



Wood energy workshop
Belgrade, 26./27 November 2007



Wood energy energy markets and trade in Europe



by

Florian Steierer



Hamburg University
Economics of Forest Products
Department of Wood Science



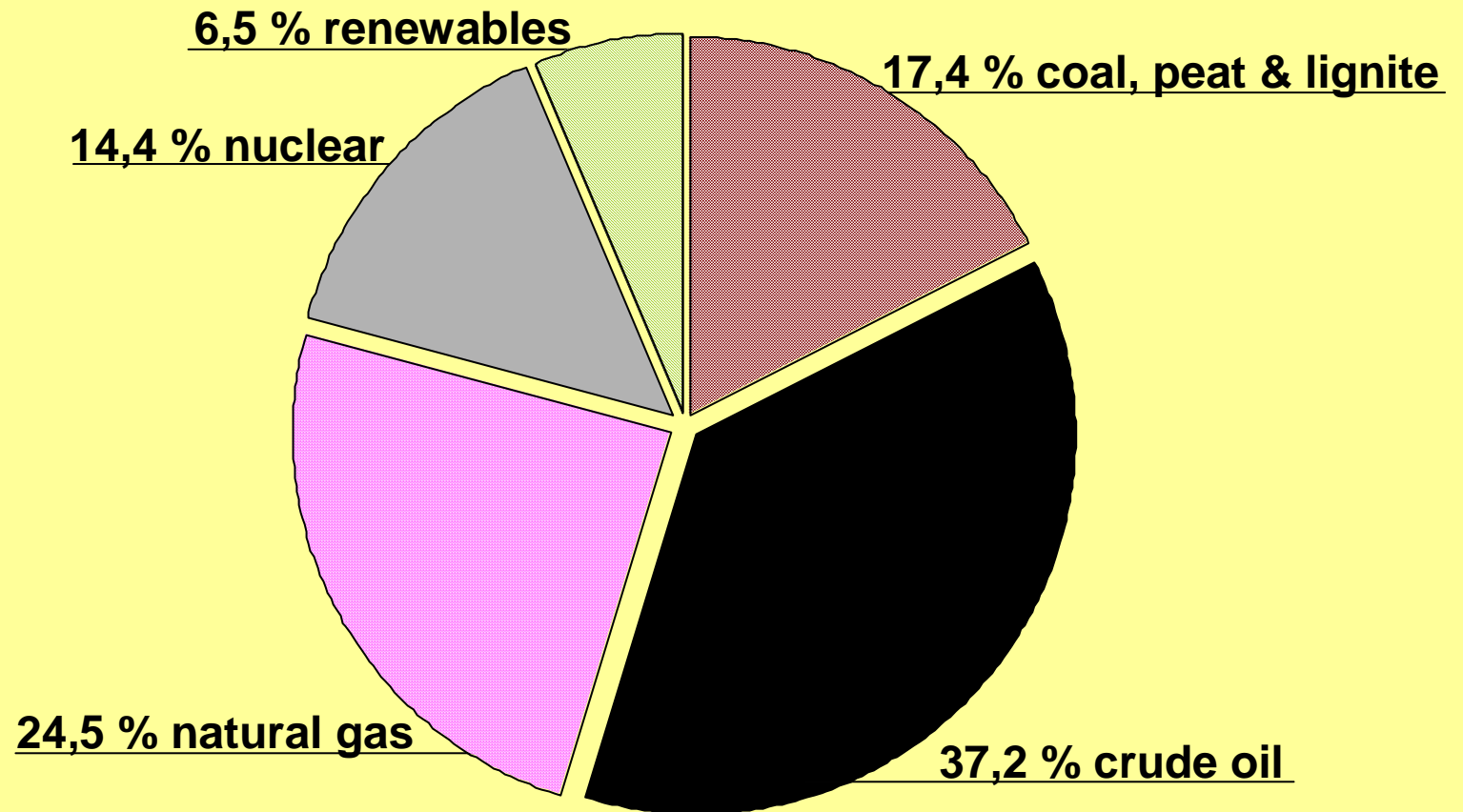
Content

- **Role of wood energy in Europe / selected countries**
- **Sources of wood energy**
- **User of wood energy**
- **Material v.s. energy use of wood fibres today**
- **Impacts of energy policies on wood consumption**
- **International biofuels trade:**
 - **Region**
 - **Europe**
 - **Global**
- **Conclusions**



