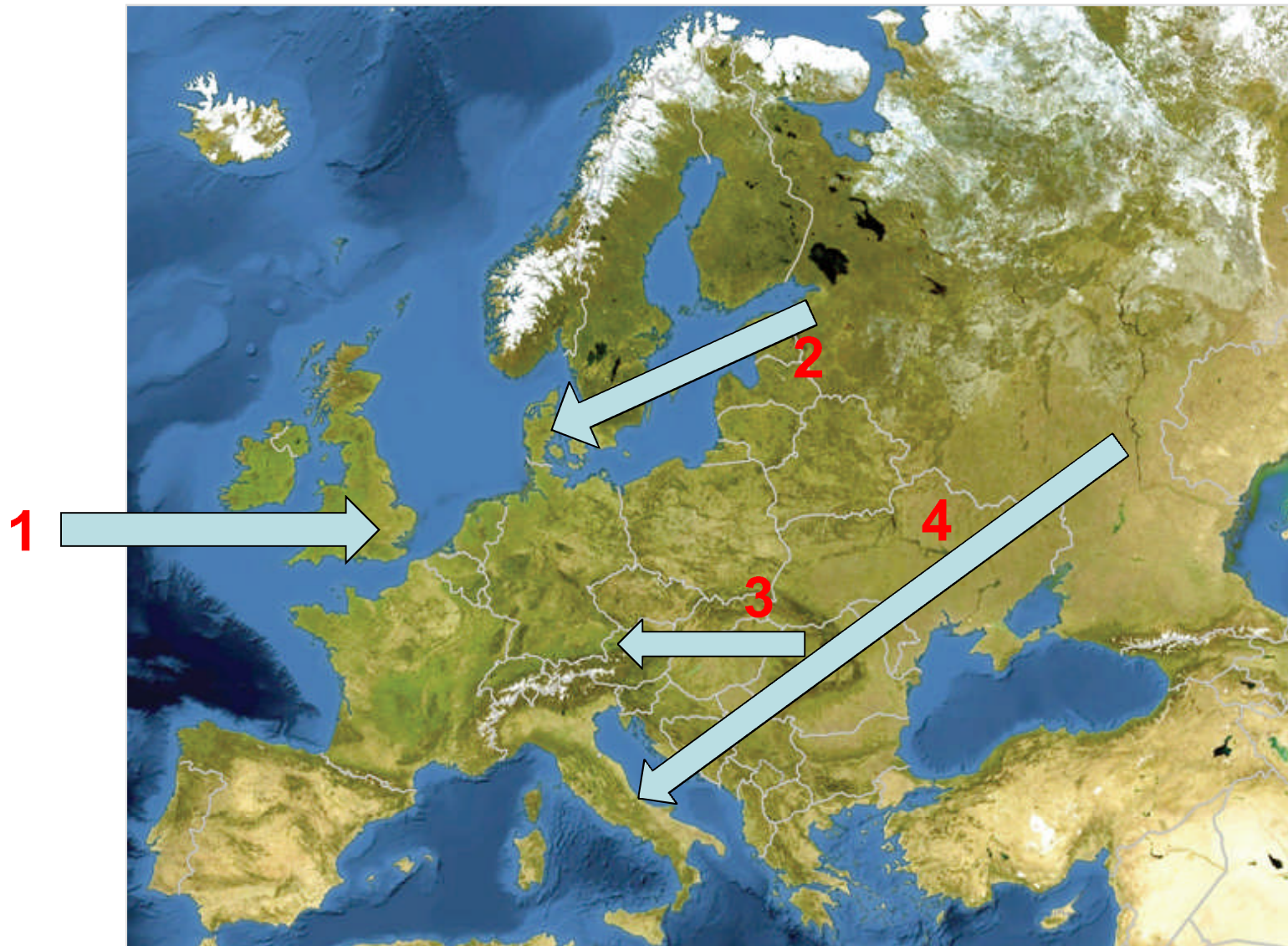
AEBIOM  
STATISTICAL  
REPORT  
2016



EUROPEAN PELLET  
COUNCIL  
AN AEBIOM NETWORK



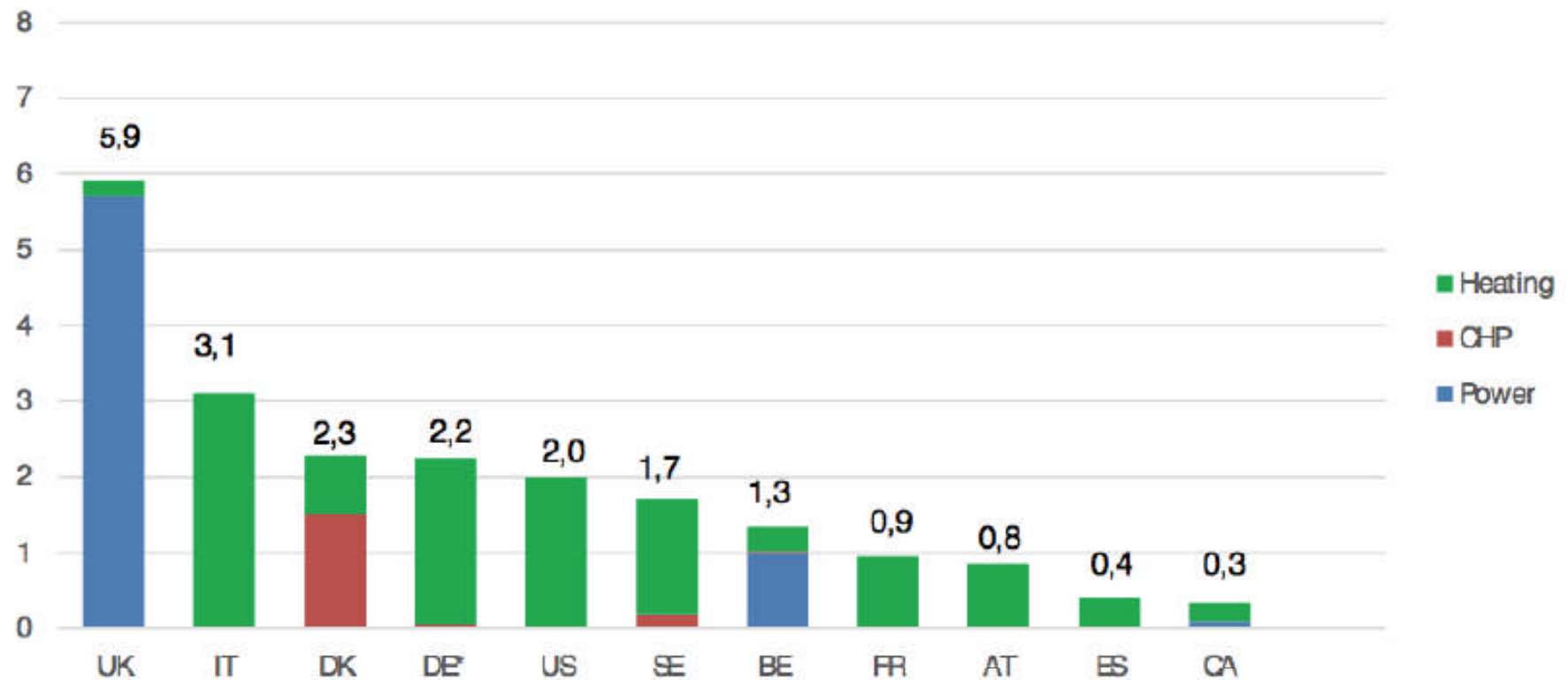
## The European Main Trade Flows of Pellets





