

Overview of UNECE activities on wood energy

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EU4Energy Vienna Policy Forum: Bioenergy

24 April 2018, Vienna, Austria

Energy Community Secretariat headquarters





- Who are we?
- Why do we work on wood energy?
- What do we do?
 - Data collection
 - Capacity building
 - Assessment
 - Education
- Where do we go?



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Economic Commission for Europe

- ... Established in 1947, first regional commission of the United Nations
- ... is a multilateral platform which facilitates greater economic integration and cooperation among its fifty-six member States
- ... promotes sustainable development and economic prosperity



Forestry and Timber Section

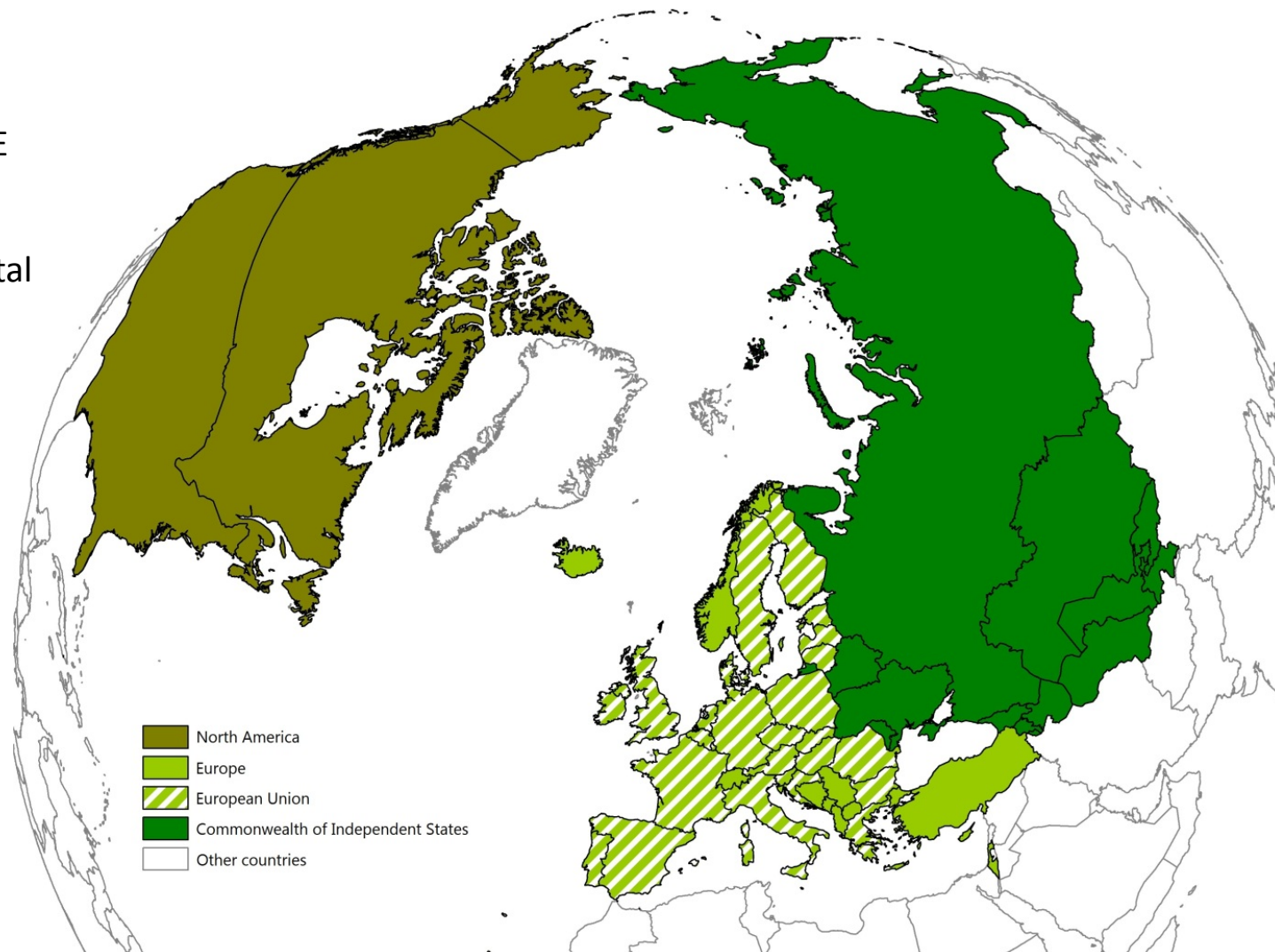
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Regional Scope

The forest in the UNECE region covers:

- 41 % of the global total
- 85% certified area
- 60% industrial roundwood



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Food and Agriculture Organization
of the United Nations



