

Biomass in the electricity sector and EU Policy developments on biomass

Fanny Langué and Arthur Wellinger

November 2013



About AEBIOM

AEBIOM mission:

Since 1990, we are the common voice of the European bioenergy sector

AEBIOM Members:

- 36 national associations
- 80 companies from all over Europe
- 4,000 indirect members represented

Where located:

AEBIOM is located in the Renewable Energy House
In Brussels next door to the European Biogas Association (EBA) and some 10 other RES Associations

AEBIOM hosts:



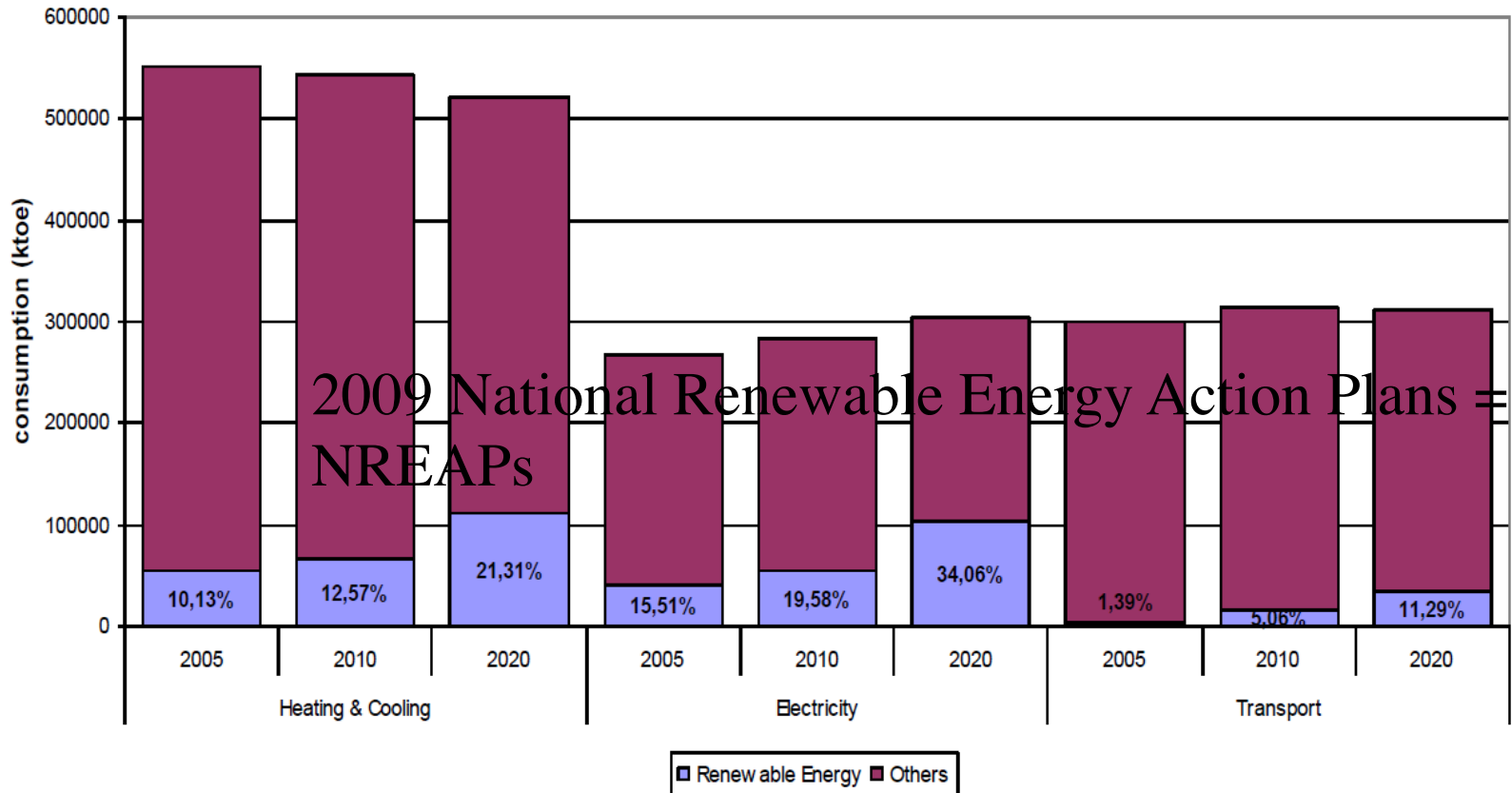


-20%

