



## Item 4b “Promoting sustainable building materials and the implications on the use of wood in buildings”.

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37<sup>th</sup> Joint Working Party on Forest Statistics, Economics and Management  
18-20 March 2015, Geneva, Switzerland





# Outline

- Background
- Purpose of the study
- Method
- Preliminary findings
- Timeline
- Next steps





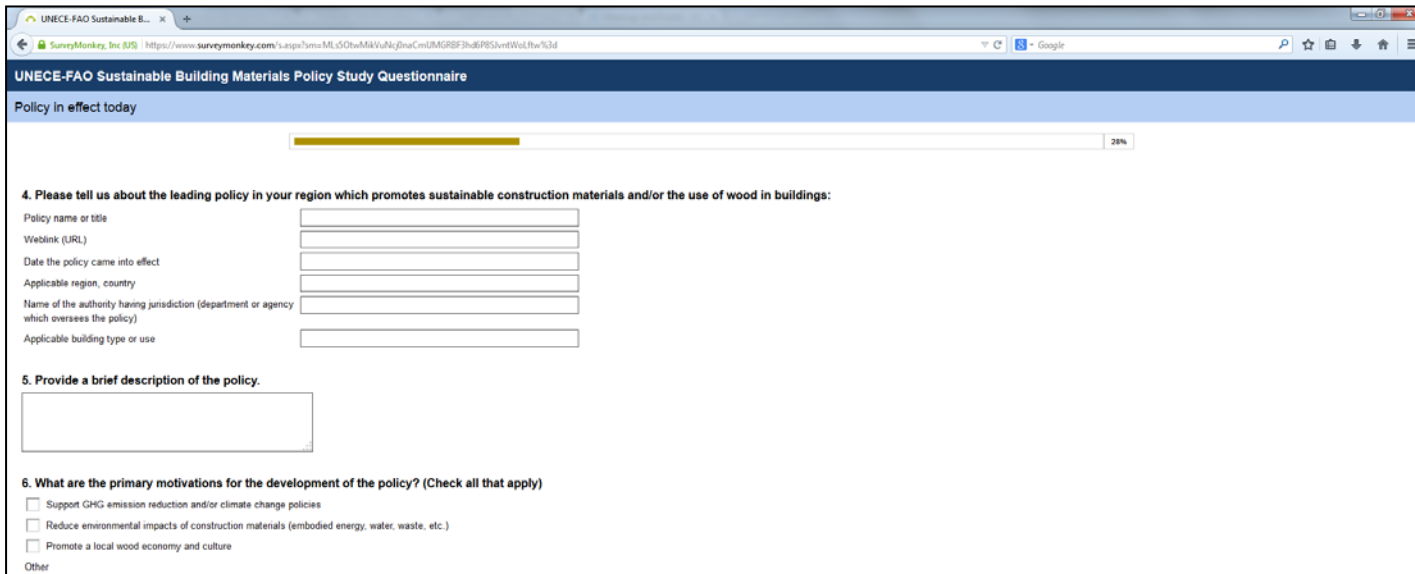
# Purpose of the study

1. Develop a succinct overview of the current policy environment regarding the use of sustainable construction materials and wood in UNECE region
2. Provide commentary on the effectiveness of such regimes in driving the adoption of sustainable construction materials
3. Discuss the contribution of wood products in achieving sustainable building goals
4. Gauge level of activity across leading countries in ECE region
5. No full inventory



# Method

1. Online survey (July – September 2014)
2. Directly sent to 8000 contacts
  - Committee on Housing and Land management
  - Committee on Forests and the Forest Industry
3. 38 questions (multiple choice and open questions)



UNECE-FAO Sustainable Building Materials Policy Study Questionnaire

Policy in effect today

28%

4. Please tell us about the leading policy in your region which promotes sustainable construction materials and/or the use of wood in buildings:

Policy name or title

Webink (URL)

Date the policy came into effect

Applicable region, country

Name of the authority having jurisdiction (department or agency which oversees the policy)

Applicable building type or use

5. Provide a brief description of the policy.

6. What are the primary motivations for the development of the policy? (Check all that apply)

Support GHG emission reduction and/or climate change policies

Reduce environmental impacts of construction materials (embodied energy, water, waste, etc.)

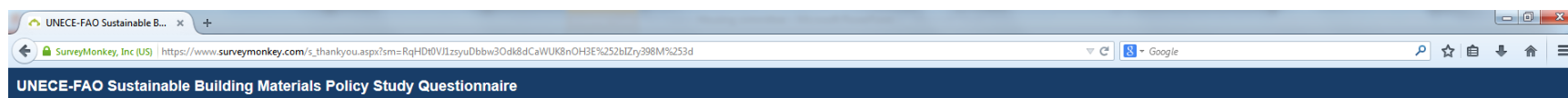
Promote a local wood economy and culture

Other



# Survey results

1. 100 responses from 33 different countries;
2. Initial list of 27 policies and programmes identified through a comprehensive web search
3. Six policies selected for detailed study that highlight leading practices across the materials life cycle



Thanks for completing this survey.

## Survey Results

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What is the state of development of policies which promote the use of sustainable construction and/or wood products in buildings in your region?	
	Response Percent
<b>We have at least one relevant policy in effect today</b>	54.8%
We have a policy in development and we hope that it will be implemented in the next 2 years	17.8%
We are planning to start developing a policy within the next 2 years	6.8%



# Findings

Many countries have programmes and policies in place.

