

# International wood pellet trade for Small-scale heating in the EU

CEBC

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Schipfer F., Kranzl L., Olsson O., Lamers P., Wild M.

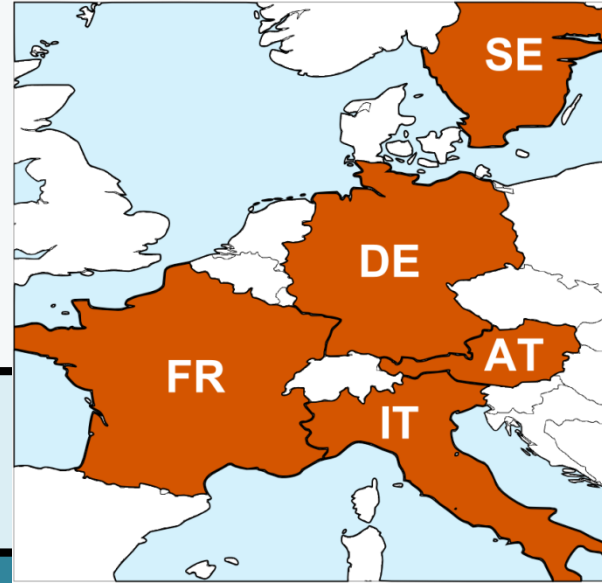


## Introduction

International bioenergy trade exhibited strong growth,  
& wood pellets are top bioenergy carrier.

EU is the main importer using pellets for power and heat,  
32% of global demand in 2014 was for heat in these MS →

Drivers and barriers for trade are often discussed,  
not the reasons behind the specific bilateral trade patterns.



Source: own illustration based on rworldmap

Are 1) residential wood pellet prices 2) exchange rates and 3) seasonality determining bilateral trade? Are wood pellets a commodity and focus country markets co-integrated?

## Introduction

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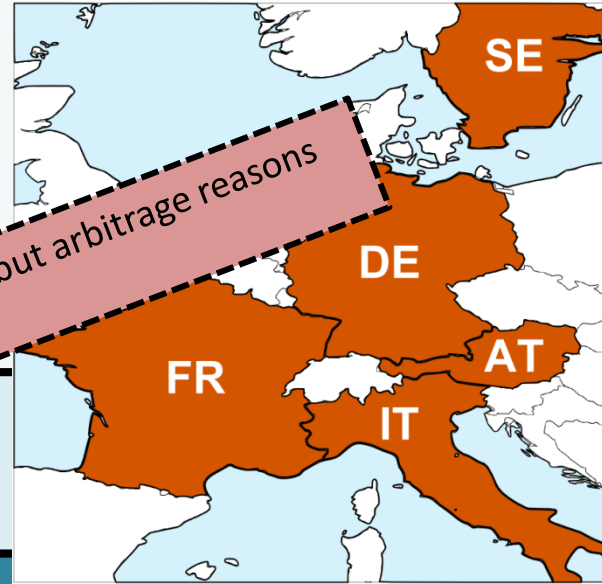
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Drivers and barriers for trade are often different from  
not the reasons behind the current trade patterns.

### Hypothesis

Absolute shortages in national production drive total import but arbitrage reasons  
are decisive for trade patterns.

Are 1) resident pellet prices 2) exchange rates and 3) seasonality determining  
bilateral trade? Are wood pellets a commodity and focus country markets co-integrated?



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Looking for statistical significance in linear models:

Discussion of results with experts

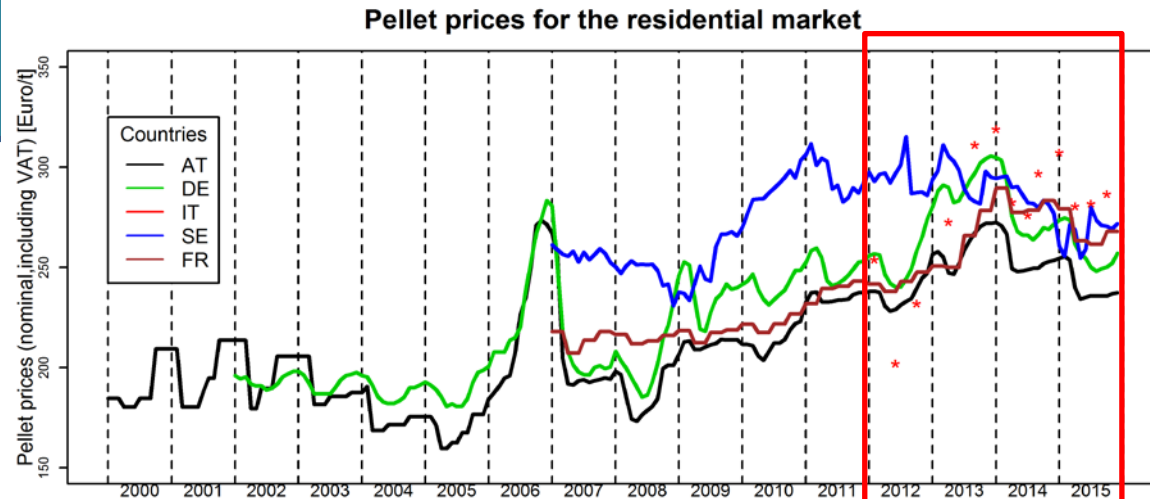
International trade in goods statistics (ITGS) from Eurostat:

- Monthly bilateral trade since Jan.2012
- In quantities [kilo tonnes /month] and
- In value [€/month] for
- intra-EU trade (arrivals & dispatches) and
- extra-EU trade (imports & exports)

Seasonality •

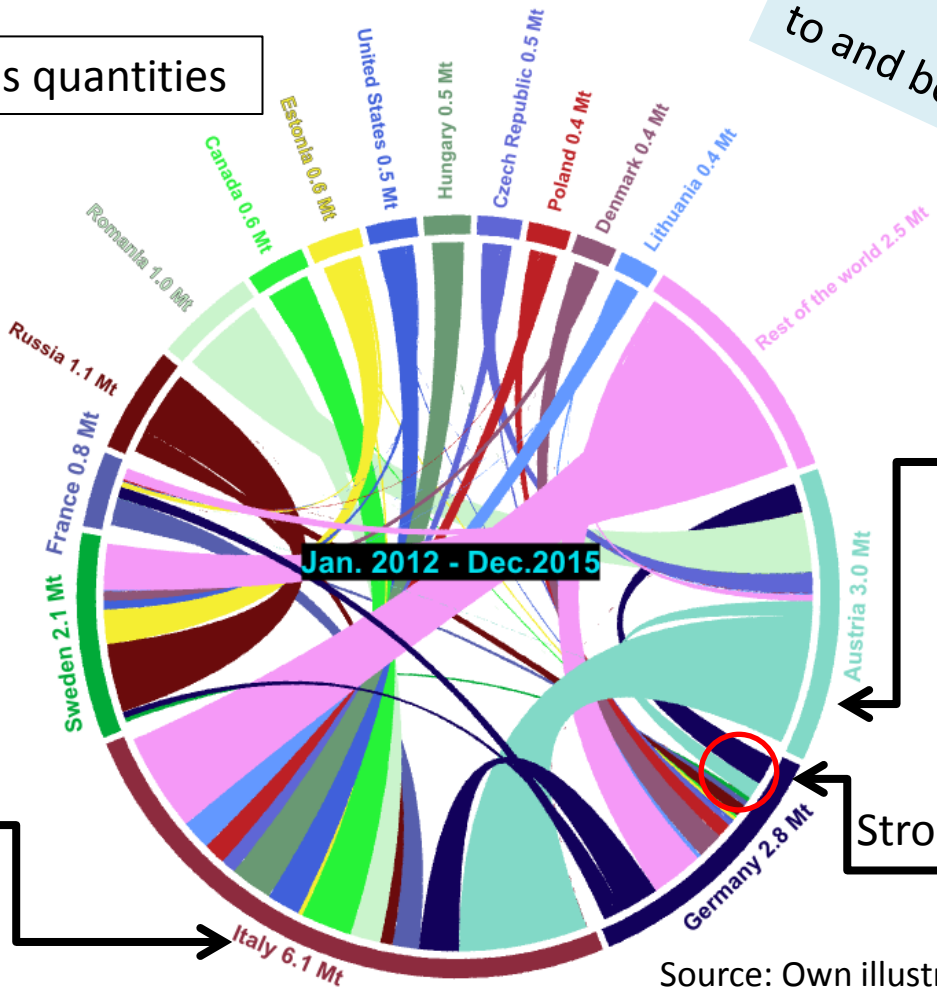
Exchange rates •

Residential wood pellet prices •



Imports and arrivals quantities

Cumulated int. trade to and between the focus countries



Largest uni-directional trade

Strongest bi-directional trade

Main receiving MS

Source: Own illustration based on Eurostat (2016)