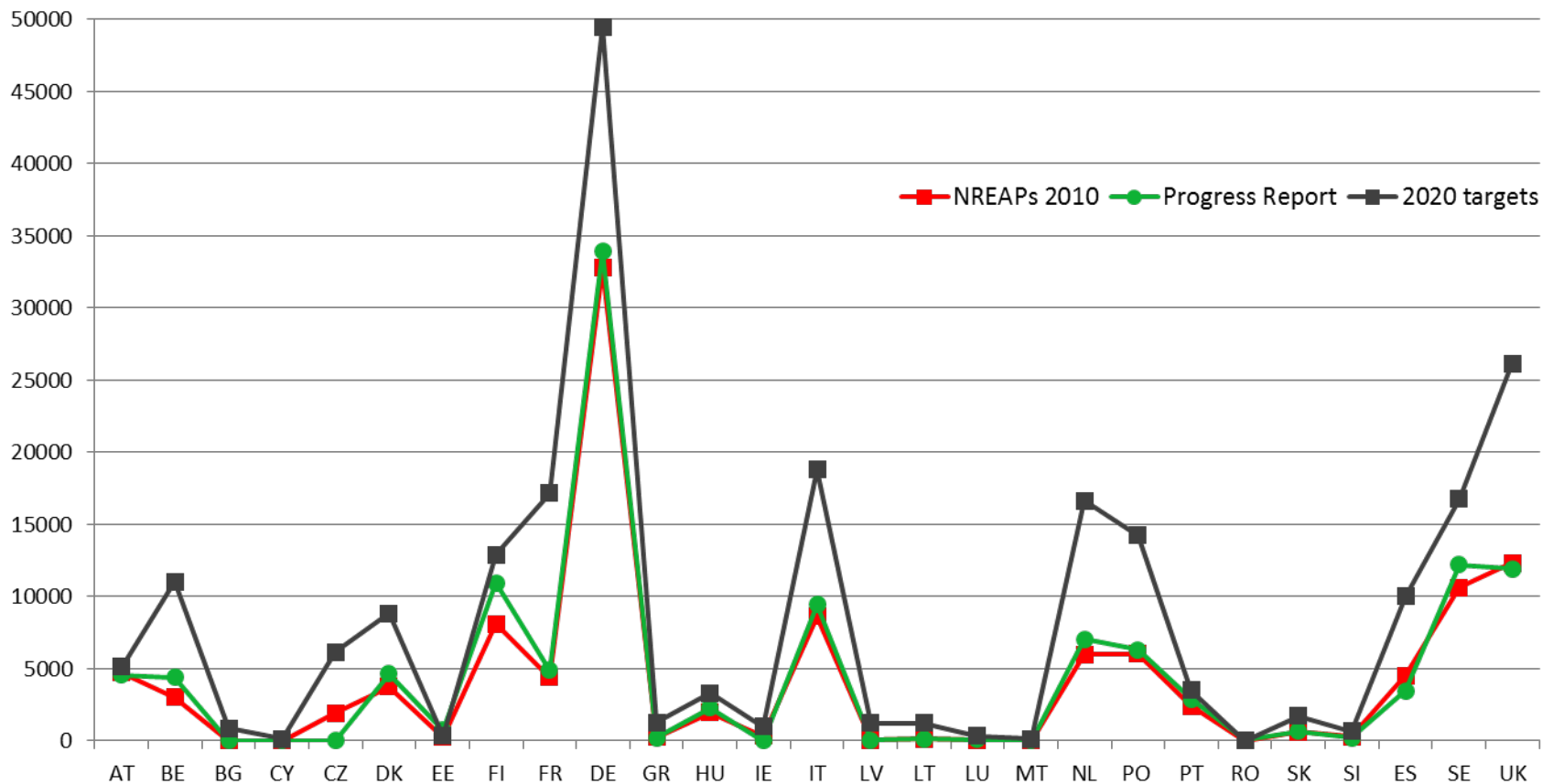


Greenhouse gas levels

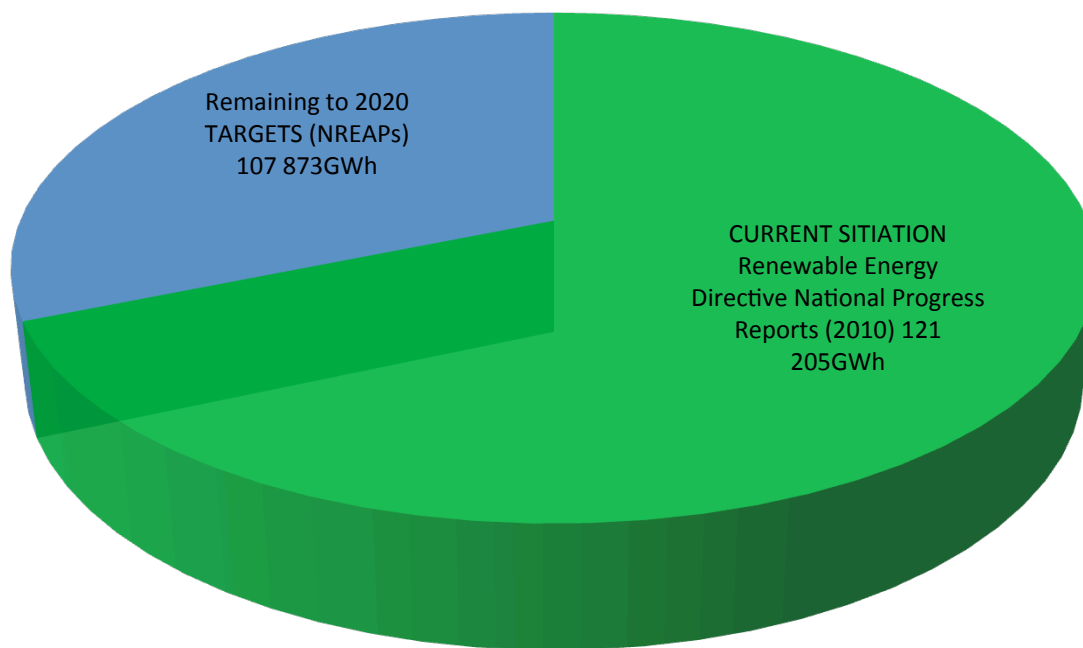
EU renewable energy share in the three sectors



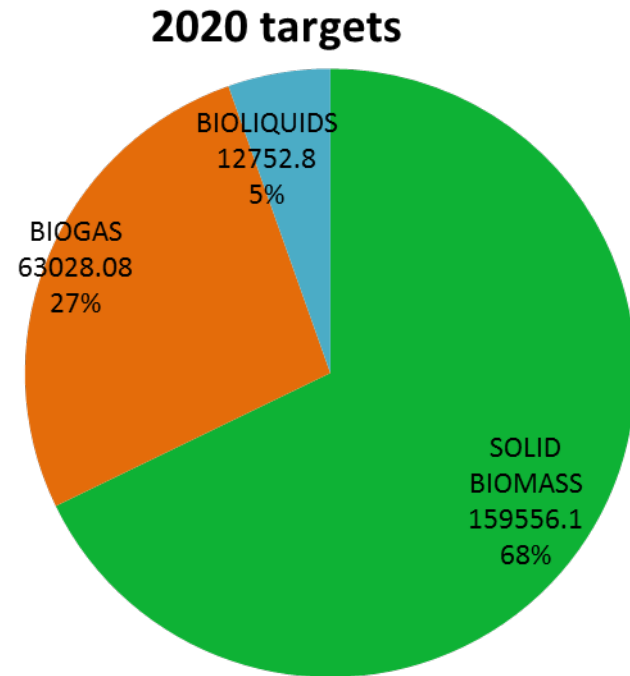
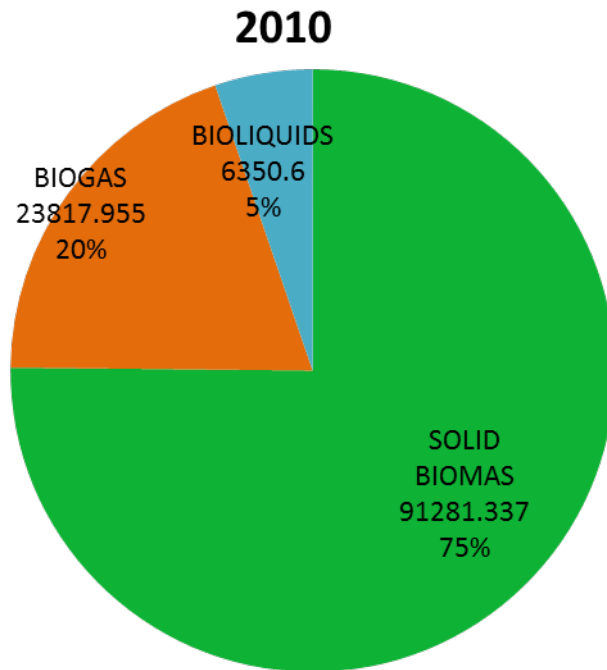
Gross electricity generation from biomass (GWh)