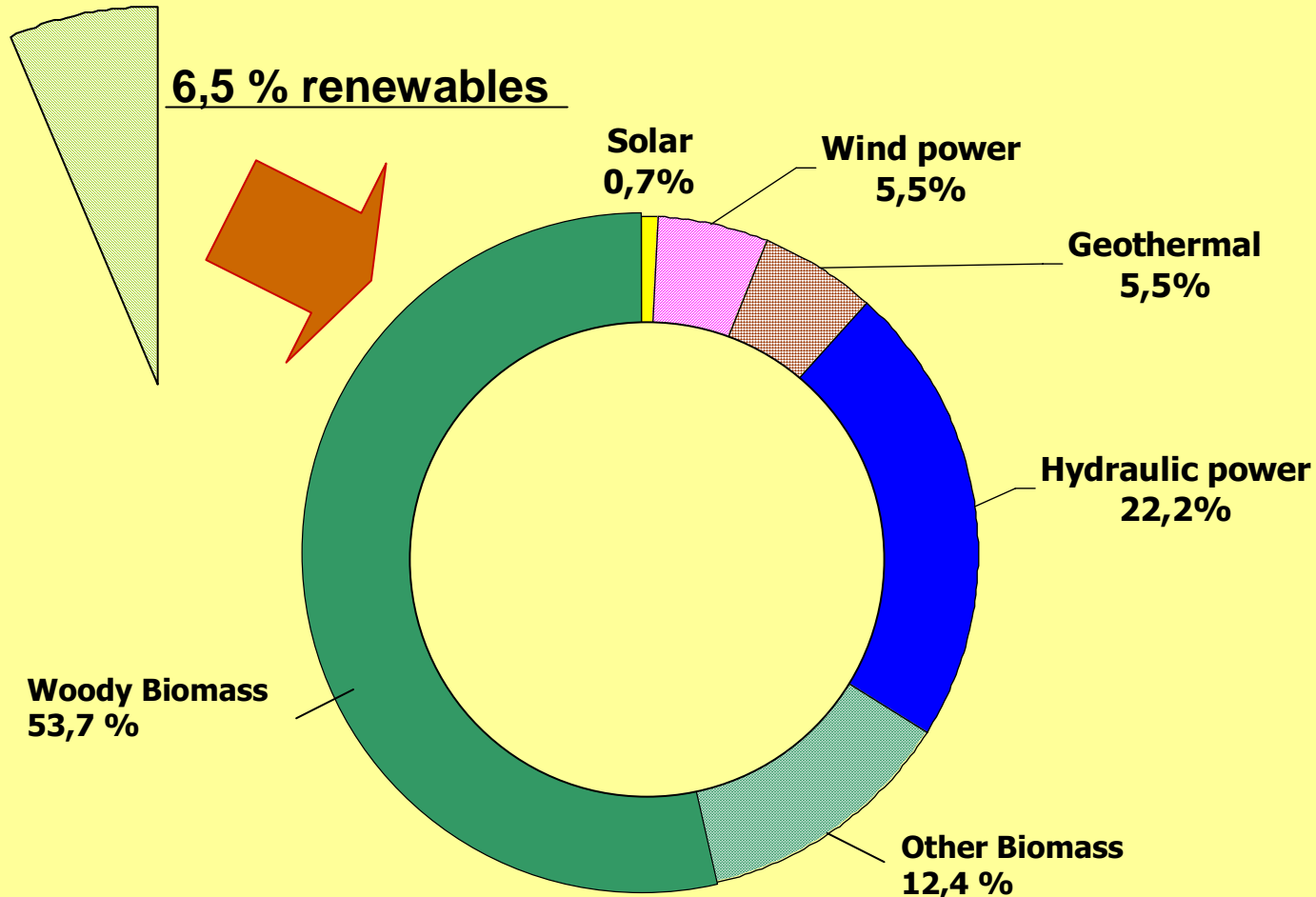
Energy 2005

Gross inland consumption (EU 25)



Source: Eurostat (2007): Yearly statistics 2005

Renewable Energy Sources 2005 (EU 25)

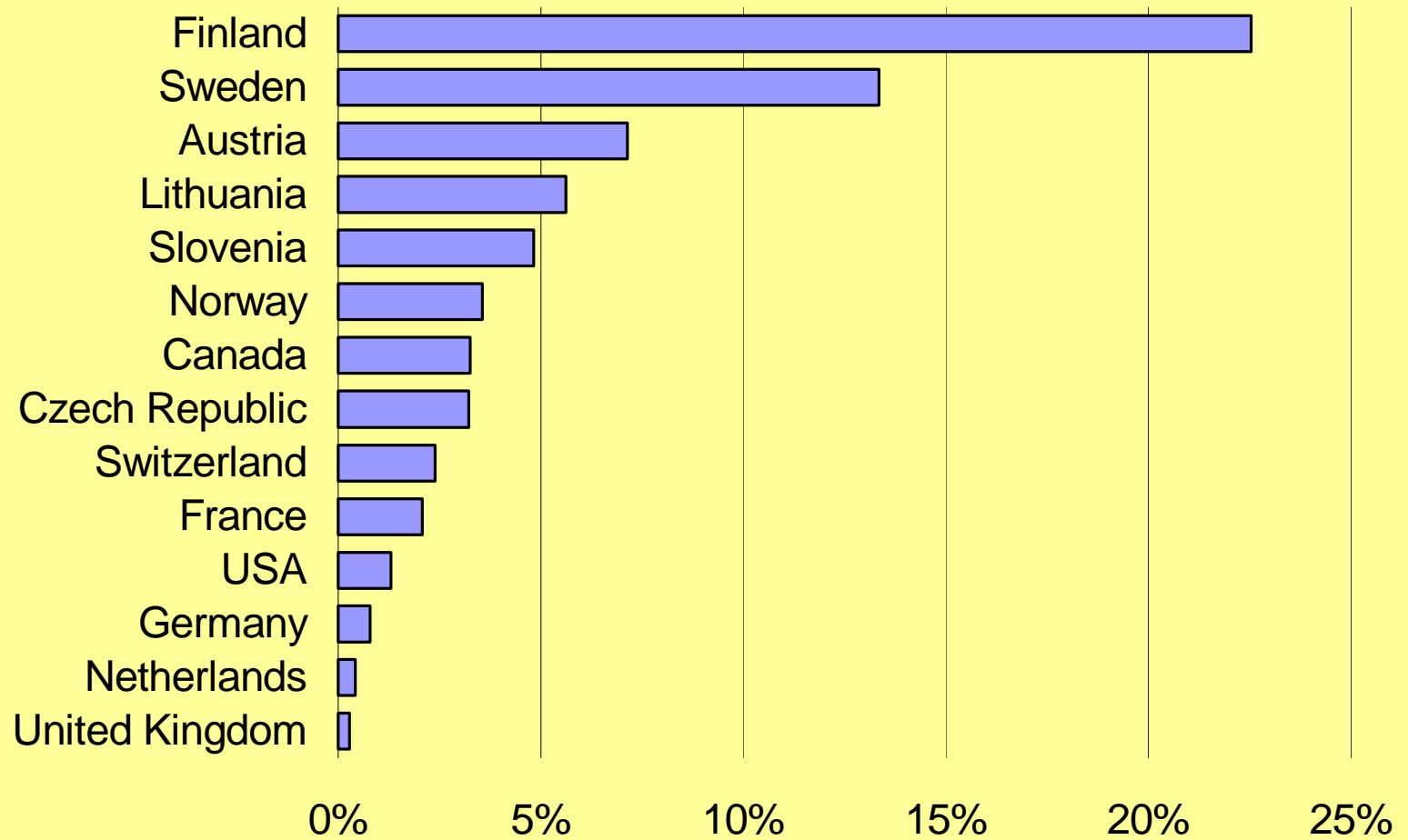


Wood: N° 1 Renewable energy source

Source: EurObserv'ER (modified)