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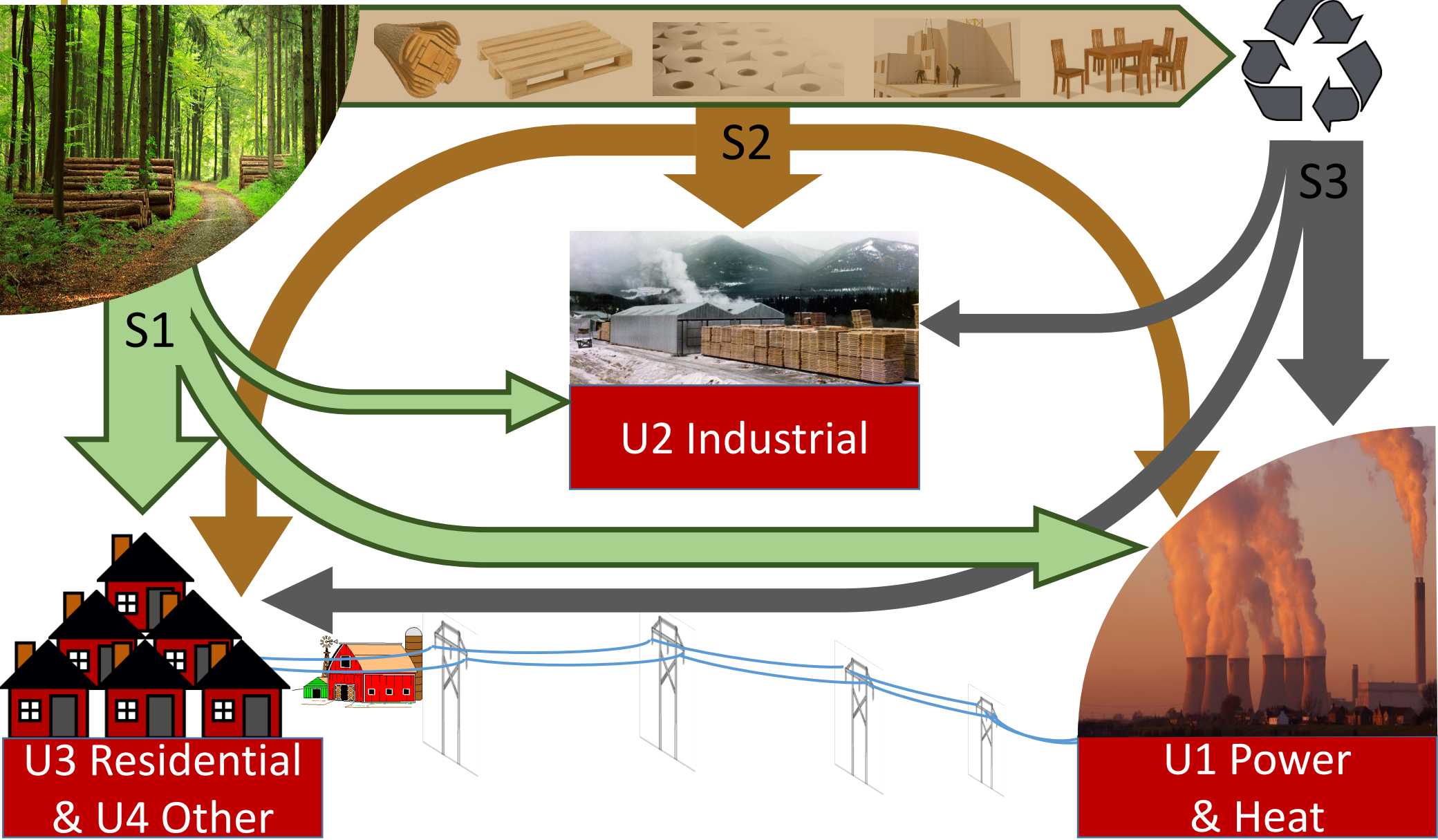
We collect wood energy data, because...

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- ...wood energy is the most important single source of renewable energy in the world – and in the UNECE;
- ...wood fuels are important for the forest based sector;
- ...no reliable data available in harmonized form;
- ...more details required than total consumption only.