## Top10 – Consumer States

Figure 8-6 Top 10 wood pellet consuming countries by end-use in 2015 (million tonnes)

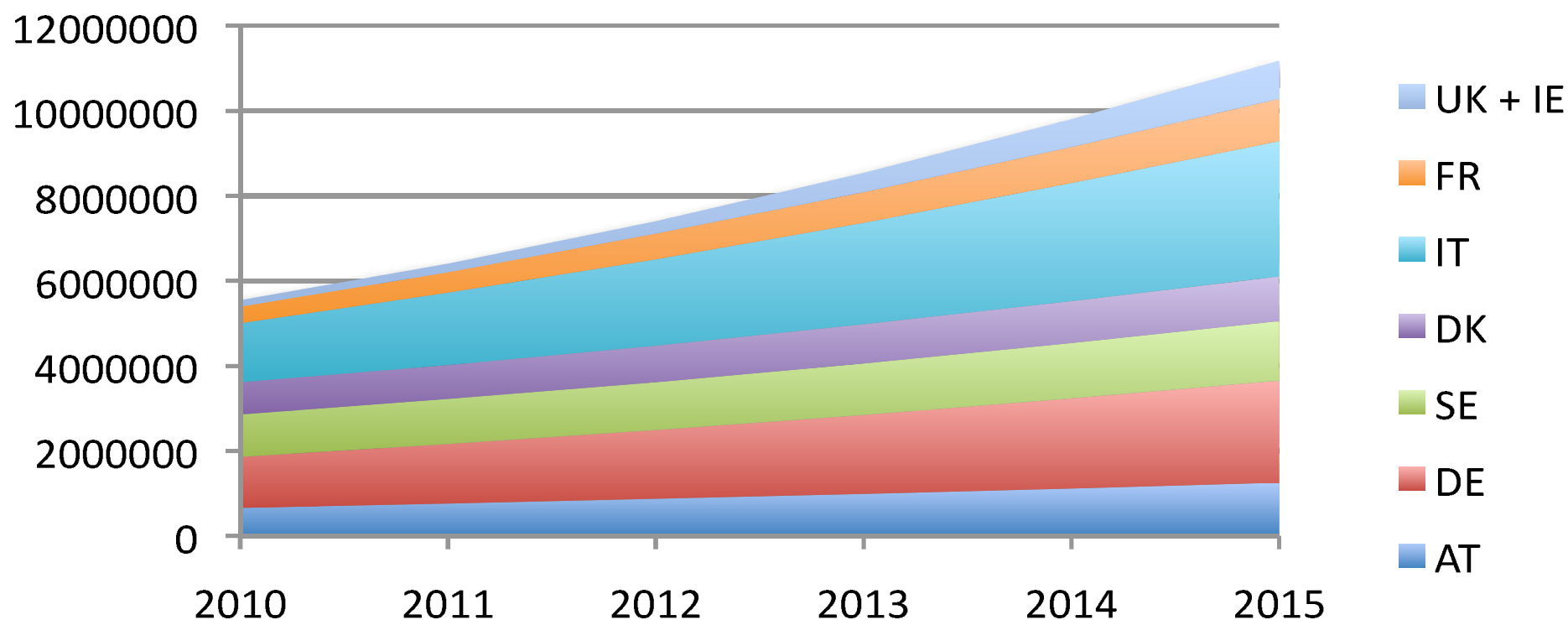


\*2015 projection in 2015 survey

Source: EPCsurvey



## Development of pellet demand in heat markets



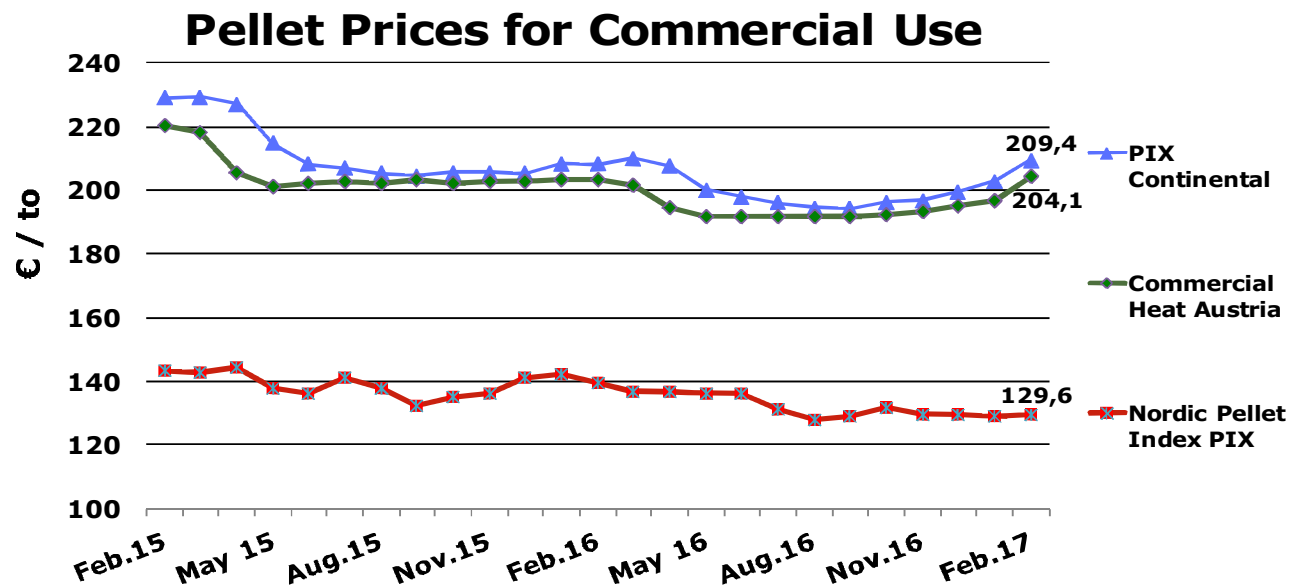
**Assumed annual growth rate of boiler & stove sales: 10%, except UK: 40%**