Bioelectricity in Europe: from 2010 to 2020



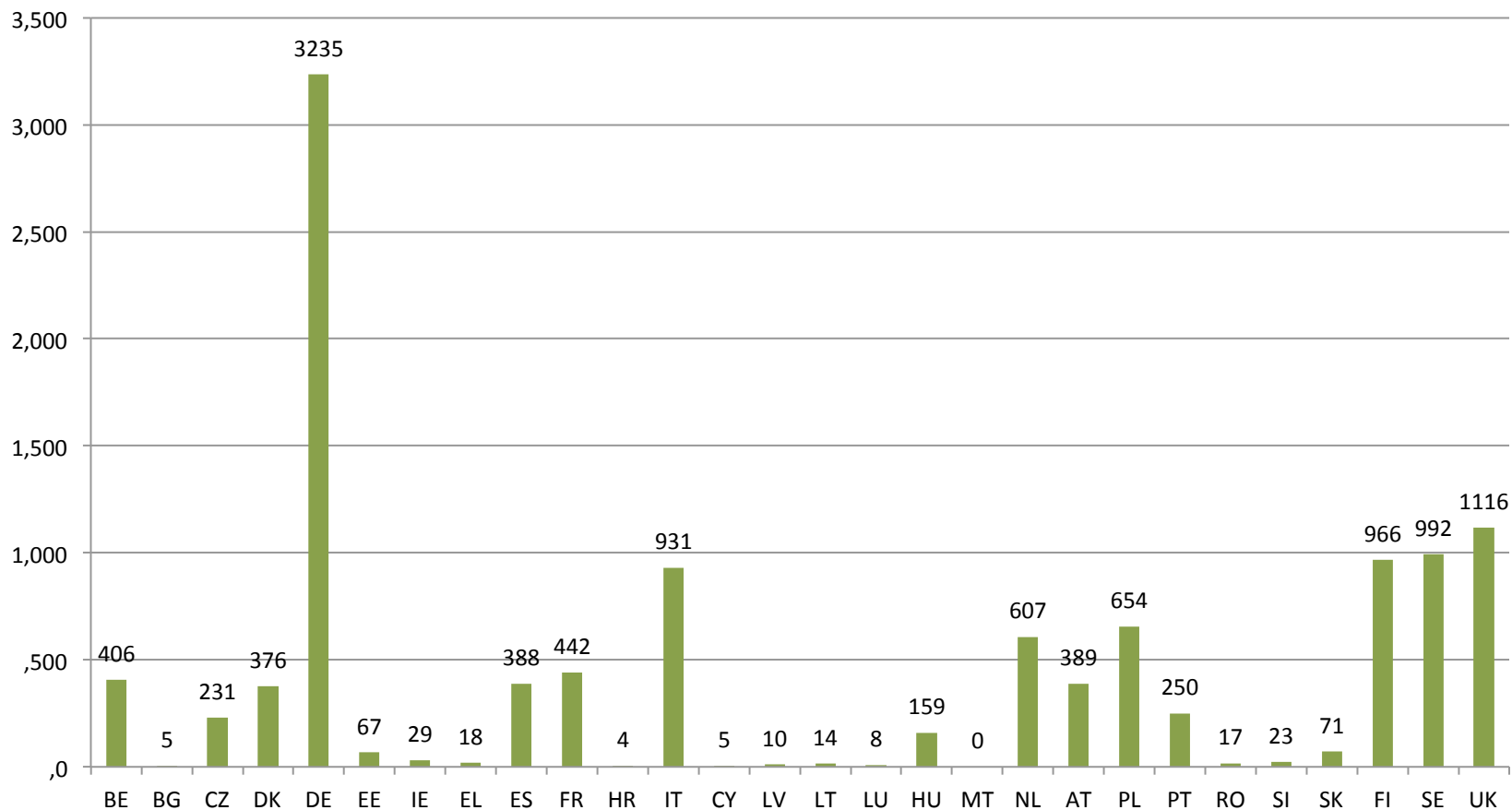
Bioelectricity in Europe in 2010 and 2020



