



Development of meaningful statistics for sustainable  
bioenergy trade.



UNECE / FAO Timber Section  
- In cooperation with Hamburg University -



**Improved information on wood energy**  
**Production and trade**



# Objectives:

In-depth assessment of wood energy

Improved cross-sectoral cooperation between energy and forestry

“Translate” policy goals from energy to forestry sector

Converge information between energy and forestry statistics

# Outline:

## Recent work:

2006: 1st Joint Wood Energy Enquiry

2007: Wood resources availability and demands - Implications of renewable energy policies in the EU/EFTA region

## The way forward:

2008: 2nd Joint Wood Energy Enquiry

2008/2009: Empirical research on wood supply & use

Changes to production and trade classifications ???

**2006**

# 1st Joint Wood Energy Enquiry – JWEE

(UNECE / FAO / EC / IEA)

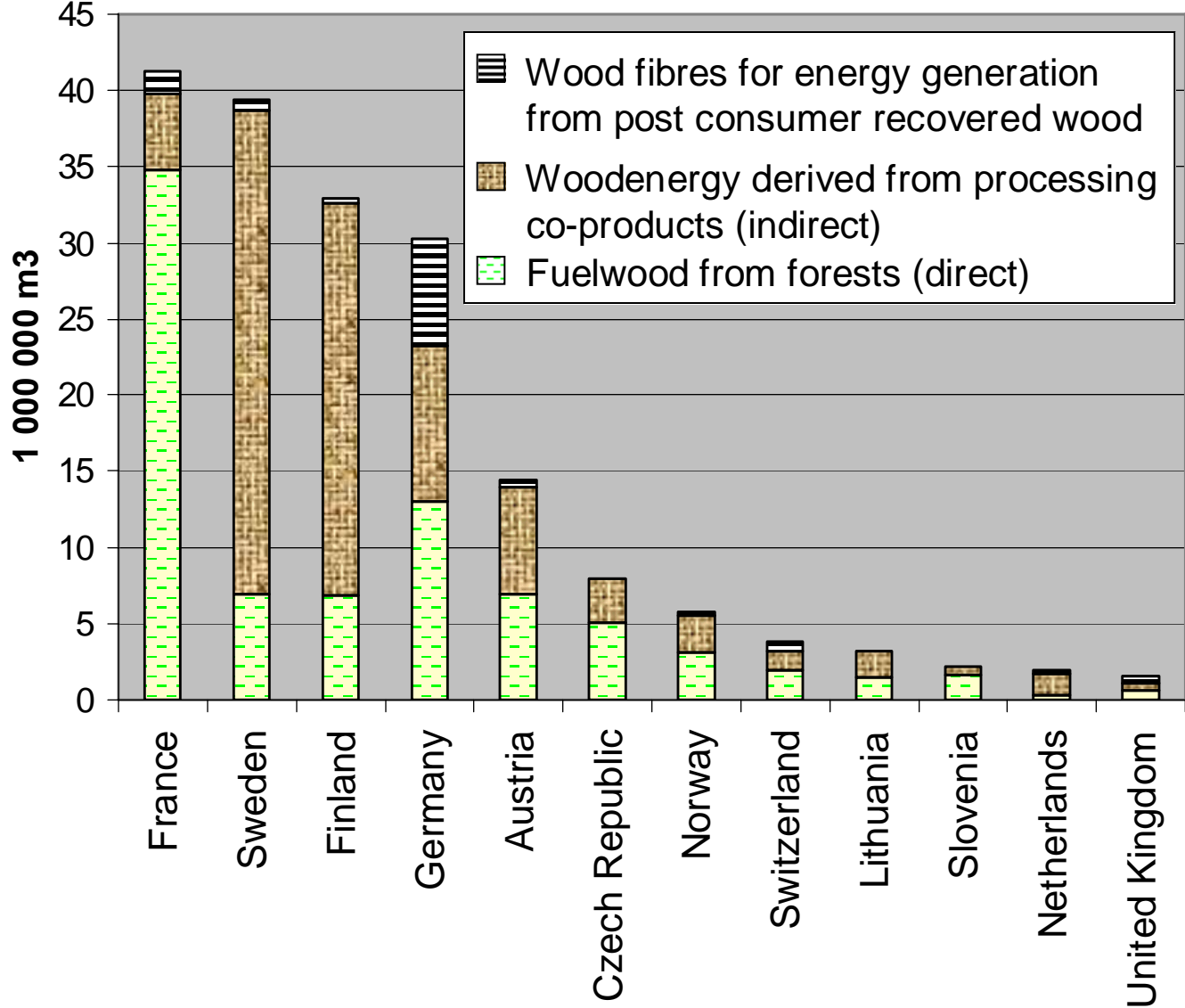
- Cooperation between energy and forestry statistics
- Beyond trade statistics' definitions (e.g. pellets / recov. wood)
- Responses from 14 countries cover most important markets in Europe (e.g. 63 % removals) and North America.