Source: proPellets, DEPV, AIEL, PIR, SNPGB, Force



## The different uses of pellets can be connected

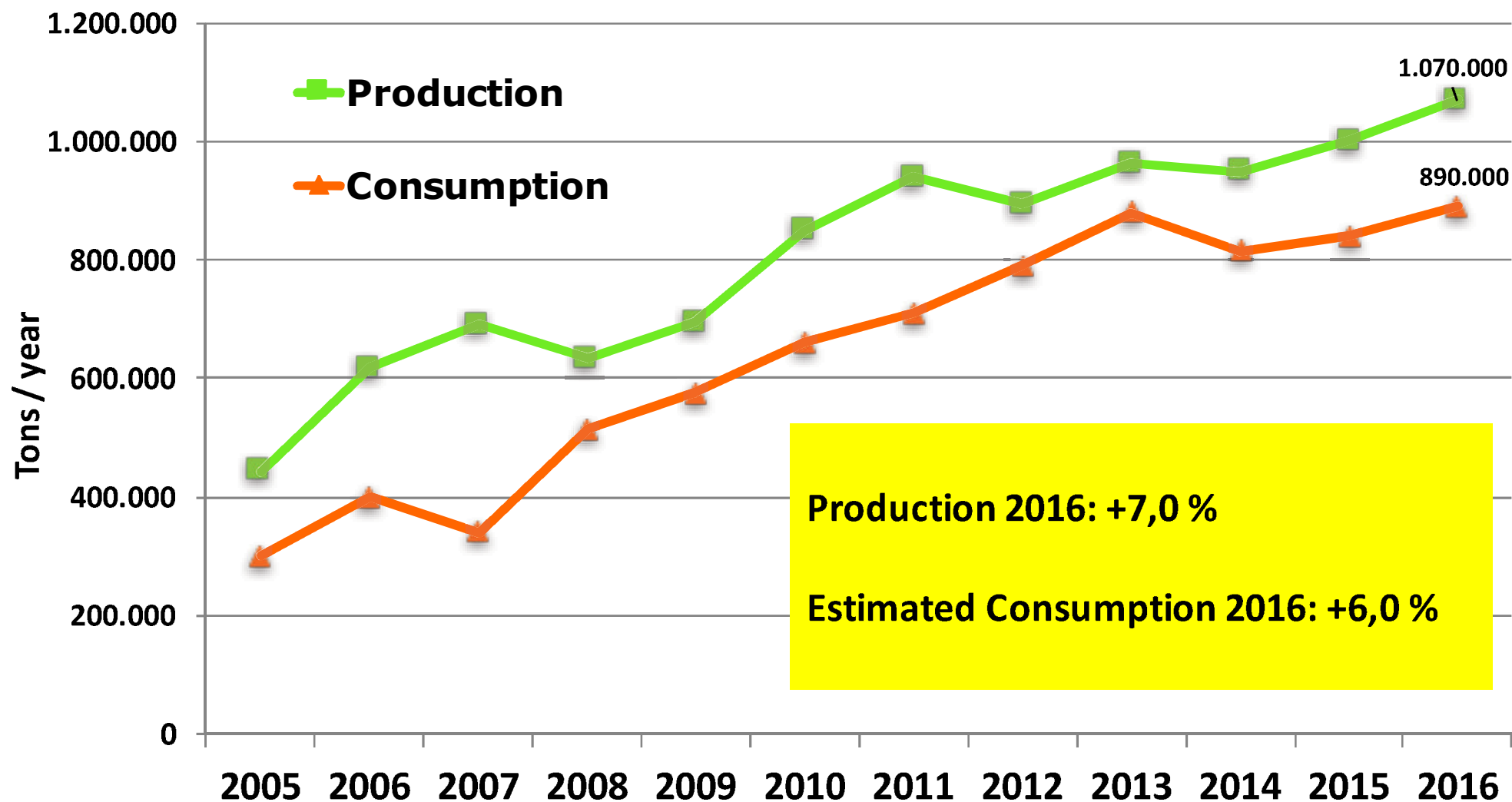
- » The higher price for pellets for small scale use is also interesting for the industrial producers and traders
- » Industrial use secures supply in the residential heat market
- » Rotterdam as hub between the ocean and the Danube



Source: proPellets Austria (17 mt), PIX Continental by FOEX (17/26 mt), PIX Nordic by FOEX (1.000 mt).