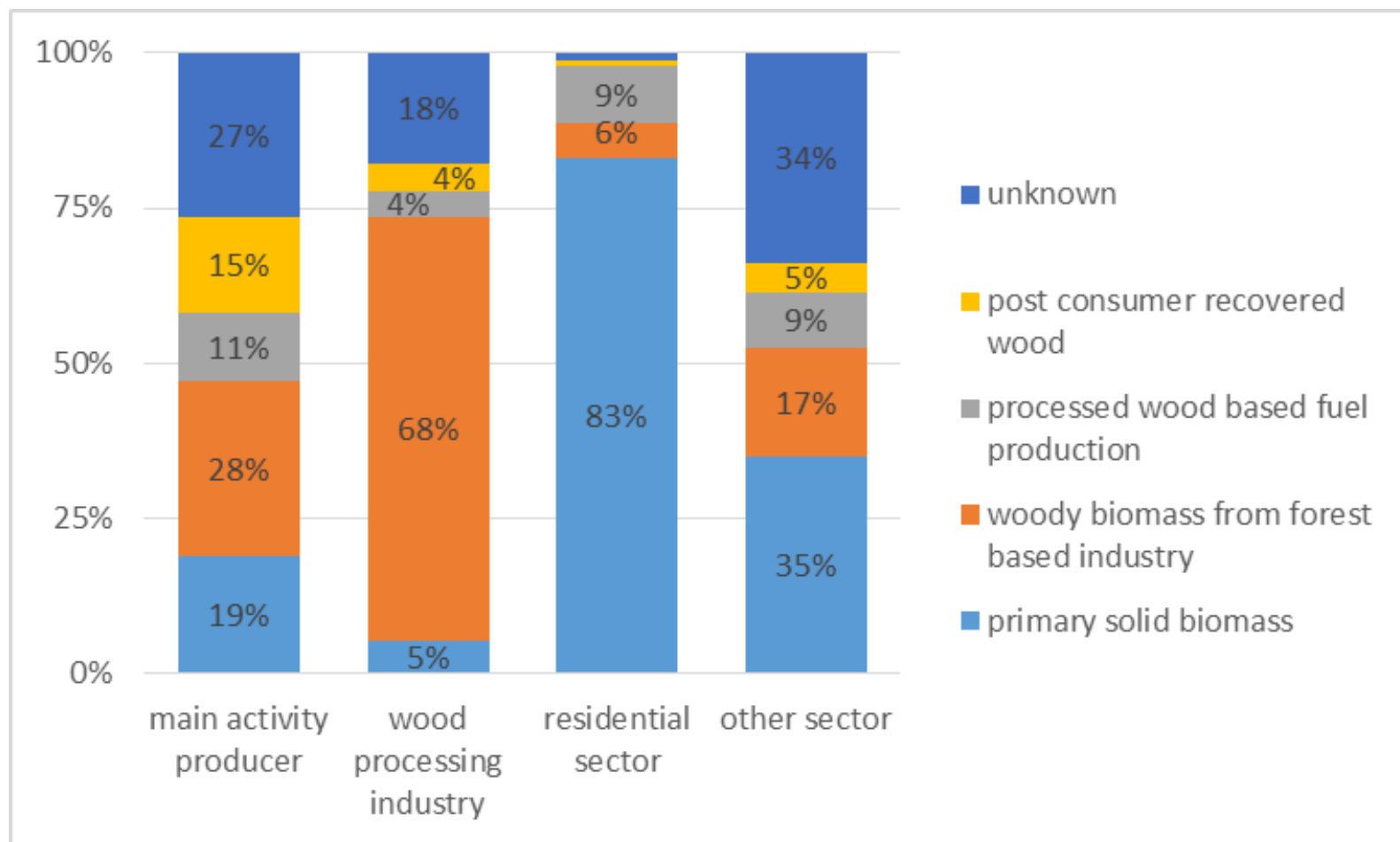
Sources and User of wood for energy

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JWEE 2015: wood portfolio





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Table IV – main structure

Fully complementary and compatible with the energy questionnaires (IEA/Eurostat)