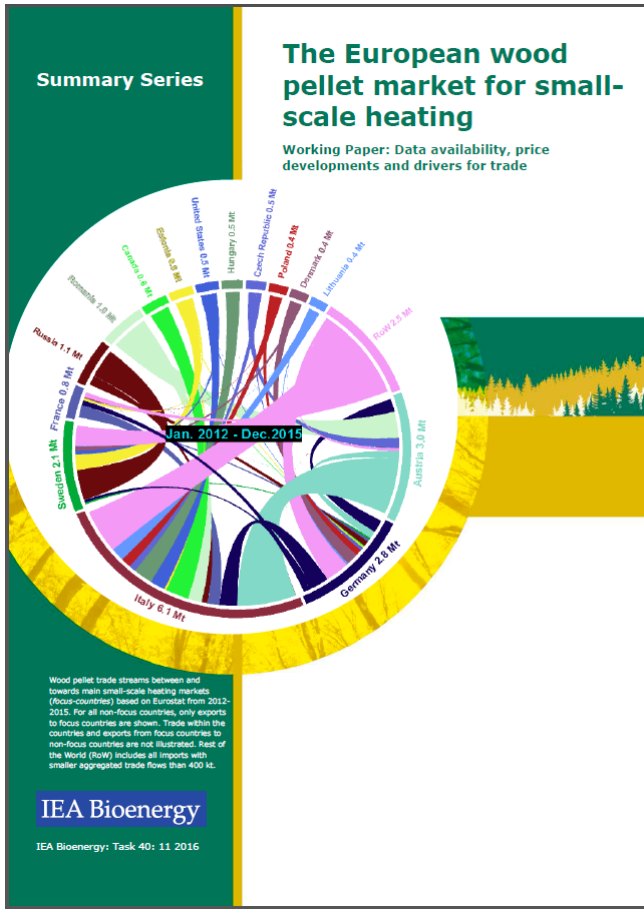
# The European wood pellet market for small scale-heating - RESULTS

- Clear limitations in data availability and quality
- Trend of increasing cross-border trade leading to a view detectable interactions between price differences and trade flows
- However, market related properties of the commodity do not allow composition of econometric modelling framework for observed trade patterns

# The European wood pellet market for small scale-heating - CONCLUSIONS

- Development towards competitive spatial equilibrium should be supported:
  - Access to adequate information! Harmonised approach for collecting market relevant data – more accurate and detailed output of statistical authorities
  - Continued fostering of development of price benchmarks necessary
  - Fungibility of wood pellets through applying sustainable standards next to technical standards & ensure all end users perceive fungibility
  - Reduce financial and technological risks for (renewable energy) storage
  - Foster convergence of small- and large scale market

<http://bioenergytrade.org/publications.html>



# The European wood pellet market for small-scale heating

## Scientific Paper Summary: Data availability, price developments and drivers for trade

Schipfer F., Kranzl L., Olsson O., Lamers P., Wild M.

Publication: 11.2016

Free webinar: 14.03.2017 - 15:00-16:00 CET  
Register here: [schipfer@eeg.tuwien.ac.at](mailto:schipfer@eeg.tuwien.ac.at)



# Further research ideas

- Convergence of small-scale and large-scale market: Improving market organisation vs. pushing smaller producers out of the market
- Market related properties of commoditisation process – comparable developing commodity markets? Inefficient integration; significant unobservable transaction costs; information barriers ...
- Social perception, participation and acceptance: Studying the intrinsic valuation of locally produced bioenergy carriers and the importance of established contacts and contracts in trade

# Thank you for listening – what do YOU think ?

## Further information:

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