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Wood energy's role



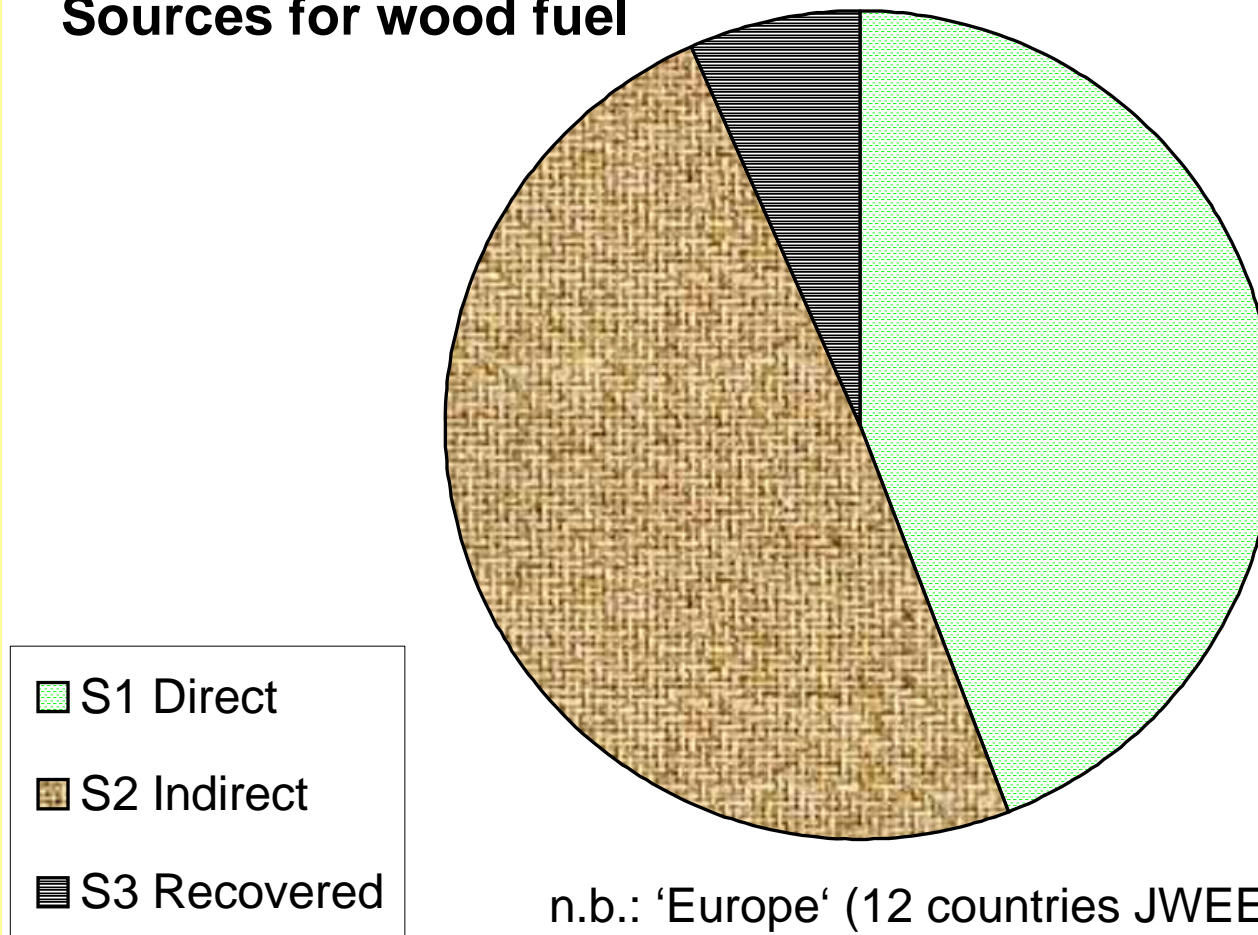
Source: UNECE Joint Wood Energy Enquiry (2007) & IEA Statistics (2006)