Fully compatible with the energy questionnaires (IEA/Eurostat)

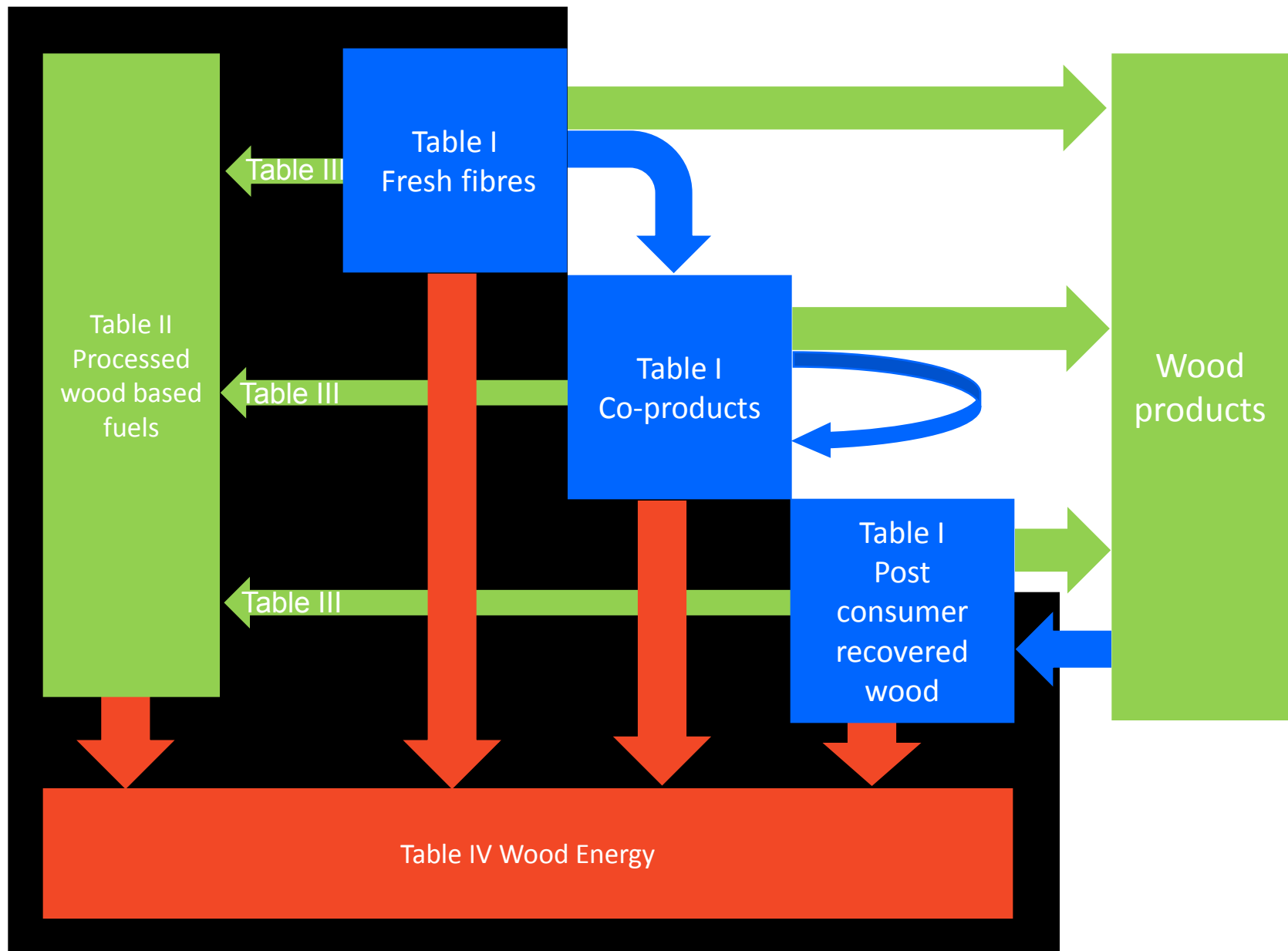
		USES							
SOURCES		U1 Power & heat	DQ	U2 Industrial	DQ	U3 Residential	DQ	U4 Other	DQ
	S1 Direct								
	S2 Indirect								
	S3 Recovered								
	S4 Unspecified								