Source: National Progress Reports (submitted under the Renewable Energy Directive) and NREAPs



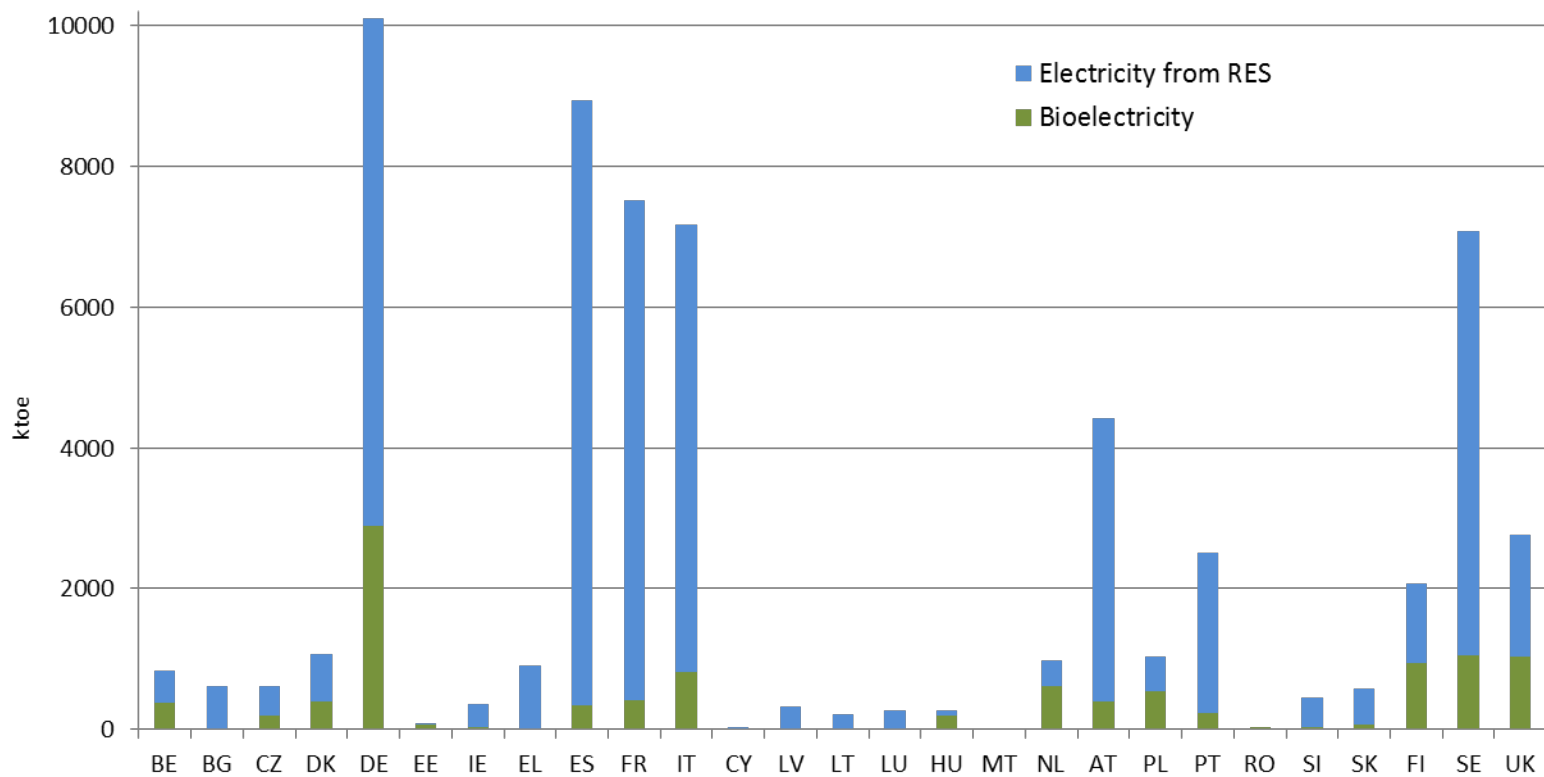
Final energy consumption of bioelectricity in 2011