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Sources of wood energy

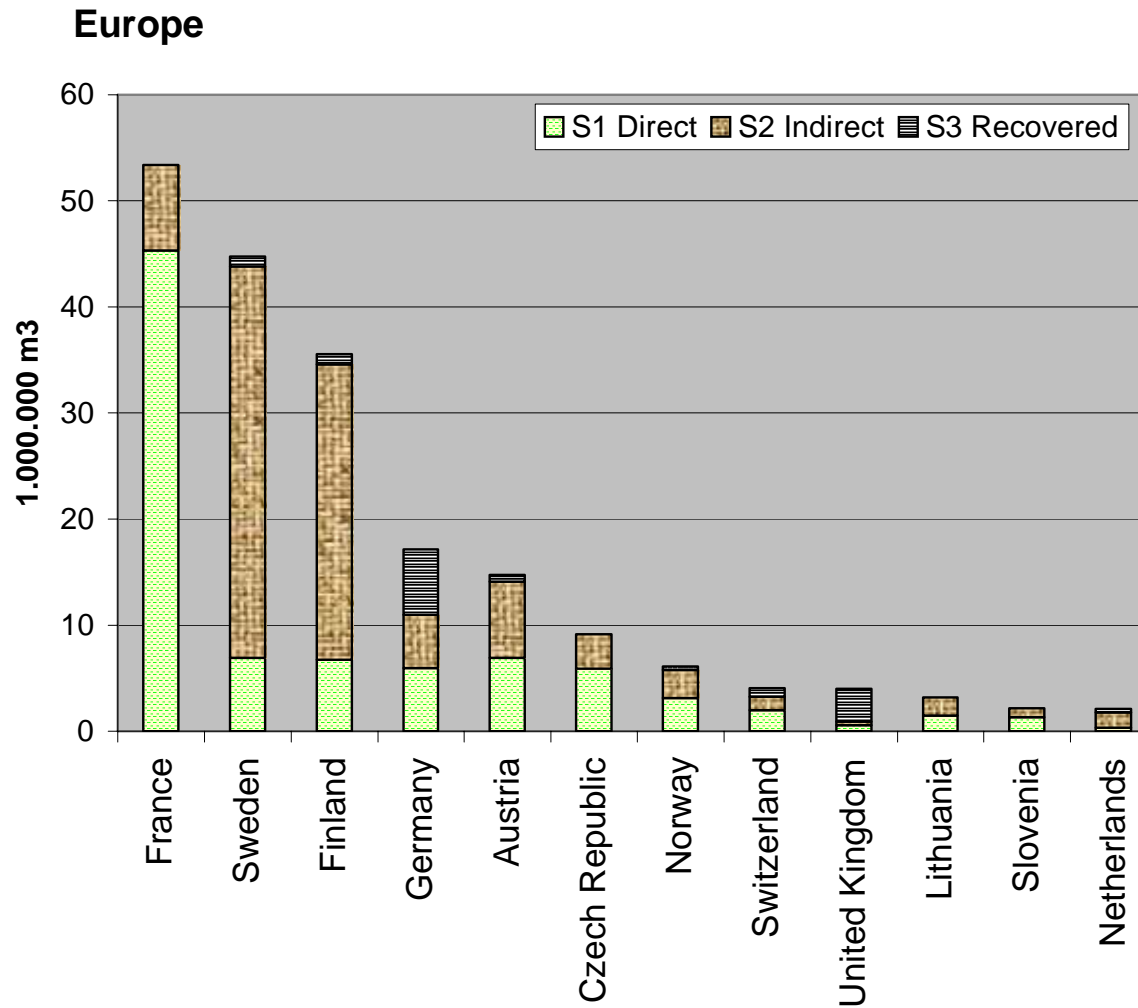


'Europe' Sources for wood fuel

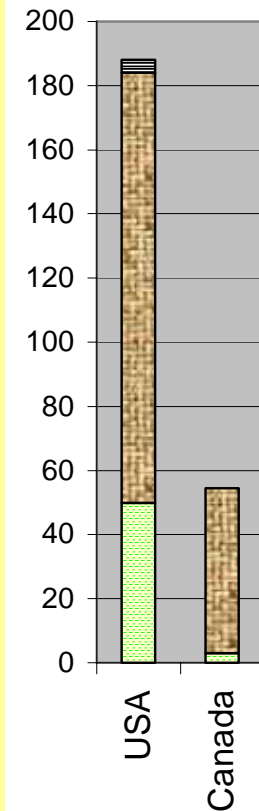


Source: UNECE Joint Wood Energy Enquiry (2007)

Sources of wood energy



North America

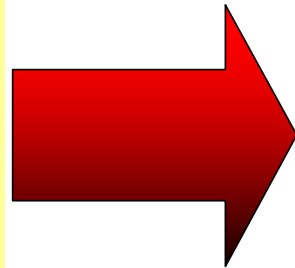


Source: UNECE Joint Wood Energy Enquiry (2007)

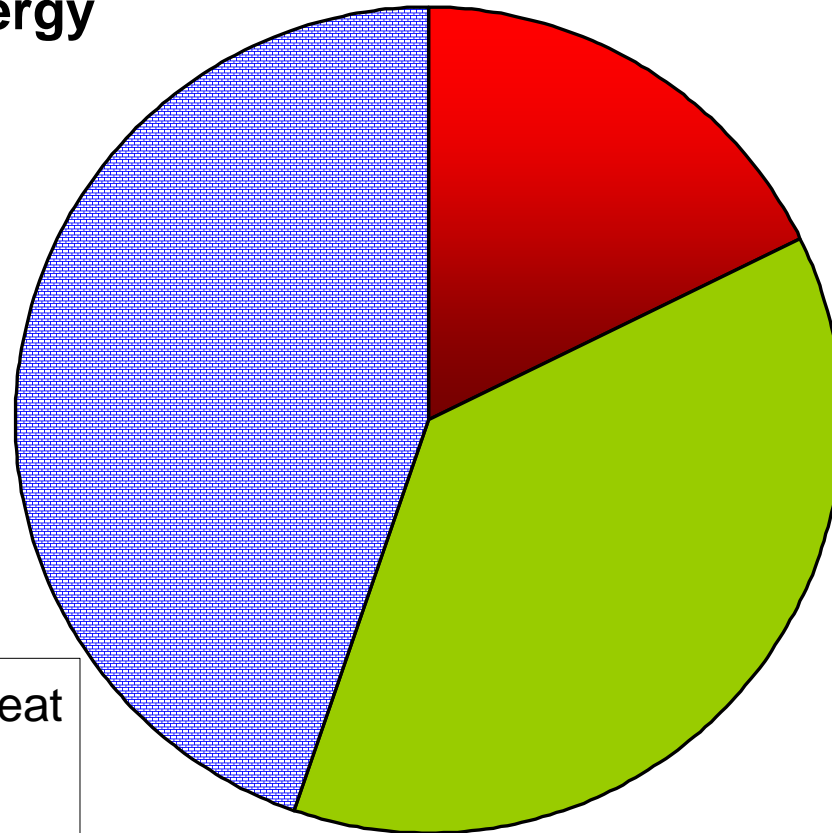
User of wood energy



'Europe'
User wood energy



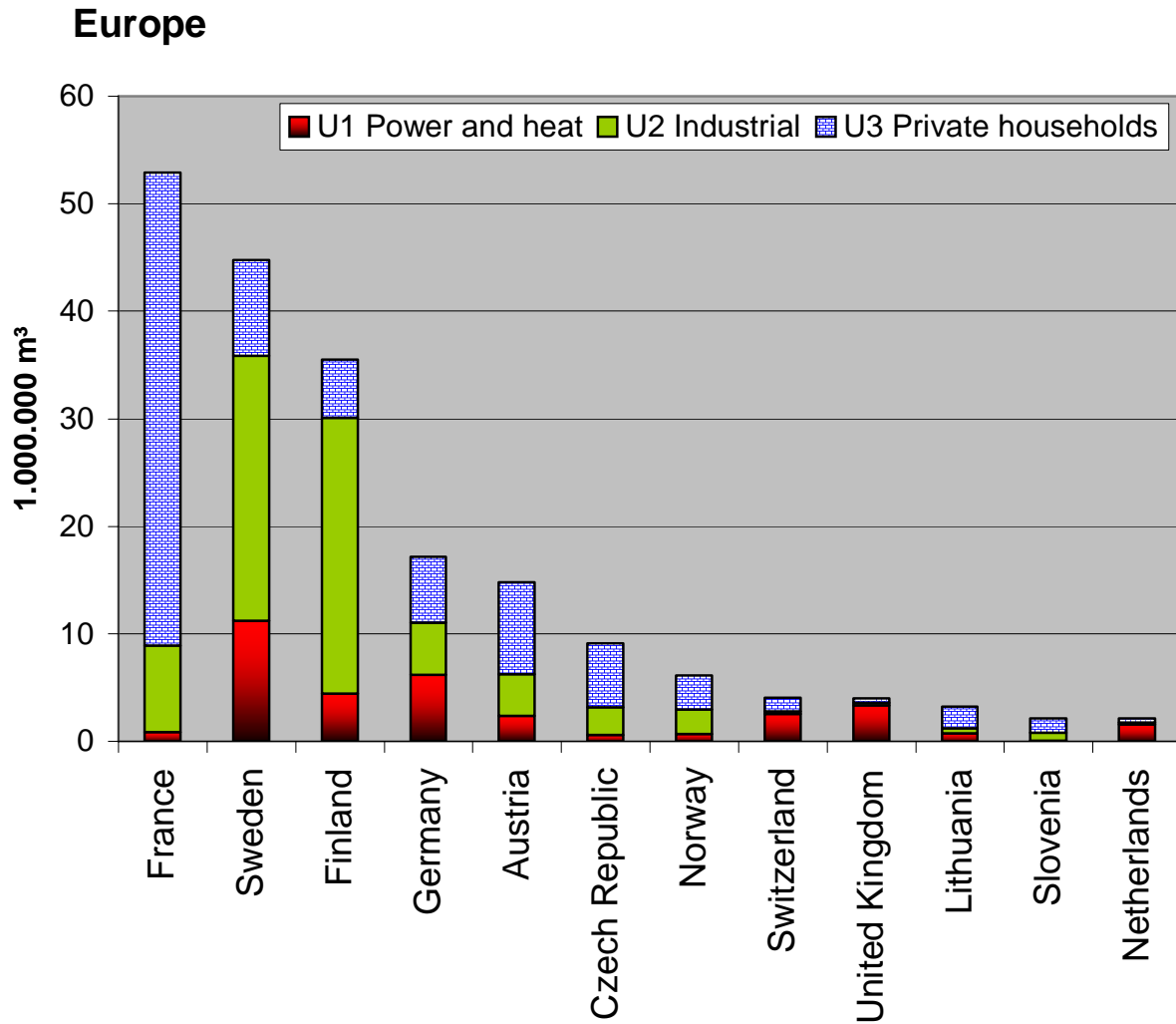
- U1 power and heat
- U2 Industry
- U3 Private