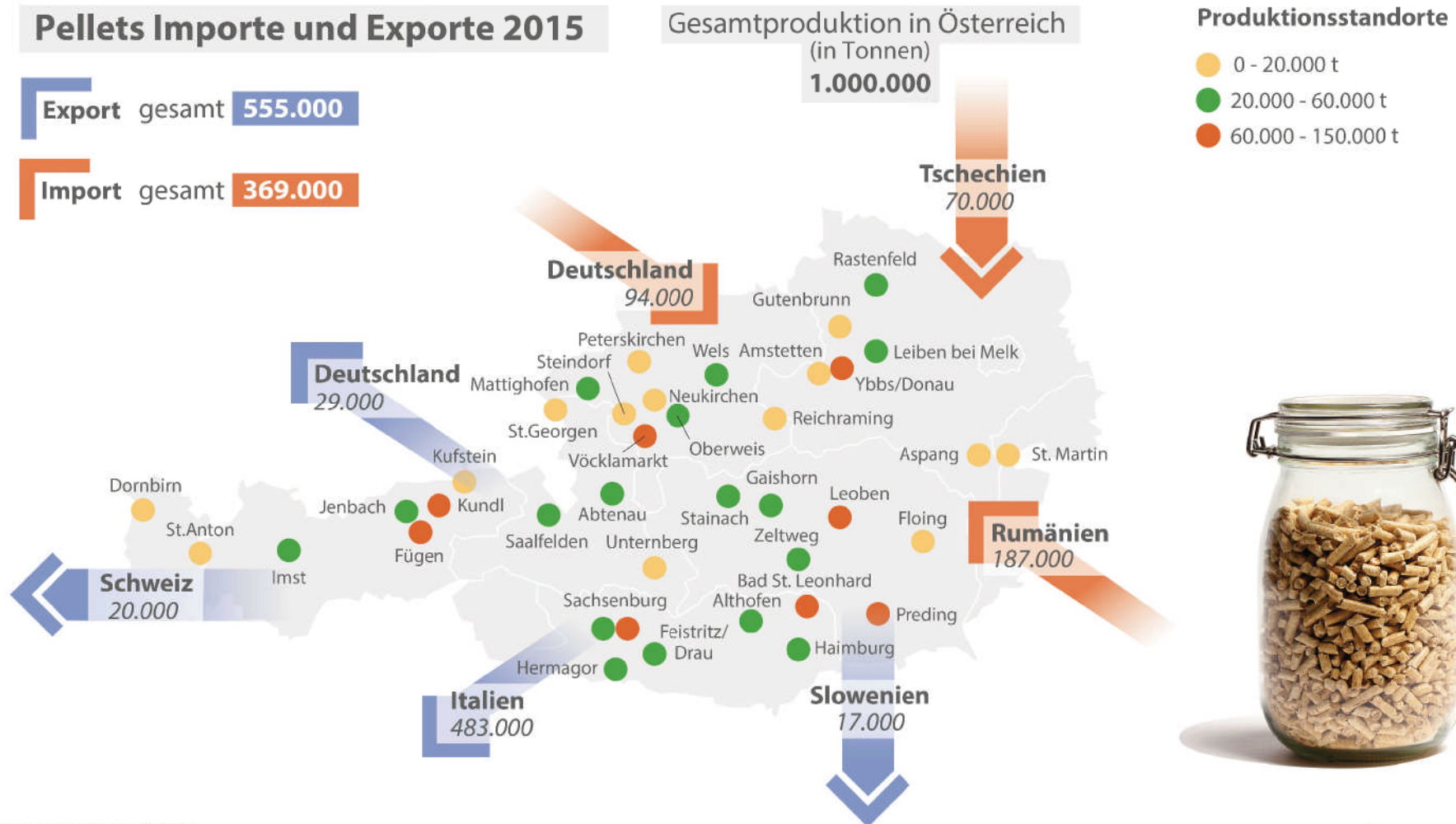


## Pellet Production and Consumption in Austria



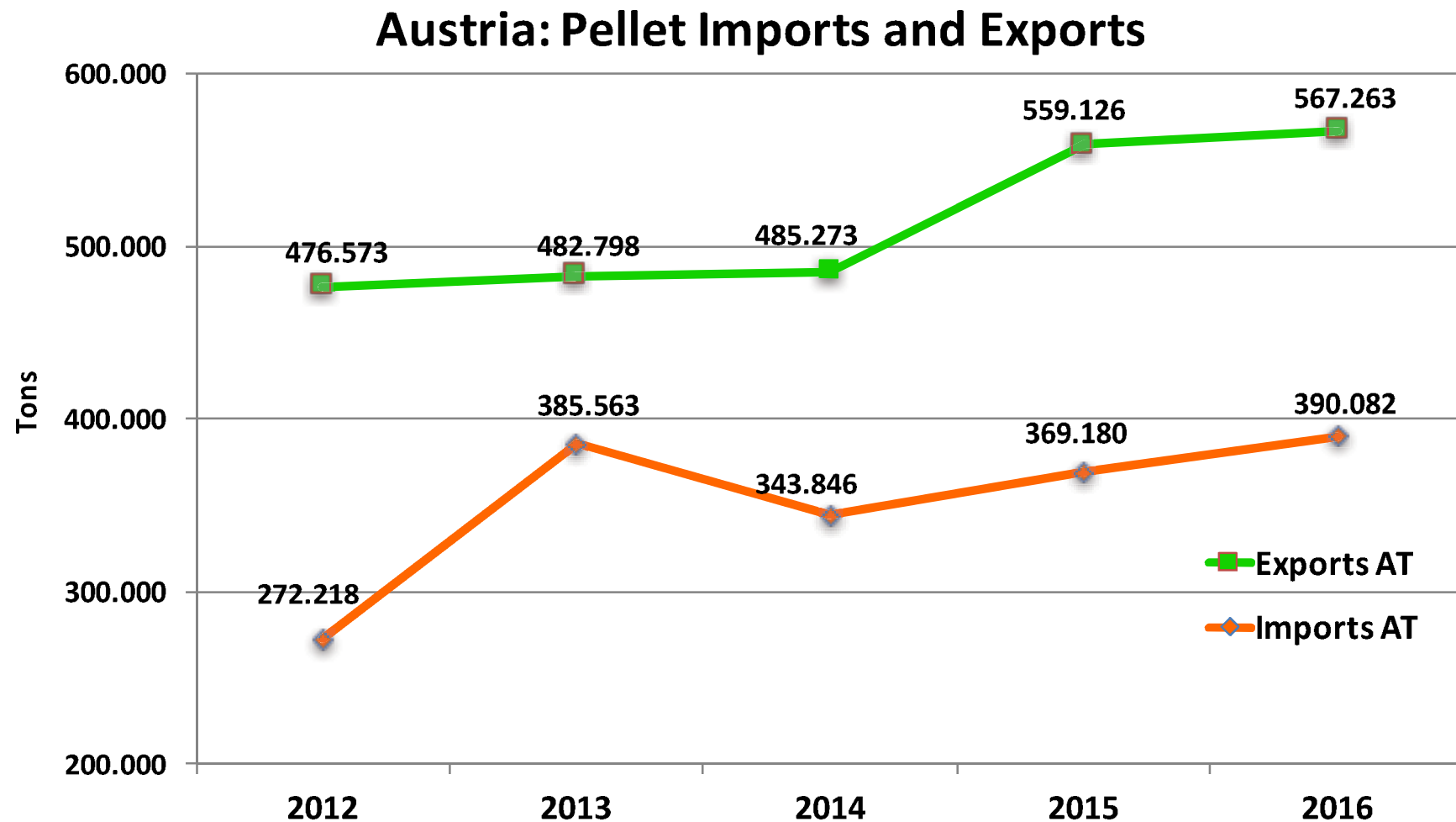


## 2015: Pellet Production and Trade in Austria





## Moderate Increase of Foreign Trade

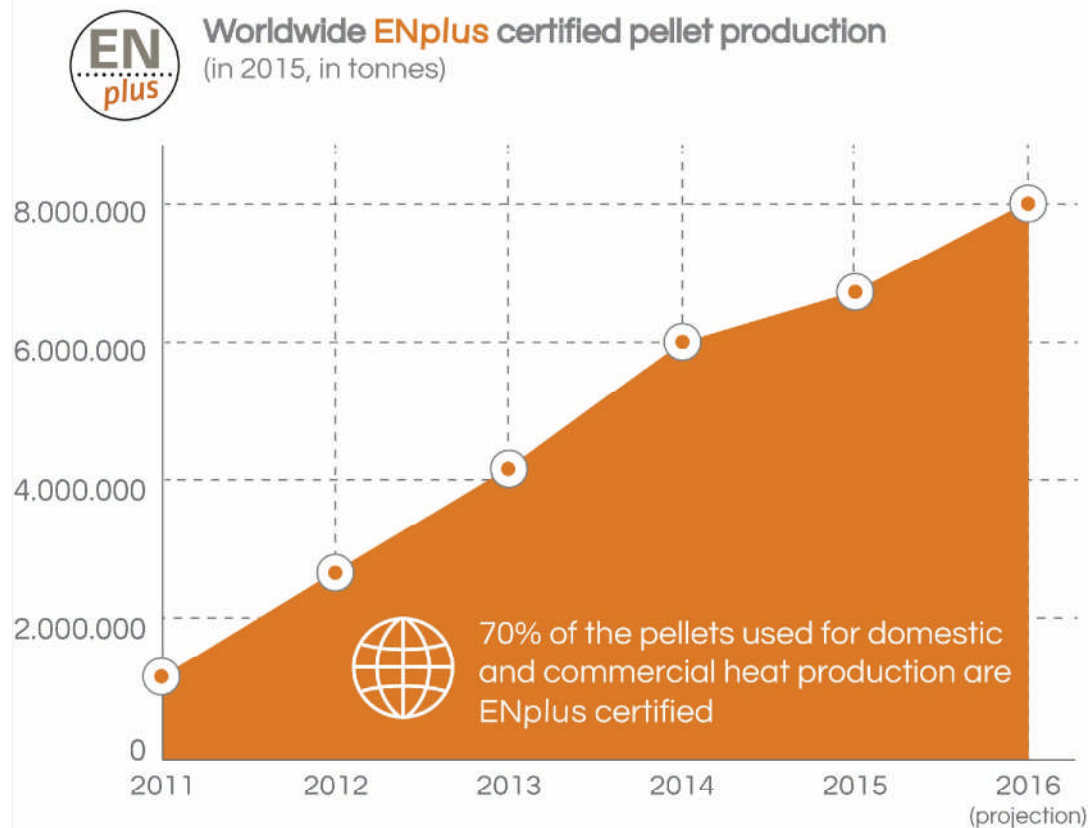


Source: Statistik Austria, December 2016 estimated by proPellets; February 2017



## Quality Standard is a Precondition for International Trade

» ENplus certification is widely established



Source: EPC Survey



3 Quality Classes:

A1, A2 and B



## **Waterway is the best way for commodities**

- » The increase of the local production in DE and AT is limited, but the consumption is further increasing
- » Transport costs are a relevant share of the product costs
- » Danube is a good connection to south- and east Europe: strong production in Romania and Russia and increasing in Bulgaria and Ukraine
- » For the secure supply we need access to the hub of Rotterdam:  
2013 we imported 20.000 tons via Rotterdam – Rhein–Main–Donau to Austrian ports Enns and Krems
- » This January impossible to use this route (--> railway!)



Both directions are an interesting option for the pellet sector:

- The way from Rotterdam to Austria is important for the supply security
- The way from the Black Sea to Austria makes access to a huge potential





## Technical requirements for the ports

- » Enough storage capacity
- » Big storages must have safety devices (temperature control, protection from humidity, CO-sensors)
- » Pellets must be protected from moisture when they are handled
- » Equipment for filling silo-trucks including equipment for sieving the pellets