Source: Eurostat



End use of electricity from water, wind and solar compared to bioelectricity in 2010



Source: Eurostat



Global trade routes



Source: Louisa Blair, argusmedia



Global supply and demand snapshot

Estimated 760 pellet production plants (over 10,000t) with 42mn tonnes of capacity per year

EU consuming ~ 19.5mn tonnes - 11.4mn industrial and 8mn residential

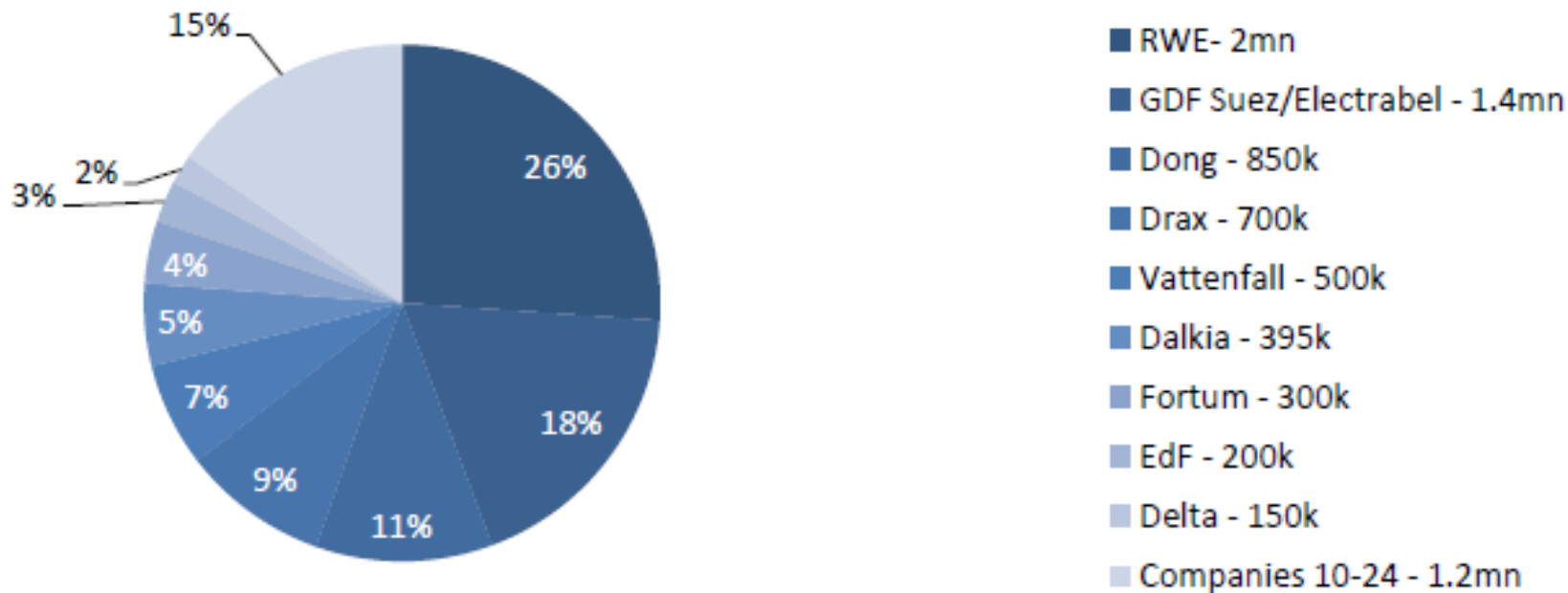
Rest of the world consumes around 5mn tonnes of wood pellets per year