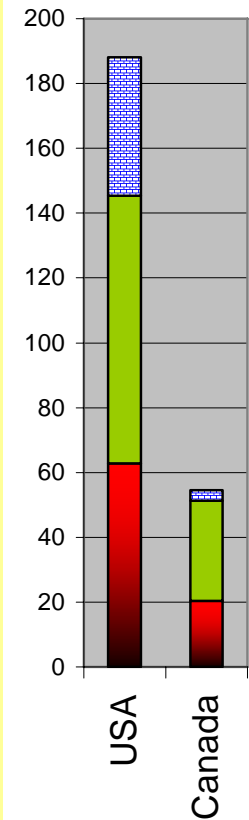
n.b.: 'Europe' (12 countries JWEE)

Source: UNECE Joint Wood Energy Enquiry (2007)

User of wood energy



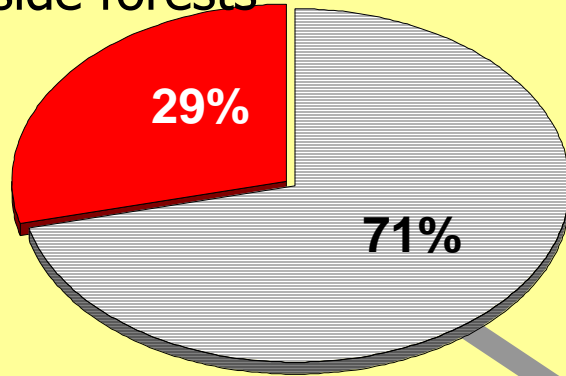
North America



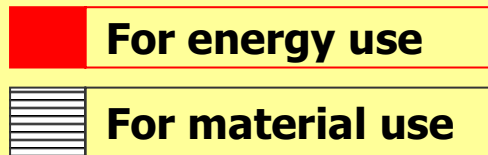
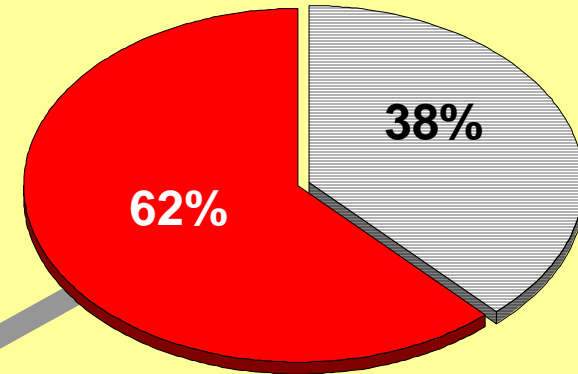
Source: UNECE Joint Wood Energy Enquiry (2007)

Energy use vs. material use -today

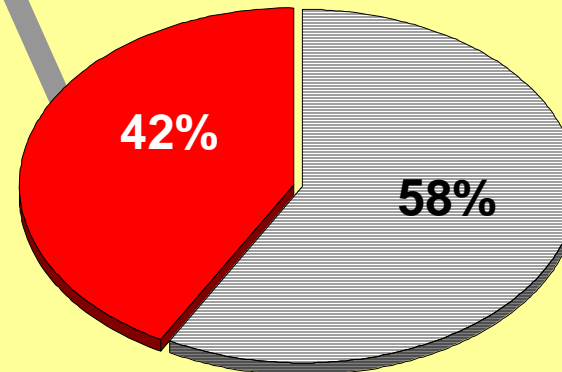
Wood removals 2005
from forest and woody biomass
outside forests