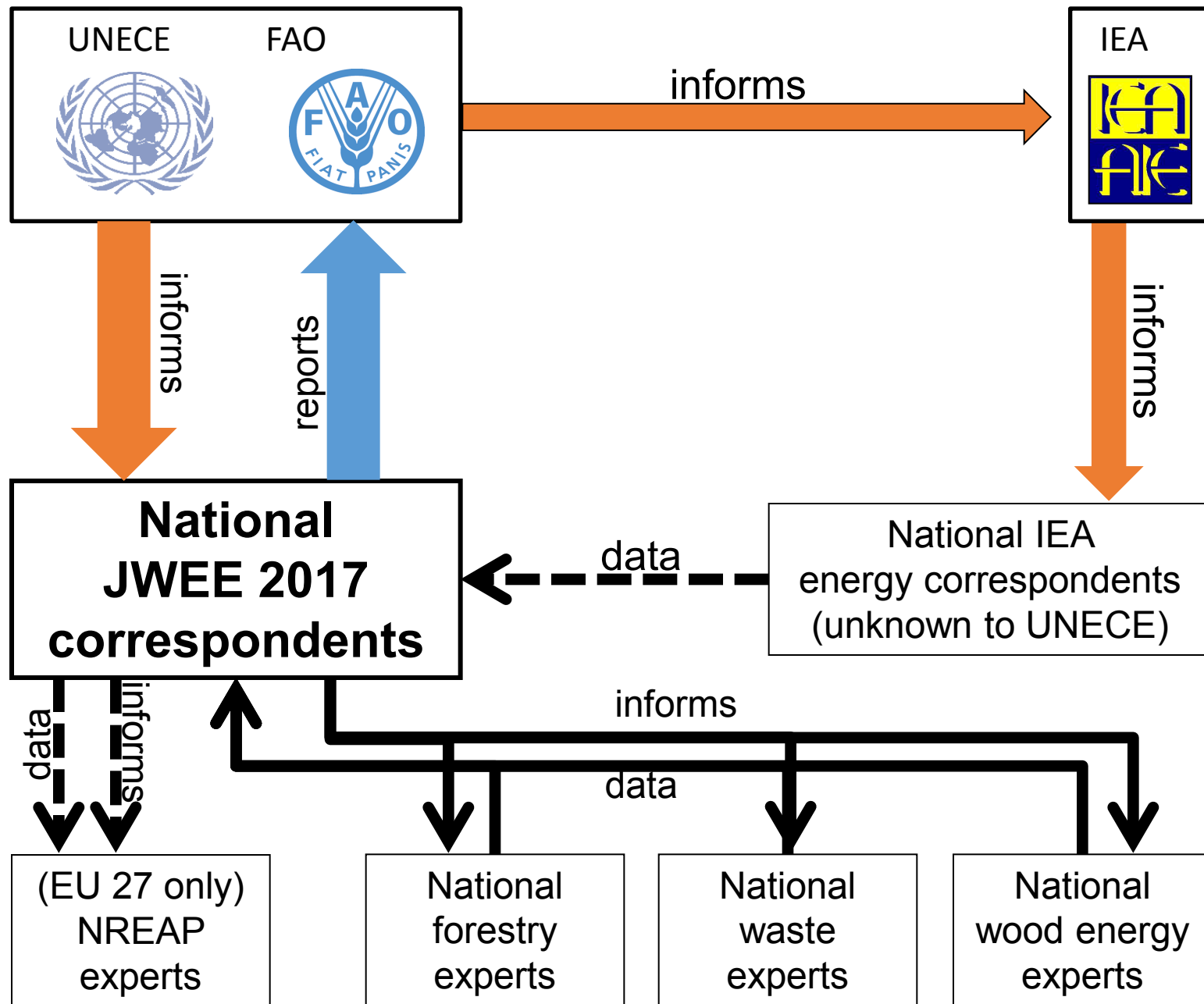
Joint Wood Energy Enquiry

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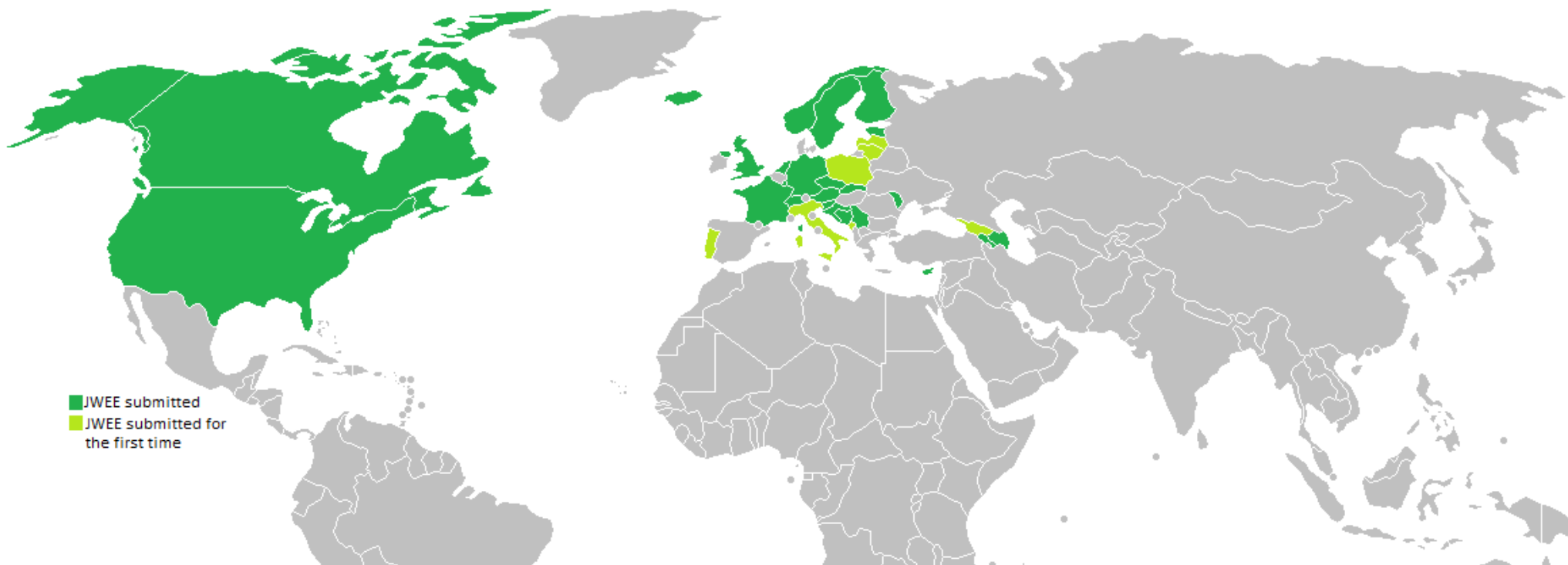
- Table I:** Availability of the raw material (P+I-E)
- Table II:** Production of processed wood based fuels (P+I-E)
- Table III:** raw material used for wood based fuels production
- Table IV:** consumption of wood for energy by sectors and source







Coverage of the JWEE 2015



31 member states reported wood energy consumption in table IV

EU4Energy coverage 2005-2015

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Country	2005	2007	2009	2011	2013	2015
Armenia	NC	NC	-	B	A	A
Azerbaijan	NC	-	-	-	A	A
Belarus	-	-	I	-	-	-
Georgia	-	-	-	-	-	A
Kazakhstan	NC	NC	-	-	-	B
Kyrgyzstan	NC	-	-	-	-	-
Moldova	-	-	-	-	A	A
Tajikistan	-	-	-	-	-	-
Turkmenistan	-	-	-	-	-	-
Ukraine	NC	-	-	A	-	-
Uzbekistan	-	-	-	-	-	-