## Results:

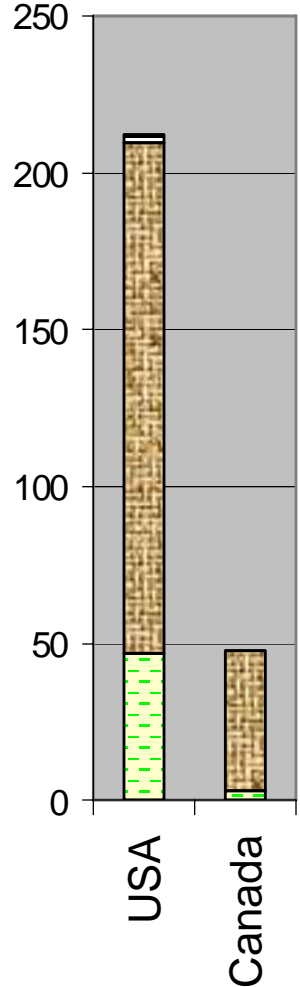
- Detailed information on sources and user of wood energy
- Wood energy is important for forest and energy sector (representing 80% energy from solid biomass)
- Fuelwood removals from forests are already significantly higher (up to 10x more) - impact on future potentials !!!

# JWEE Results – Sources wood energy

## Europe

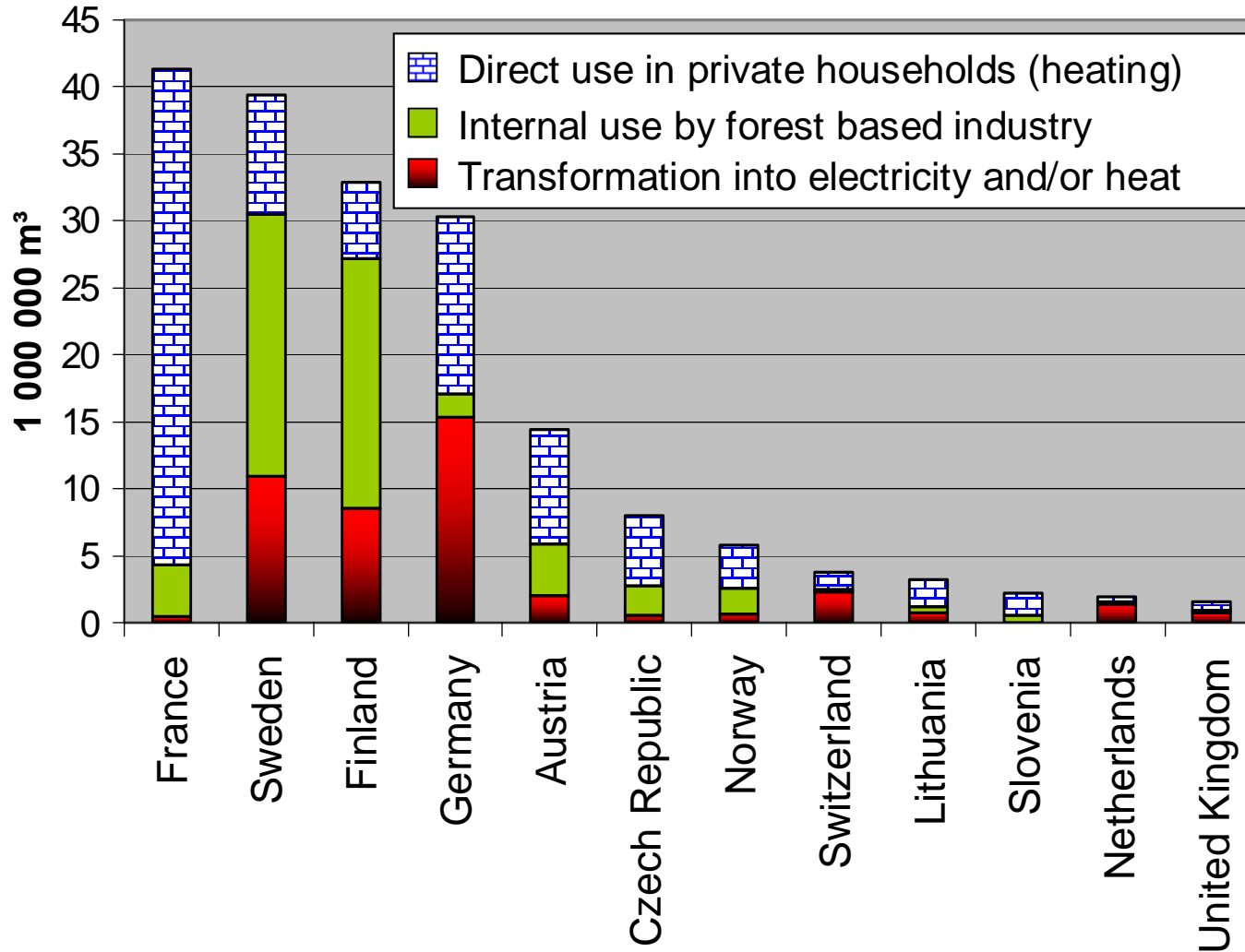


## North America

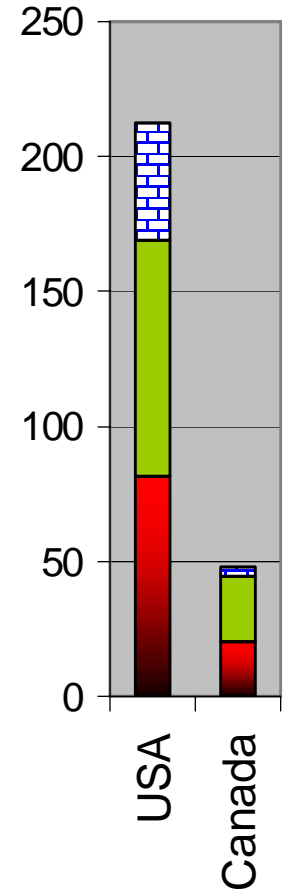


# JWEE Results – User wood energy

## Europe



## North America



**2007**

# Wood resources availability and demands - Implications of renewable energy policies in the EU/EFTA region (UNECE/FAO/EC/Hamburg University)

## I: Wood Resource Balance (2005):

- Wood supply (including net trade)
- Use and re-use of wood fibers
- Material & energy use in EU/EFTA