Source: Louisa Blair, argusmedia



European Industrial Wood Pellet Consumption 2012

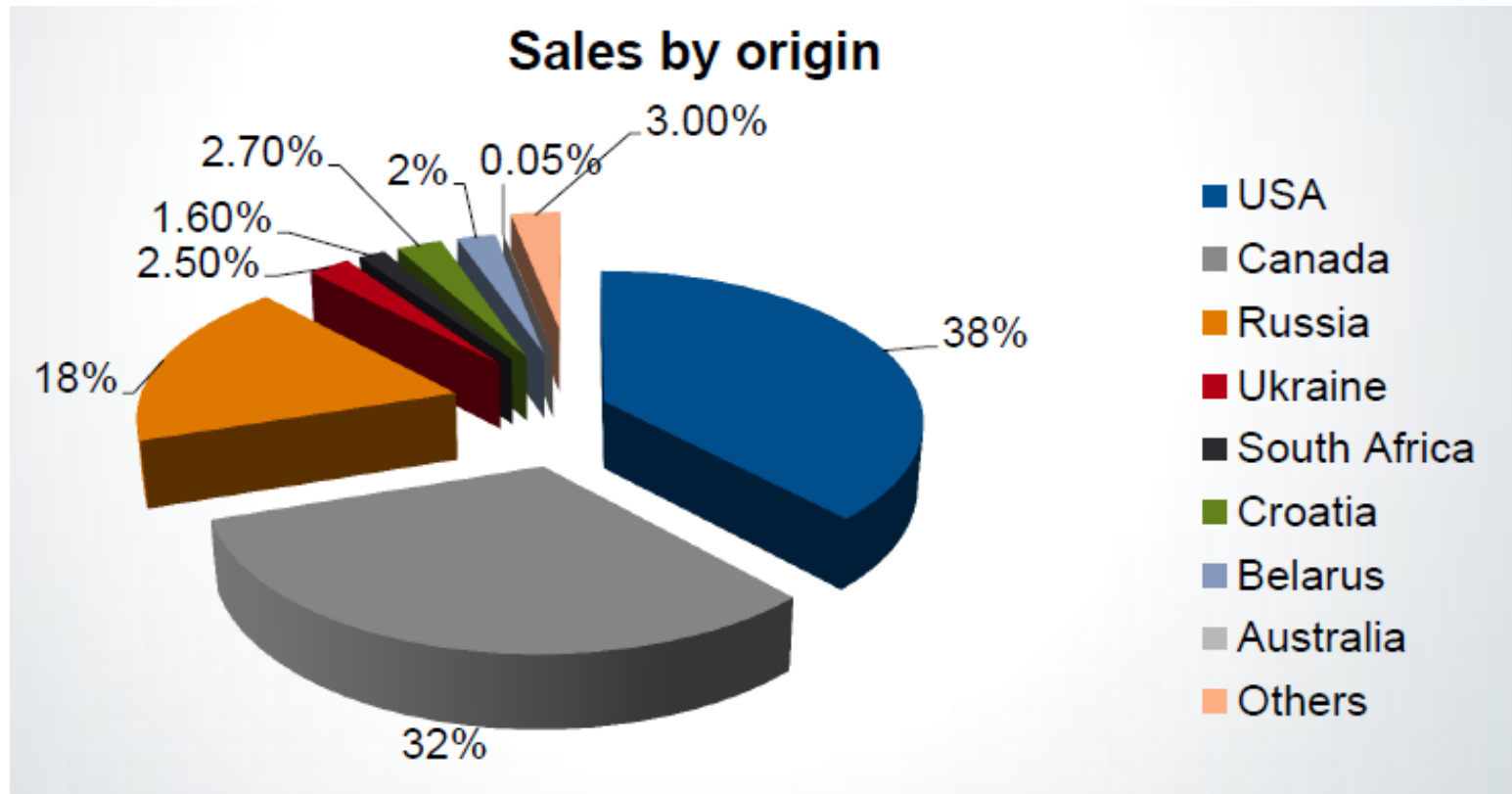
In 2012 the largest 9 end users consumed almost 7mn tons of industrial pellets