A: good dataset. Table IV filled

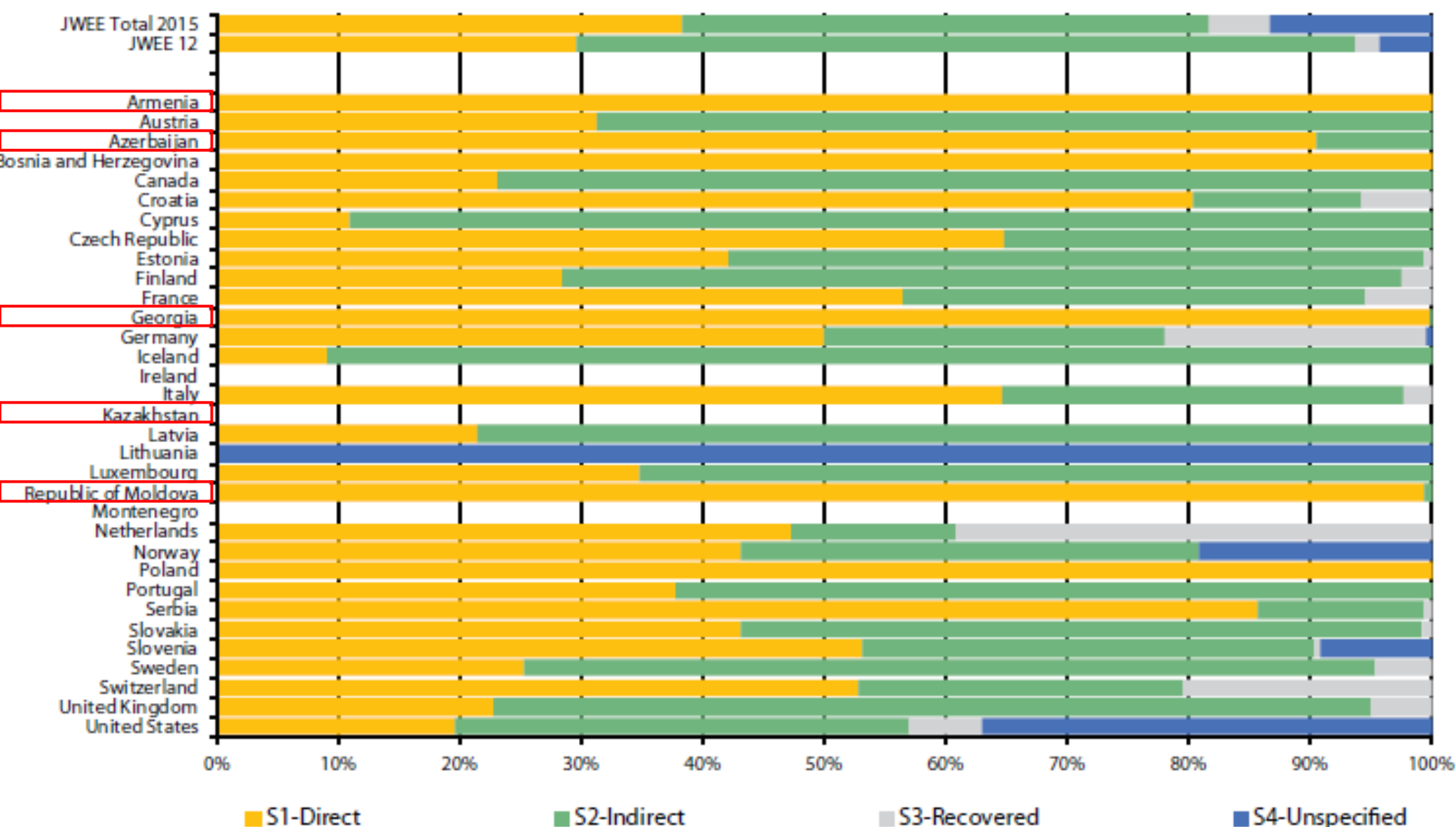
I: insufficient data

B: partial dataset. Table IV not filled

NC: no capacity

-: no response

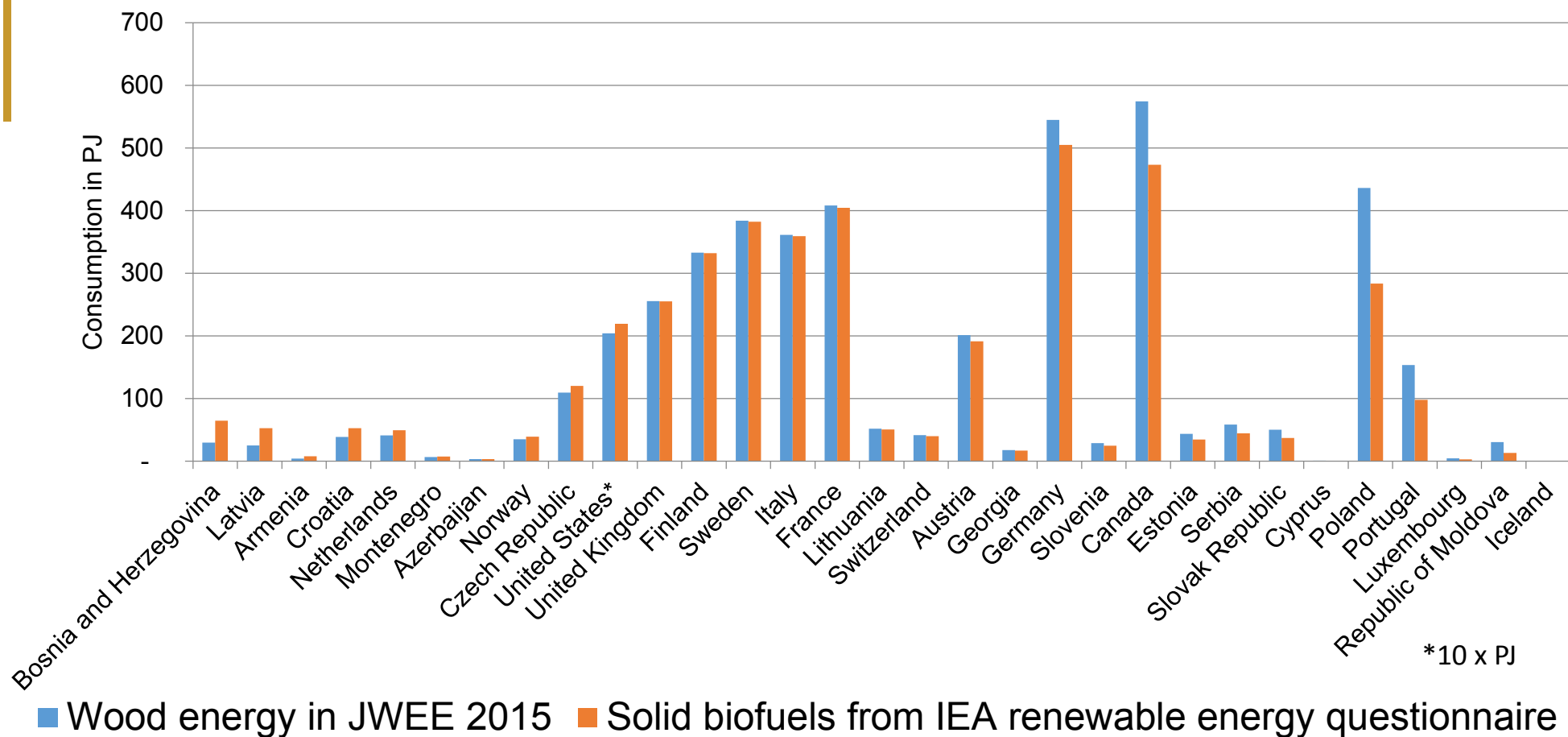
Relative share of wood energy sources, 2015