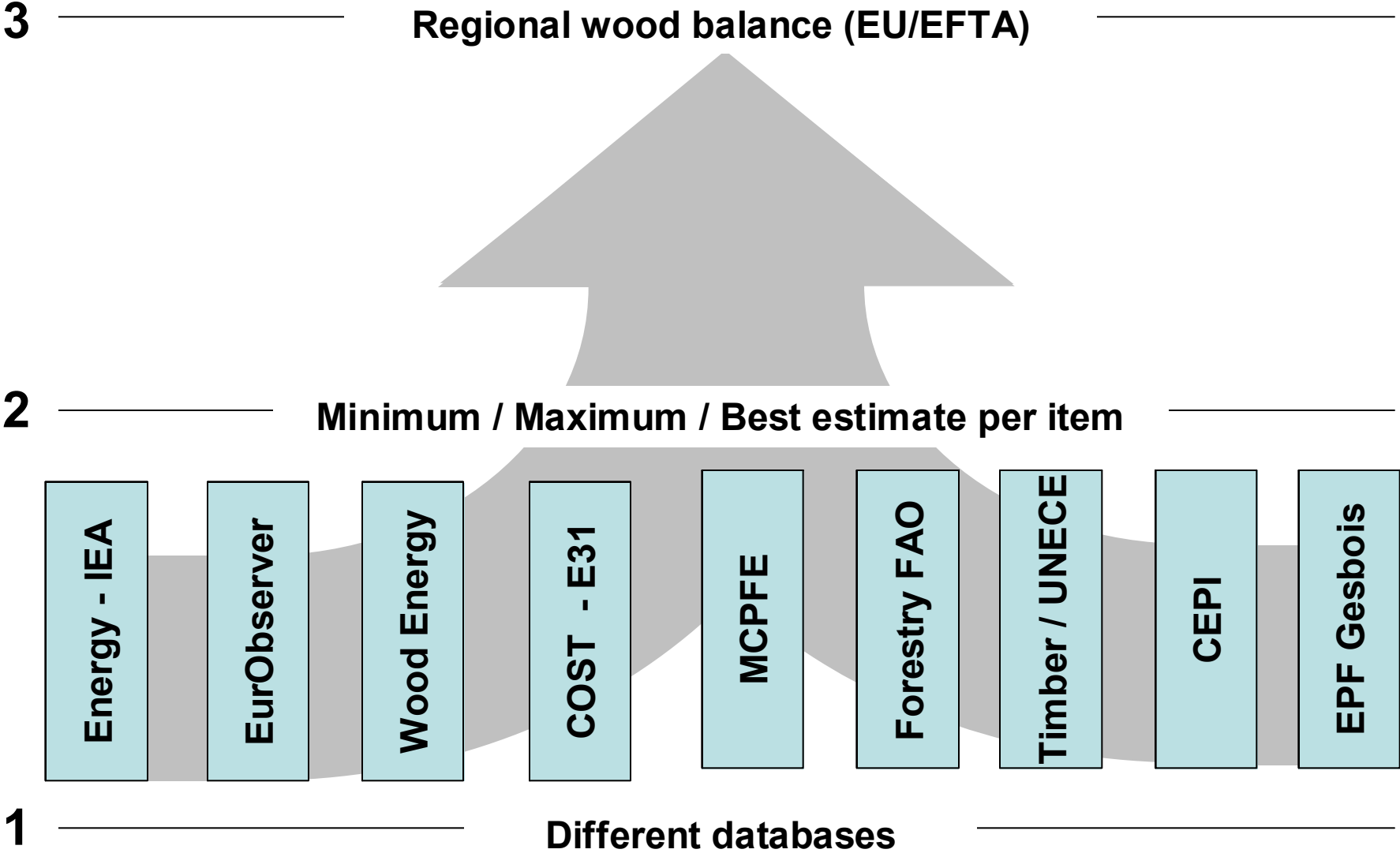
## II: Impact assessment of energy

- Quantitative assessment of “20 / 20 by 2020” goals
- Calculated wood volumes to satisfy future material & energy demand

## III: Regional wood potential assessment

➔ Results are part of an ongoing process !