Wood co-products, residues
& recovered wood



Total supply

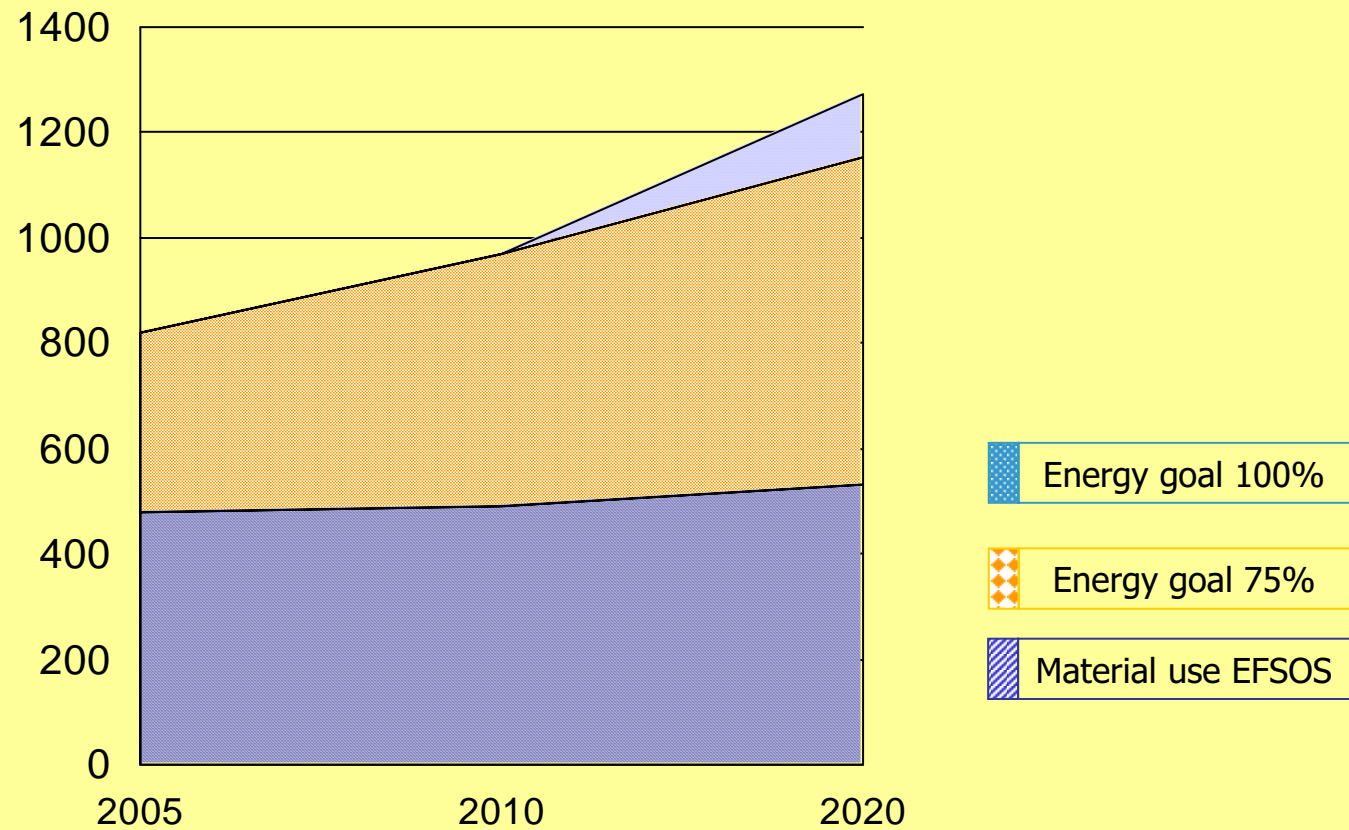


Source: UNECE / Hamburg University (2007)

Energy use vs. material use – tomorrow ???

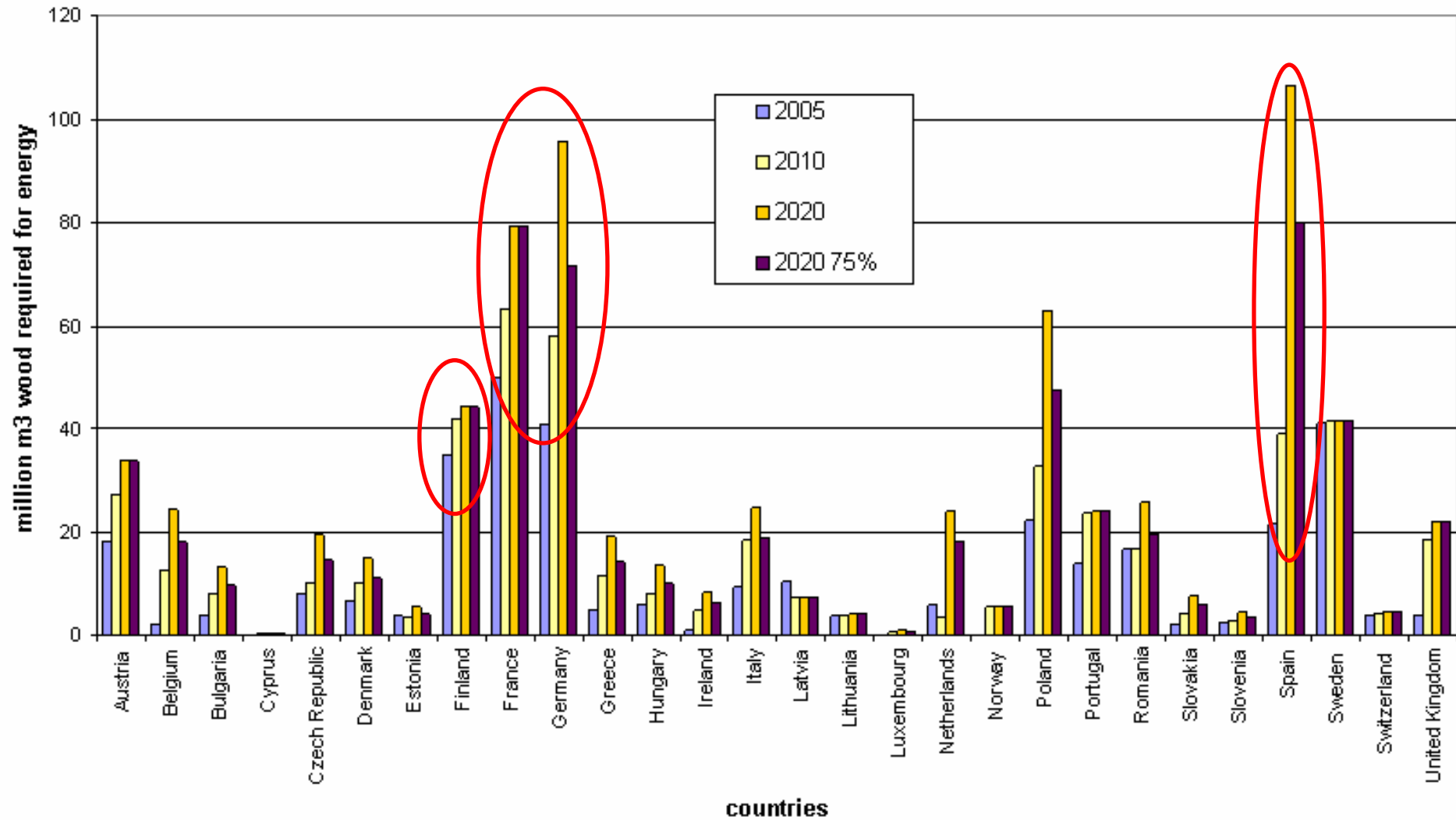


Combined wood use [mio m³] – 2005, 2010, 2020



Source: UNECE / Hamburg University (2007)

Projecting future energy use of wood fibres



Source: UNECE / Hamburg University (2007)