Source: Louisa Blair, argusmedia



Industrial wood pellet import to EU 2012



Source: Arnold Dale, Ekman



Continued growth of wood pellet market in Europe

- **Denmark**—Dong energy has announced the conversions of both Aalborg and Aarhus to wood pellet use this together with other projects in Scandinavia will create an extra 2.5 million tons of demand
- **Holland** – An ambitious plan for 9% of all electricity generation to be provided by solid biomass by 2020 this amount would equal 6 million tons of wood pellets but there is uncertainty about how this will be achieved
- **Belgium** – Currently utilise large amounts of wood pellets and this will continue with an expected total use of 3 mill tons by 2020
- **Germany** – Despite the closing of all nuclear power plants there has been no rush to replace lost output with biomass due to lack of support
- **France** – There are many plans for the use of biomass in heat and power installations
- **Spain** – Due to the economic crisis the government has withdrawn subsidies once again disappointing investors
- **Poland** – A lack of political clarity about the use of biomass. Utilities burning biomass expected a new policy to be in place by 2013. That looks likely to be delayed by 6-12 months



Source: Arnold Dale, Ekman



The barriers:

Sustainability criteria for solid and gaseous biomass

- **RED: binding sustainability criteria for biofuels**
 - GHG saving criteria
 - Protection of land with high biodiversity value and land with high carbon stock
- **Solid and gaseous biomass in heating and electricity**
 - Recommendations in 2010
 - Report was leaked in mid 2013: simply not feasible
 - Different national legislations in place on solid biomass sustainability (UK, NL, BE, ...)



Sustainability criteria for solid and gaseous biomass

- August 2013 - EU media reported about a draft Directive under discussion
 - No information from the Commission on the timetable. It might take longer than 2015 if it is not hurried before that
- May 2014 elections of the European Parliament. New Commission will start working in October 2014
- NB: the recently adopted **EU forestry strategy** gives a mandate to Member States to define criteria and indicators related to sustainable forest management at EU level and for all uses: contribute to the EC work on sustainability?



Sustainability criteria for solid and gaseous biomass

- **AEBIOM in favour of EU harmonised legally binding criteria**
 - Strengthen public acceptance
 - Facilitate trade and secure investments
- The criteria should be **flexible and proportional**
 - Consistency with the biofuels criteria
 - Take the existing national rules and legislations into account
 - Exemption of small installations and small biomass producers



Carbon accounting

- Biomass plays a significant role in the **EU renewable energy picture**
 - **Multiple studies** on carbon implication of wood energy. Conclusions vary from large carbon mitigation benefits to opposite extreme
 - In this context, the bioenergy sector considers it important to present its views and identify the inappropriate data and assumptions used in certain studies
- ➔ AEBIOM and EBA were also participating in the JRC/IEA-B meeting in Arona



Carbon accounting – Bioenergy sector report

Forest Sustainability and Carbon Balance of EU Importation of North American Forest Biomass for Bioenergy Production



With the collaboration of:

Drax

GDF SUEZ / Laborelec

Essent NV

E.ON Climate & Renewables

Danish Energy Association

Vattenfall AB

Study available on
www.aebiom.org



Carbon accounting – Bioenergy sector report

- Focus on **South East US and British Columbia Canada**, as the current and future main regions of EU biomass imports
- **Objectives:** inform stakeholders on biomass sourcing, sustainable forest management practices, forestry commercial realities and modelling results based on realistic data from the field
- When **data and assumptions from the field** are used in models, pellets achieve **significant GHG savings** and make meaningful contribution to climate change mitigation



Energy and climate EU Policy post 2020

- Green Paper “*A 2030 framework for climate and energy policies*” – Spring 2013 – Stakeholders consultation
- **Support schemes:** challenge to ensure over time that RES become more cost-efficient
- **EU RES binding target?** : Could renewable energy development be achieved by a CO2 reduction target only?
- Replies available online
- **Next steps:** Commission to present its view in early 2014



AEBIOM

EUROPEAN

BIOENERGY

CONFERENCE

12 - 13 - 14 MAY 2014

Renaissance Brussels Hotel

www.aebiom.org/conference



Programme Overview

- European Legislation
- Pellets
- Sustainability and certification
- Company profiles
- Networking Dinner
- B2B meetings
- Visits to bioenergy plants

Why Sponsor the event?

Show leadership!

Brand exposure!

Networking opportunities!

Organized by:



In cooperation with:



Thank you for your attention!

**For further information, you can contact
Fanny.langue@aebiom.org**

www.aebiom.org