**Thank you for your attention!**





# First - DDSG Logistics Holding GmbH



Over 185 years of solid experience





First-DDSG  
Logistics Holding GmbH

## Company Overview

Energy Barge  
28.02.17, Linz

klimaaktiv



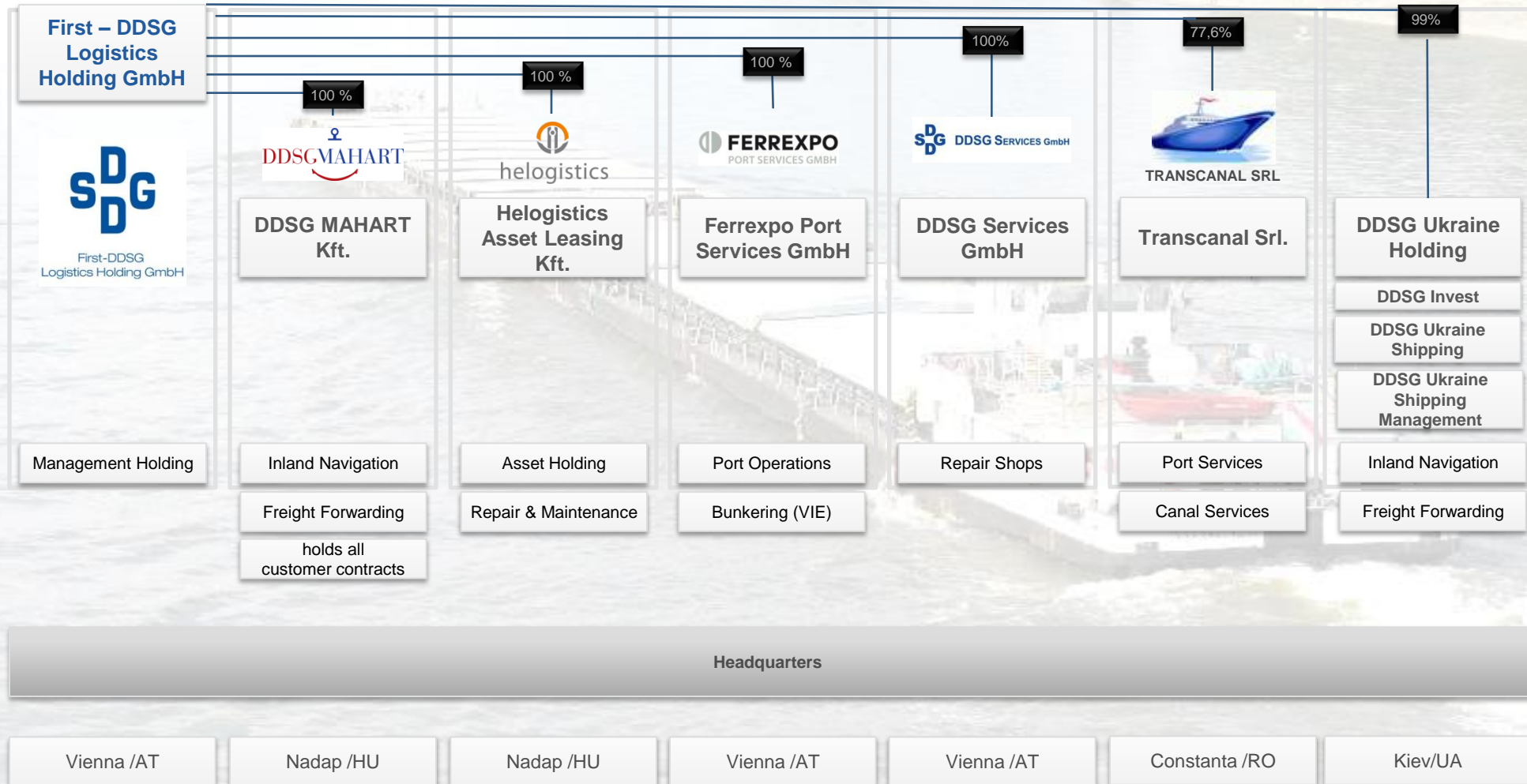
Projektpartner





# First – DDSG Logistics Holding GmbH

## – Overview Of The Group





# First – DDSG Logistics Holding GmbH

## – Business Segmentation



### Business Segmentation: 6 Pillars





# First – DDSG Logistics Holding GmbH

## – Dry Bulk Business



### >>> Connecting North and Black Sea <<<

ARA  
Ports

#### Dry cargo fleet

Pushers	28
Self-propelled	23
Barges	151

#### Tank fleet

Self-propelled	2
Barges	7

#### Others

Pontons	9
Floating cranes	3
Technic units	6
Representative	1

<b>Total</b>	<b>230</b>
<b>330.000 mt</b>	<b>capacity</b>

West Line

Vienna

Budapest

East Line

Izmail

Upper Danube

Tank Line

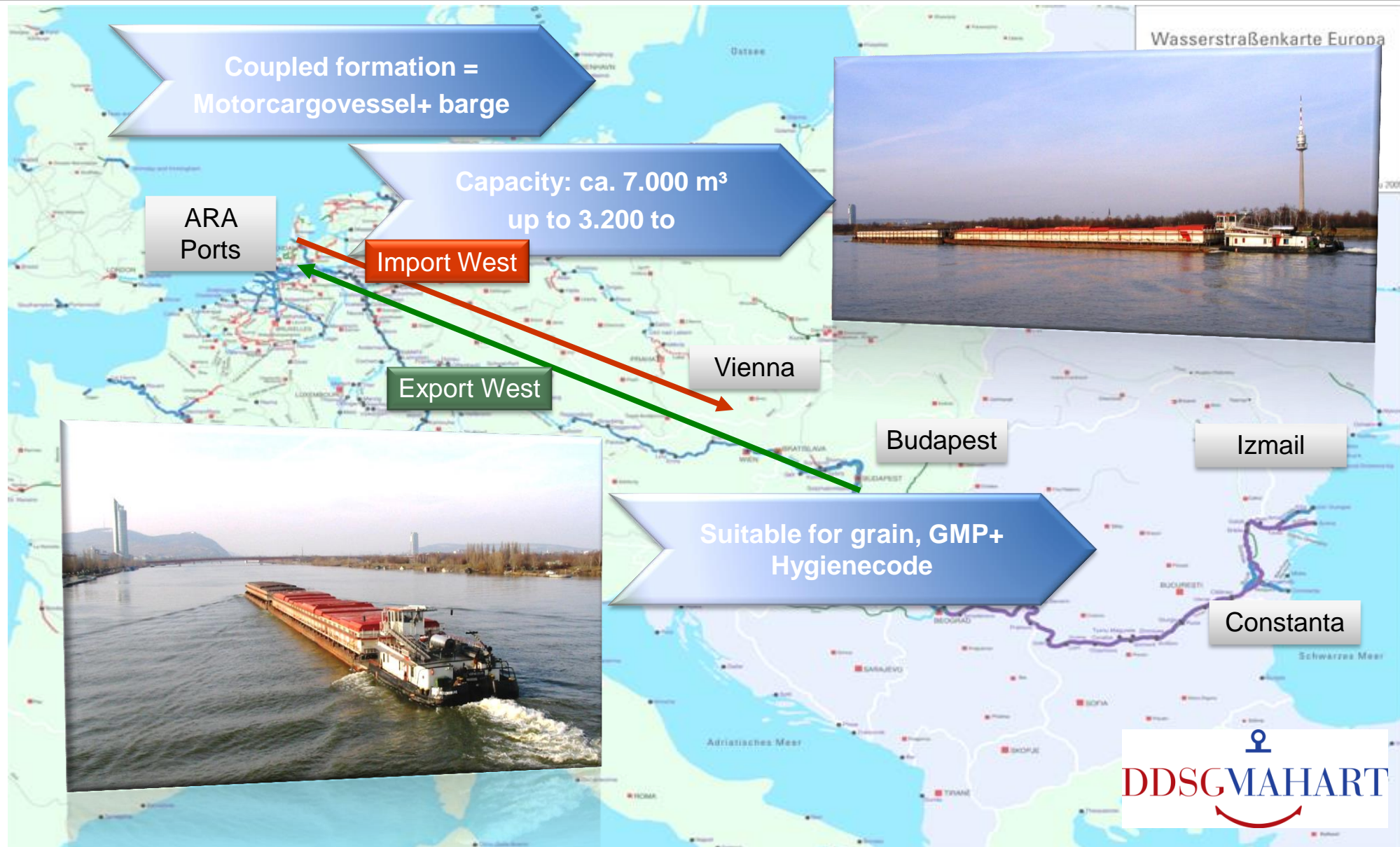
Constanta

Transported cargo (in k tons)		West Line	Upper Danube Lines	East Line
2015	1.975	206	106	1.663
2016	2.274	234	56	1.983





# First – DDSG Logistics Holding GmbH – West Line





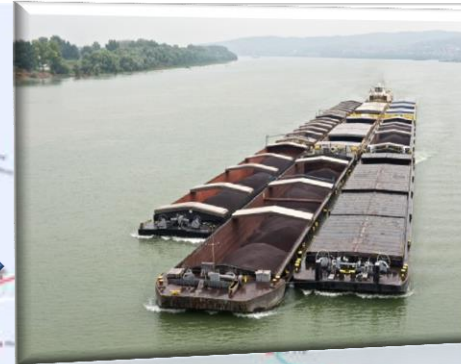
# First – DDSG Logistics Holding GmbH – East Line