# Wood Resource Balance 2005 (EU/EFTA)



# Wood Resource Balance 2005 (EU/EFTA)

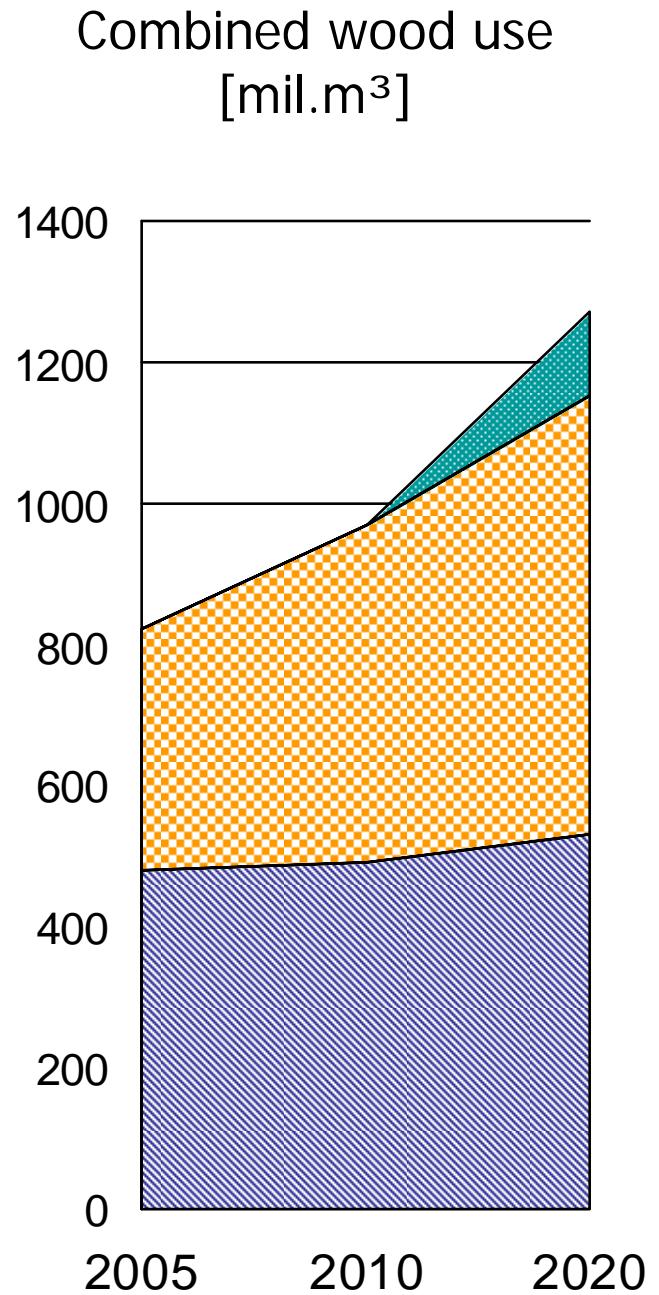
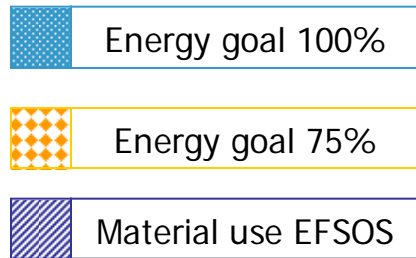
million m <sup>3</sup>	%	%	million m <sup>3</sup>
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Supply from forest & woody biomass outside the forest:

Supply from forest & woody biomass outside the forest:				Material use:			
Industrial Roundwood - JFSQ	(P+I-X)	379	48%				
Industrial Roundwood - unreported to trade statistics	(P)	18	2%	26%	217	(C)	Sawmill industry
Fuelwood - JFSQ	(P+I-X)	90	11%	11%	88	(C)	Panel industry
Industrial Roundwood - unreported to trade statistics	(P)	4.9	1%	19%	155	(C)	Pulp industry
Bark	(P)	29	4%	1%	6.7	(C)	Processed wood fuel industry
Used logging residues	(P)	17	2%	2%	14	(C)	Other physical utilization
Woody biomass outside the forest	(P)	20	3%				
Supply by-products:							
Chips, particles & wood residues	(P+I-X)	118	15%				
Pulp production co-products (black liquor, tall oil, etc.)	(P)	70	9%				Energy use:
				6%	48	(C)	Power and heat
Supply recovered wood:							
Recovered wood for material & energy use	(P)	39	5%	7%	61	(C)	Industrial internal
Supply processed wood fuel:							
Processed wood fuel	(P+I-X)	6.9	1%	10%	87	(C)	Private households
				18%	152	(C)	Undifferentiated energy use

$\Sigma$ SUPPLY TOTAL	793	<u>Difference</u>	828	$\Sigma$ USE
		35		

# Future wood use



# Challenges:

Lacking / weak information despite clear definition of commodities in production and trade statistics

- Fuelwood consumption by private households
- Industry internal use of co-products
- Use treated (hazardous) wood waste
- Intraeuropean trade

Short term solution: → Empirical research ?

# Challenges:

Bulky / fuzzy definition in production (CPA) and trade (HS/CN/SITC /etc.) classifications - particularly important in fast evolving markets with significant scope for international trade (tons & €):

- Wood pellets (households vs. industrial use)
- Wood briquettes
- Treated and untreated post consumer recovered wood
- Second generation Biofuels  
(- Bark)

Long term solution: → Adopt improved and detailed classifications ?  
→ Empirical research ?  
→ Combination ?

**2008**

# The way forward (short term) – empiric research

Phase	Type of activity	Description / Title	Date	Status
I	Enquiry	1st Joint Wood Energy Enquiry (JWEE): Improving data on wood energy:	2005 - 2007	done
II	Workshop	Mobilising wood resources (Workshop in Geneva)	January 2007	done
III	Study	Wood resources availability and demands: Overview based on existing data	Mar - Oct 2007	done
	UNECE/FAO Policy Forum	Bioenergy Policies and Forests	10 Oct 2007	
IV	<b>Review / workshop</b>	<b>Review of the data and information presented in the study (phase III) by national correspondents Workshop in spring (March) 2008</b>	<b>Nov 07- Apr 08</b>	<b>ongoing</b>
V	Study	Empirical study on national level in several European countries to gather new and improve existing data on energy use of wood and sources of wood	2008 - 2010	proposed
VI	Study / Process	Incorporating wood supply and demand into sector outlook study	2008 - 2009	proposed

# The way forward (long term) – classifications

Empiric research is valuable tool to assess the current situation

**BUT**

**Provides a snapshot – *only* !!!**

Improved definitions in production and trade classifications

- are based upon agreed, objective criteria
- provide periodical information
- enable trend assessment (past and future)
- provide valuable information for decision makers

# Thank you for your attention !



## Any questions ?

### Contact:



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