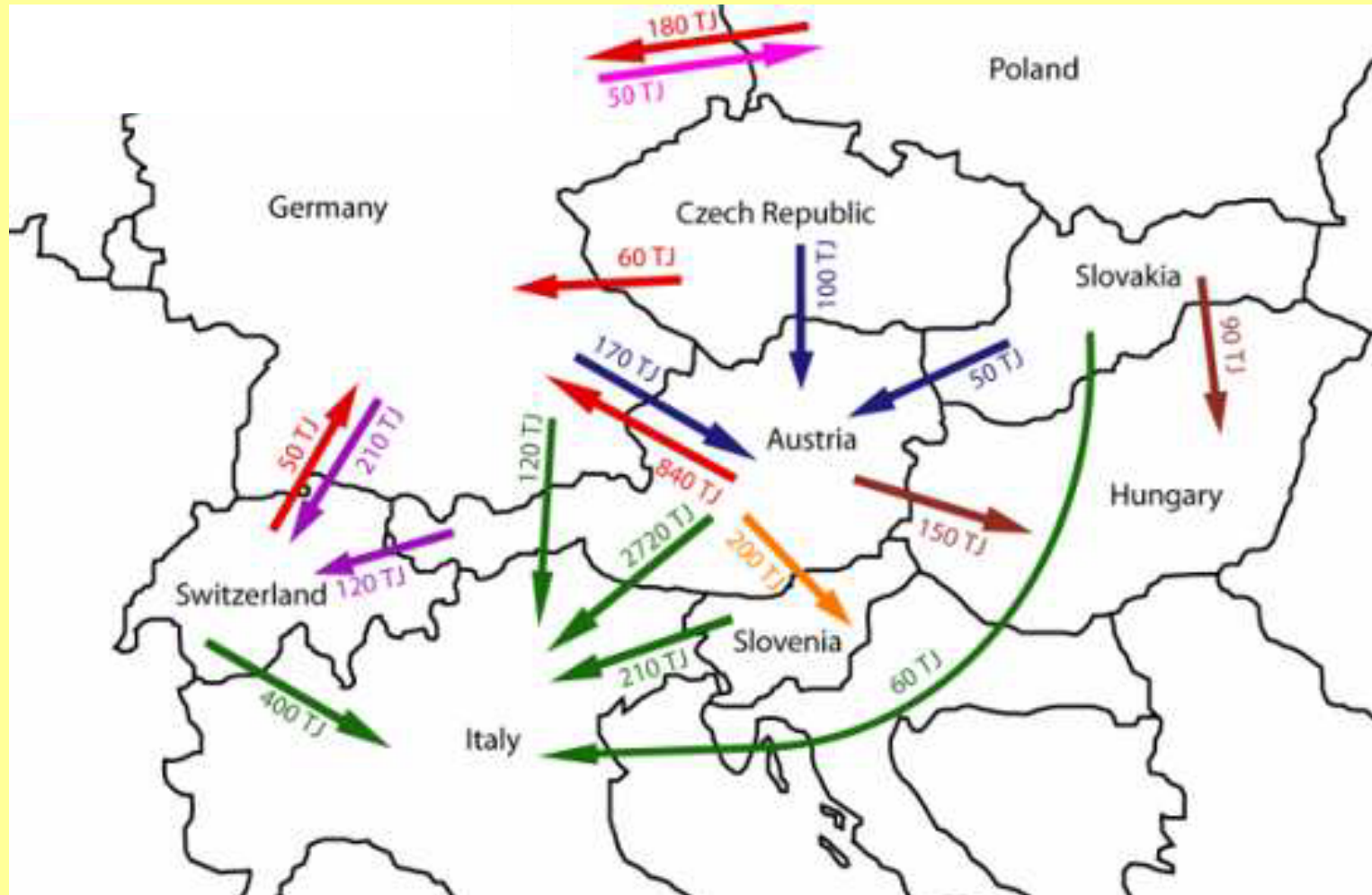
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Source: Bioenergy International (No. 4 2007)

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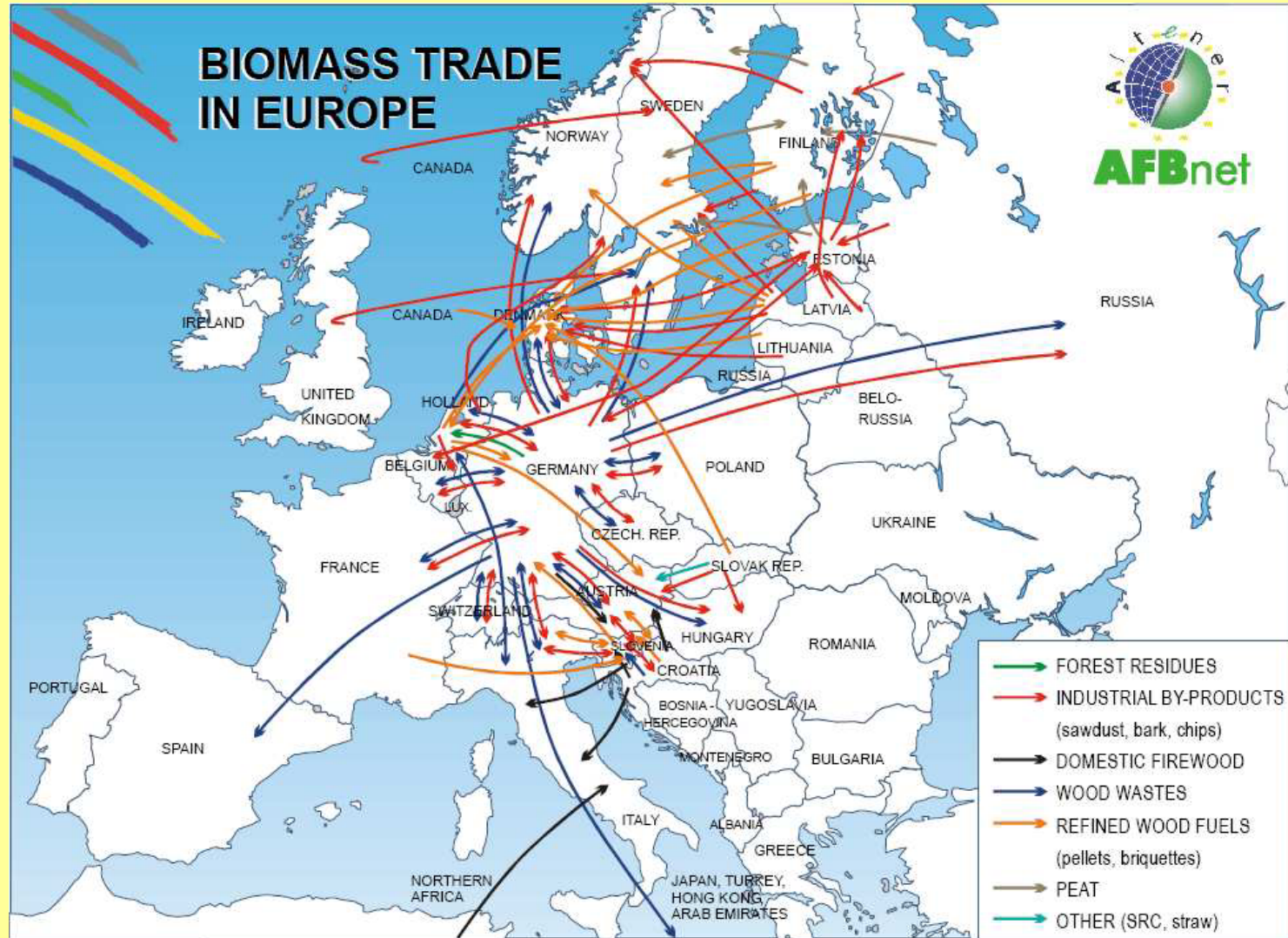
Cross border trade of pellets in the Central European Countries (2005)