big convoys =  
pusher + up to 9 barges

ARA  
Ports

Capacity : ca. 18.000 m<sup>3</sup>  
up to 17.000 to



Linz

Vienna

covered + non-covered  
units, GMP+ Hygienecode

Import East

Izmail

Budapest

Export East

Constanta





# First – DDSG Logistics Holding GmbH

## – East Line / Feeder System





# First – DDSG Logistics Holding GmbH – Upper Danube





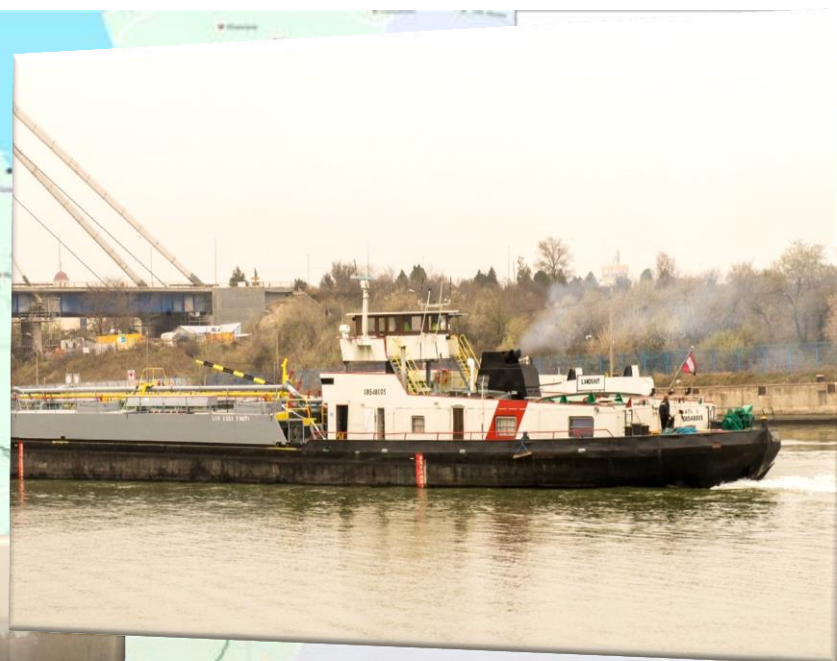
# First – DDSG Logistics Holding GmbH

## – Tank Fleet



Convoys =  
Self-propelled + up to 3  
barges

Capacity : up to 5.500 to

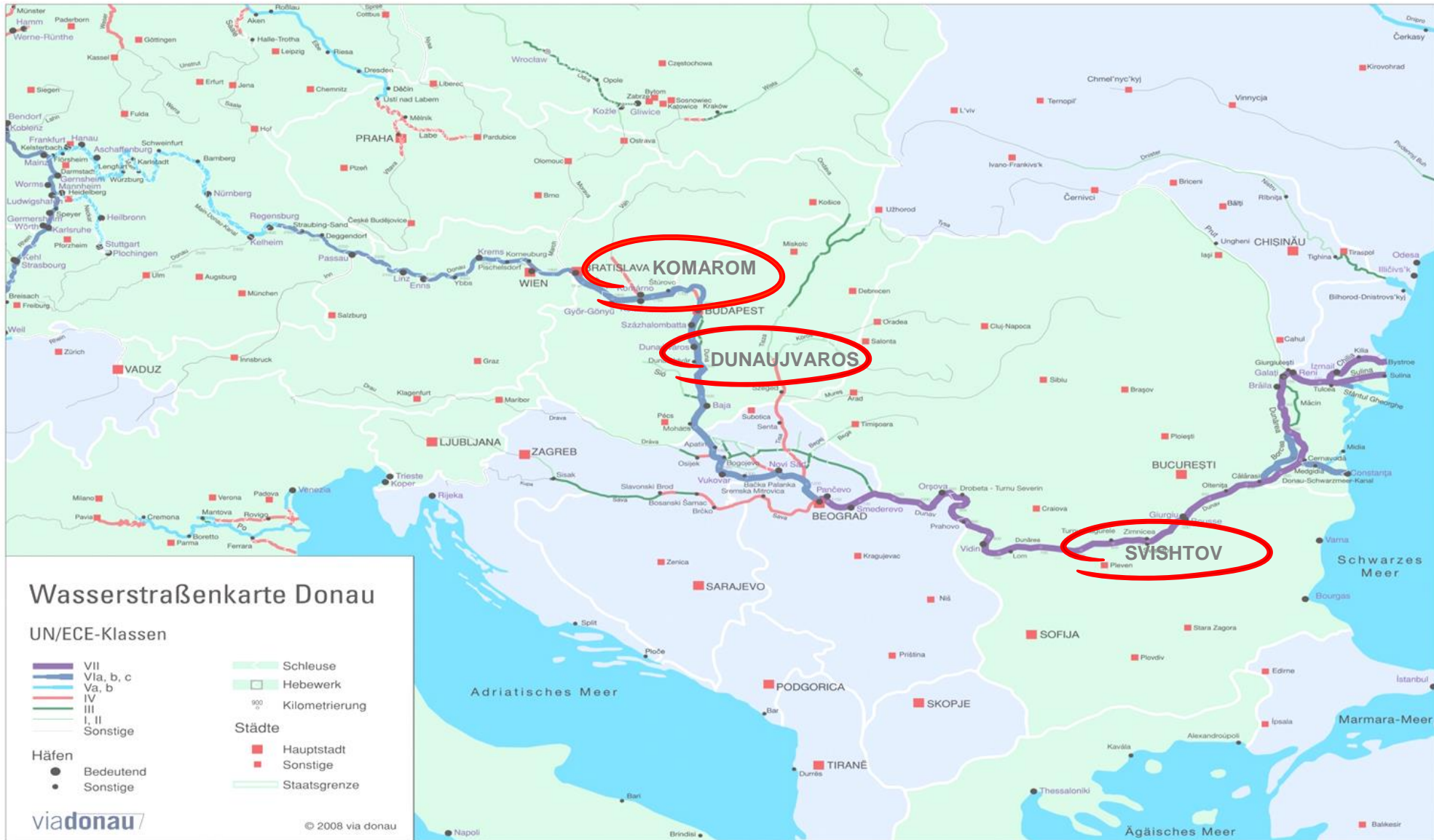


Liquid cargo transports  
with valid EBIS check





# First – DDSG Logistics Holding GmbH – Floating Crane Operations



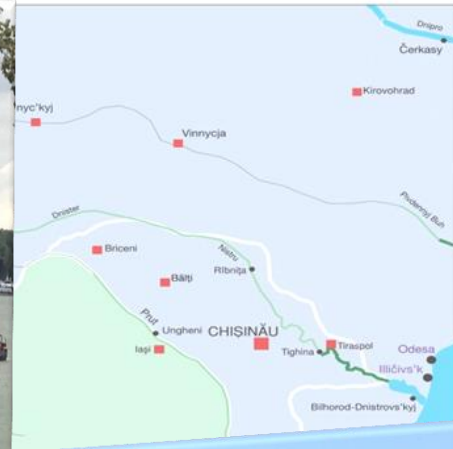
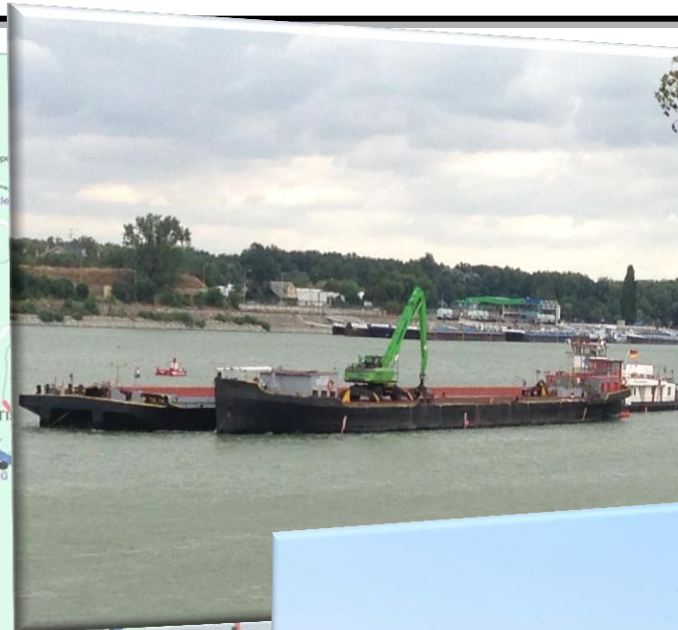