Note: JWE 12: Austria, Cyprus, Finland, France, Germany, Ireland, Luxembourg, Serbia, Slovenia, Sweden, Switzerland and United Kingdom.



Statistical differences





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Joint Wood Energy Enquiry

Introduction

The UNECE/FAO Forestry and Timber Section, with the encouragement of the Joint ECE/FAO Working Party on Forest Statistics, and in collaboration with the International Energy Agency (IEA), the Food and Agriculture Organization (FAO) and the European Commission (EC) decided in June 2006 to develop and launch a "Joint Wood Energy Enquiry".

Wood energy data are often scattered or lost within renewable energy statistics, making it difficult to assess and evaluate the real role of wood as a renewable source of energy.

The Enquiry aims at improving knowledge and understanding of wood energy consumption and tries to shed light on the potential and future perspective of wood energy in the region.

It collects data of both sources and uses of wood and promotes cooperation between the energy and forest sectors, providing a comprehensive framework on the role of wood energy in Member States.



2015 Joint Wood Energy Enquiry

Questionnaire [ENG](#) [RUS](#)

A manual is available [here](#)

2013 Joint Wood Energy Enquiry

According to the [results of the enquiry](#) (40MB):

Situation in 2013

Overall wood energy accounts for 3.5% of the total primary energy supply (+0.2 compared to 2011) and 38.2% of the renewable energy supply (-0.2) in 26 UNECE region countries in 2013, continuing its role as the leading source of renewable energy. Around 47% of all mobilized woody biomass supply (+7.0) is used for energy purposes. (26 countries: Armenia, Austria, Azerbaijan, Bosnia and Herzegovina, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Republic of Moldova, Serbia, Slovenia, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, the United Kingdom and the United States)

Main trends 2007-2013

JWEE Country Profiles

JWEE 12

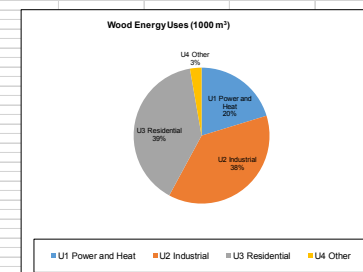
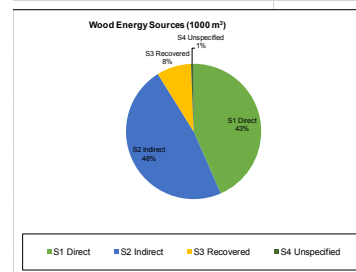
2013

* Year selection only affects the "Wood Energy Sources and Uses"

Total Population	257 409 201				
Basic Population (% of total)	25.4%				
Woody Biomass Supply	2015	2013	2011	2009	2007
Roundedwood removals from forest and outside forest (1000m3)	203 804	201 123	206 496	211 660	193 979
Roundedwood supply from forest and outside forest excluding net trade (1000m3)	212 087	211 094	212 019	207 208	244 998
Net calculated domestic supply of woody biomass (1000m3)	546 488	550 460	576 307	478 813	456 340
Energy Resources	2015	2013	2011	2009	2007
Total primary energy supply, TPES (Akw)	910 044	944 887	928 040	940 279	957 326
Share of renewables (RES) in TPES	13.0%	12.2%	10.8%	9.9%	9.7%
Total wood energy supply, volume basis (1000 m3)	203 804	201 123	206 496	211 660	193 979
Wood energy supply, energy basis (Akw)	53 081	50 043	50 878	48 007	43 547
Wood Energy Intensity	2015	2013	2011	2009	2007
Energy wood energy consumption (m3/capita)	0.07	0.06	0.07	0.06	0.06
Per capita consumption per residential (m3/capita)	1.07	1.09	1.13	1.03	1.03
Per capita consumption per industrial (m3/capita)	48.94	38.79	39.21	19.28	19.28
Role of Wood Energy in Forest Sector	2015	2013	2011	2009	2007
Share of net annual increment directly used for energy (%)	20.4%	21.3%	17.8%	16.3%	12.3%
Share of roundedwood supply directly used for energy purposes (%)	31.3%	30.7%	34.9%	33.6%	24.6%
Share of calculated domestic consumption of woody biomass used for energy purposes (%)	46.0%	46.0%	44.0%	43.7%	38.0%
Role of Wood Energy in Energy Sector	2015	2013	2011	2009	2007
Share of energy biomass in TPES (%)	1.9%	1.9%	1.4%	1.4%	1.4%
Share of energy biomass in RES (%)	43.0%	40.4%	44.8%	44.8%	50.1%
Share of wood energy generated from black liquor, energy basis (%)	17.3%	17.0%	16.7%	17.2%	21.2%
Imported wood fuel as share of wood energy, volume basis (%)	16.2%	2.0%	5.6%	3.6%	2.2%
Analysis 2007-2013 CPIS					
Wood Energy Sources and Uses in 2013 (1000 m3)	U1 Power and Heat	U2 Industrial	U3 Residential	U4 Other	Sum
S1 Direct	20 374.6	10 950.0	16 080.4	2 088.2	111 329.0
S2 Indirect	23 646.1	75 321.3	10 102.0	4 070.4	122 143.2
S3 Recovered	7 641.0	9 036.0	3 375.2	20.7	21 170.3
S4 Unspecified	68.2	18.2	1 100.0	1.0	1 186.4
Sum	51 639.9	95 385.3	100 657.6	7 080.3	254 763.1
%	20.3%	37.5%	39.4%	2.8%	