Source: Eurostat, MPO, CZSO, EEG)(taken from IEA Bioenergy Task 40: "Global Wood Pellets Markets and Industry: Policy Drivers, Market Status and Raw Material Potential" (Nov. 2007)

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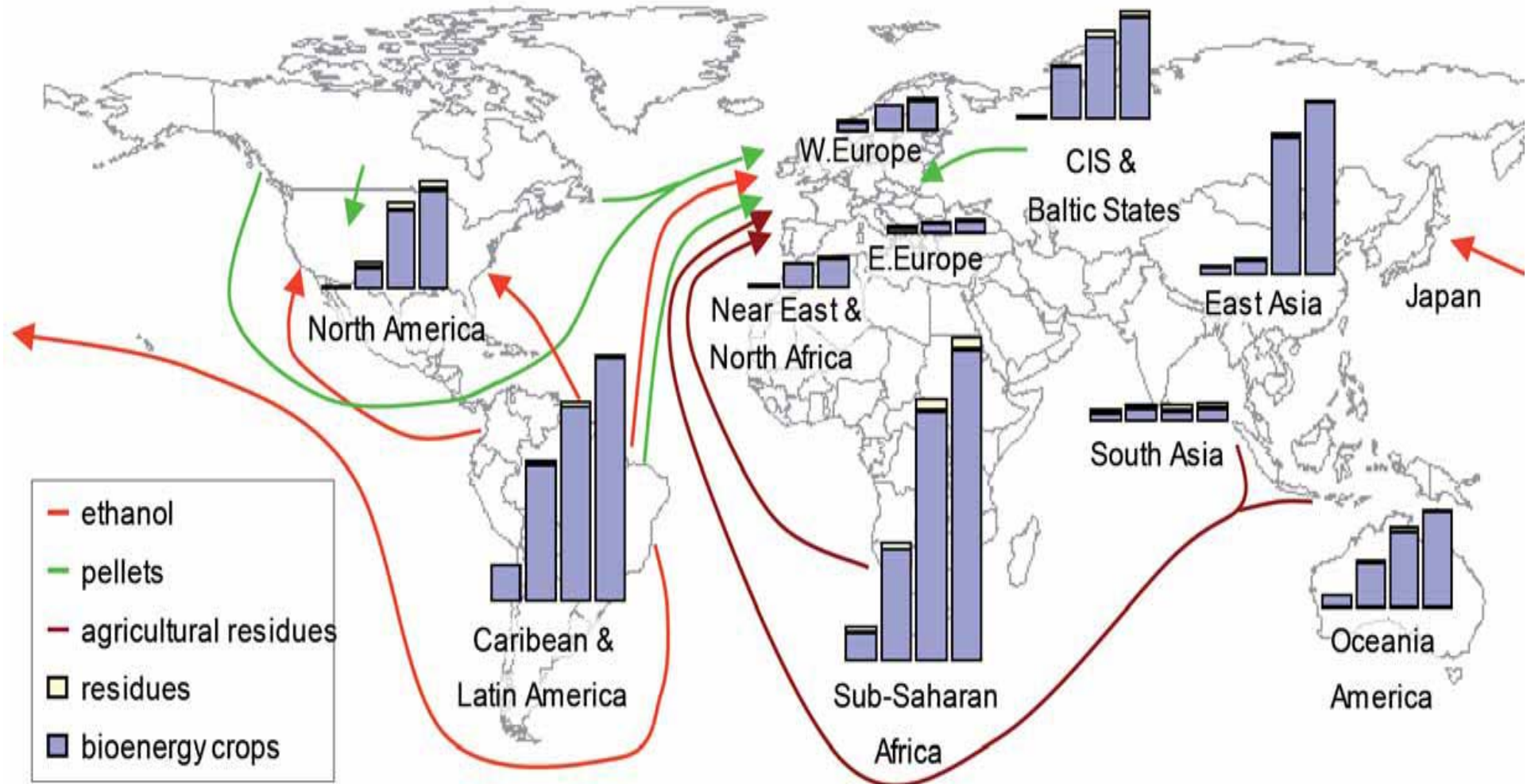
Biomass Trade



Source: Import and export of solid biofuels in Europe, 1999. Alakangas et al., 2002.

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International Bioenergy Trade



Source: Smeets et al, 2004

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Conclusions:

- ✓ Wood energy N° 1 renewable energy source in EU
- ✓ Energy use of wood fibres will increase in future
- ✓ EU energy policies might increase wood fibres import
- ✓ Highest market potentials for wood pellets and briquetts
- ✓ Global trade of processed wood fuel trade will increase
- ✓ Urgent need for improved data quality on wood energy



International wood energy trade:



Domestic or imported?

Major wood fuel importer

Major wood fuel exporter



Markets



Task 39 / 40

Optimized energy density per volume



Pellets / chips



Thank you for your attention !

Contact:

Florian Steierer

Hamburg University
Economics of Forest Products
Department of Wood Science

steierer@holz.uni-hamburg.de