# First – DDSG Logistics Holding GmbH – Floating Cranes



Bought new crane

Modernized 2 old cranes



Wasserstraßenk

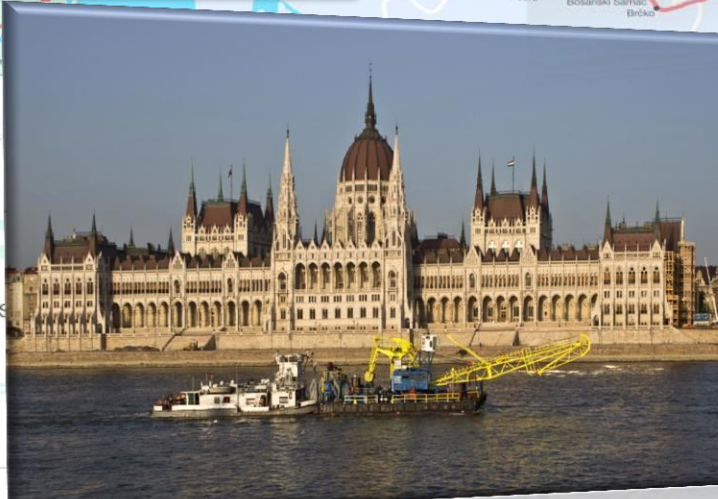
UN/ECE-Klassen

- VII
- Via, b, c
- IV
- III
- I, II
- Sonstige

Häfen

- Bedeutend
- Sonstige

viadonau/





# First – DDSG Logistics Holding GmbH – Leasing And Repair



**3 x REPAIR SHOPS  
along the Danube**



# First – DDSG Logistics Holding GmbH

## – Bunkering Service



- DKM 1.920-1.936 Vienna area
- Market leader with highest quality standards.
- Drinking water and lubricants delivery service
- Dispose of oil emulsive waste
- Bunkering of passenger vessels with our flexible bunker boats





# First – DDSG Logistics Holding GmbH

## – Requirements For River Transports



New Contacts

Analysis Of Potential  
Markets

B2B Events



# Thanks for your attention!