Notes/Comments:

Disclaimer: Data comparisons between reference years are only indicative, due to changes in national and international statistical methodologies.





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Workshop on Bioenergy from the Forest Sector - Capacity Building for Information

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- 45 participants, 21 countries
- Funded by FAO Forestry Department and IRENA
- Supported by FAO Regional Office Europe and participation from IEA and Energy Community
- Small group work (4)

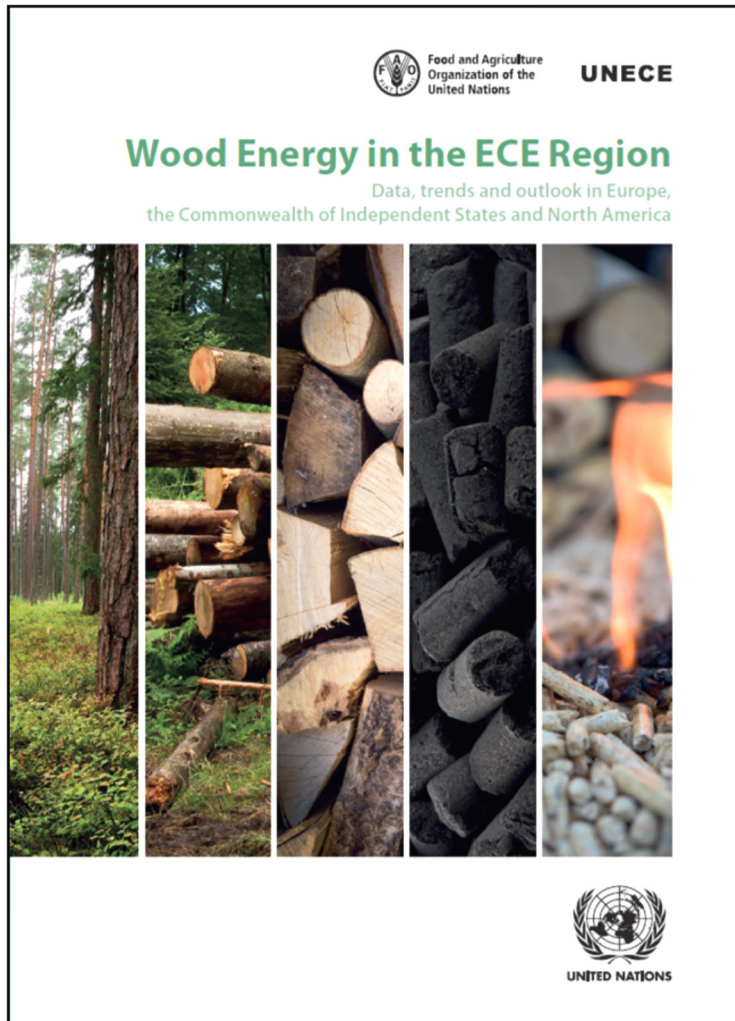
6-8 December 2016, Budapest weblink:
<http://www.unece.org/index.php?id=43908>



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(Market) analysis

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Available in Albanian, English (Russian subtitle), Georgian, Romanian and Turkish.
Serbian is under preparation

Weblink: <https://www.youtube.com/watch?v=9z-EGVeKTrc>

Education

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UNECE - YouTube - You X Thuenen_Report_42.pdf CDB - Meetings BR-KLASSIK: Die ganze Welt +

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A quick introduction to Public-Private Partnership
2K views • 6 years ago

The UNECE Protocol on Strategic Environmental
9.2K views • 2 years ago

Expo 2017: Future Energy, Astana, Kazakhstan
8.1K views • 1 year ago

2017 Global Road Safety Film Festival Third best film
6.3K views • 1 year ago

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4.4K views • 1 year ago



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The way ahead

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- 24 May 2018 Thematic session on residential heating (<http://www.unece.org/index.php?id=45535>)
- Issue JWEE 2017
- Further improve cross-sectoral cooperation
- Work with your countries
- Build more capacities

The Global Framework

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Sustainable Development Goals - SDGs



Thank you!

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Florian STEIERER
UNECE/FAO Forestry and Timber Section

24 April 2018, Vienna, Austria