- 42% of survey respondents have at least one policy in effect today
- 15% have a policy in development which they expect to implement in the next two years.





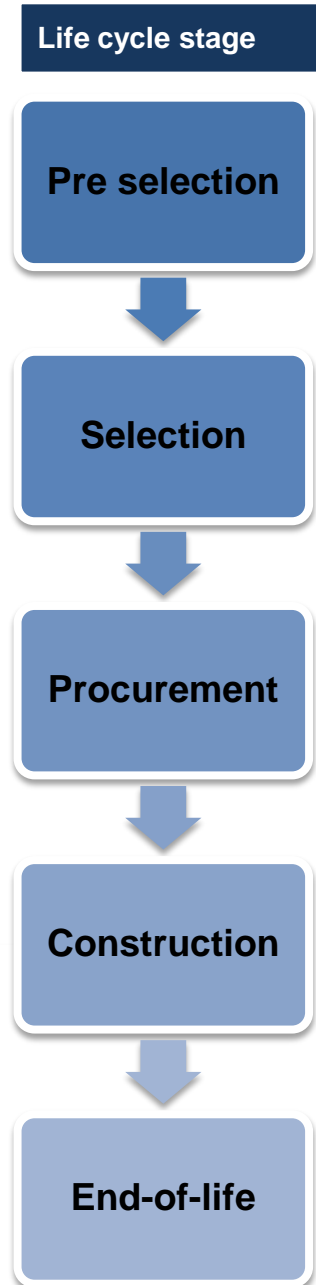
# Findings

The primary motivation for these policies are:

- Support GHG emission reduction and/or climate change policies,
- Reduce environmental impacts of construction materials (embodied energy, water, waste, etc.), and/or
- Promote a local wood economy and culture.



# Findings



Prescriptive approach dominates *policies in place*

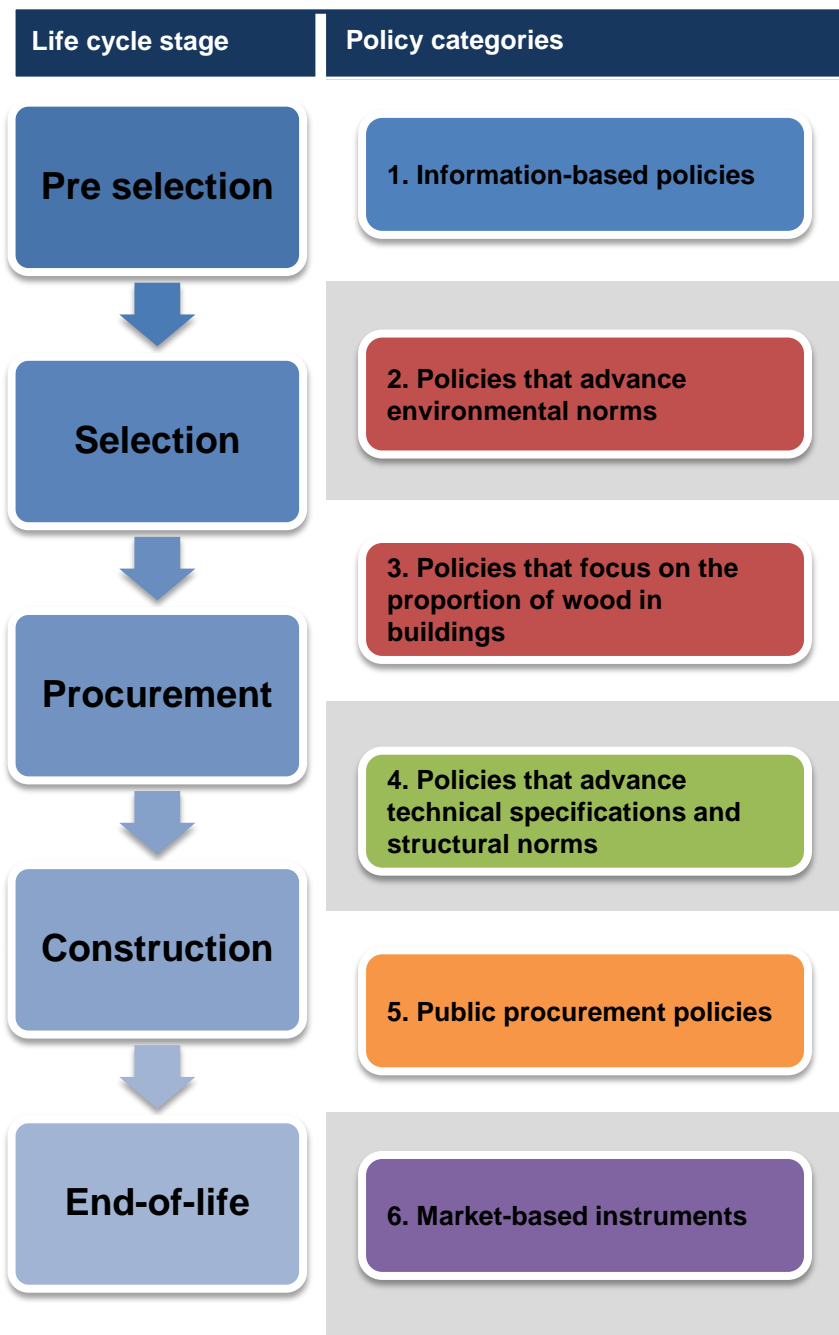
(use certain materials, impose bans on certain materials, stipulate quantities of certain materials types, or favour materials with particular properties)

BUT: there is a shift towards:

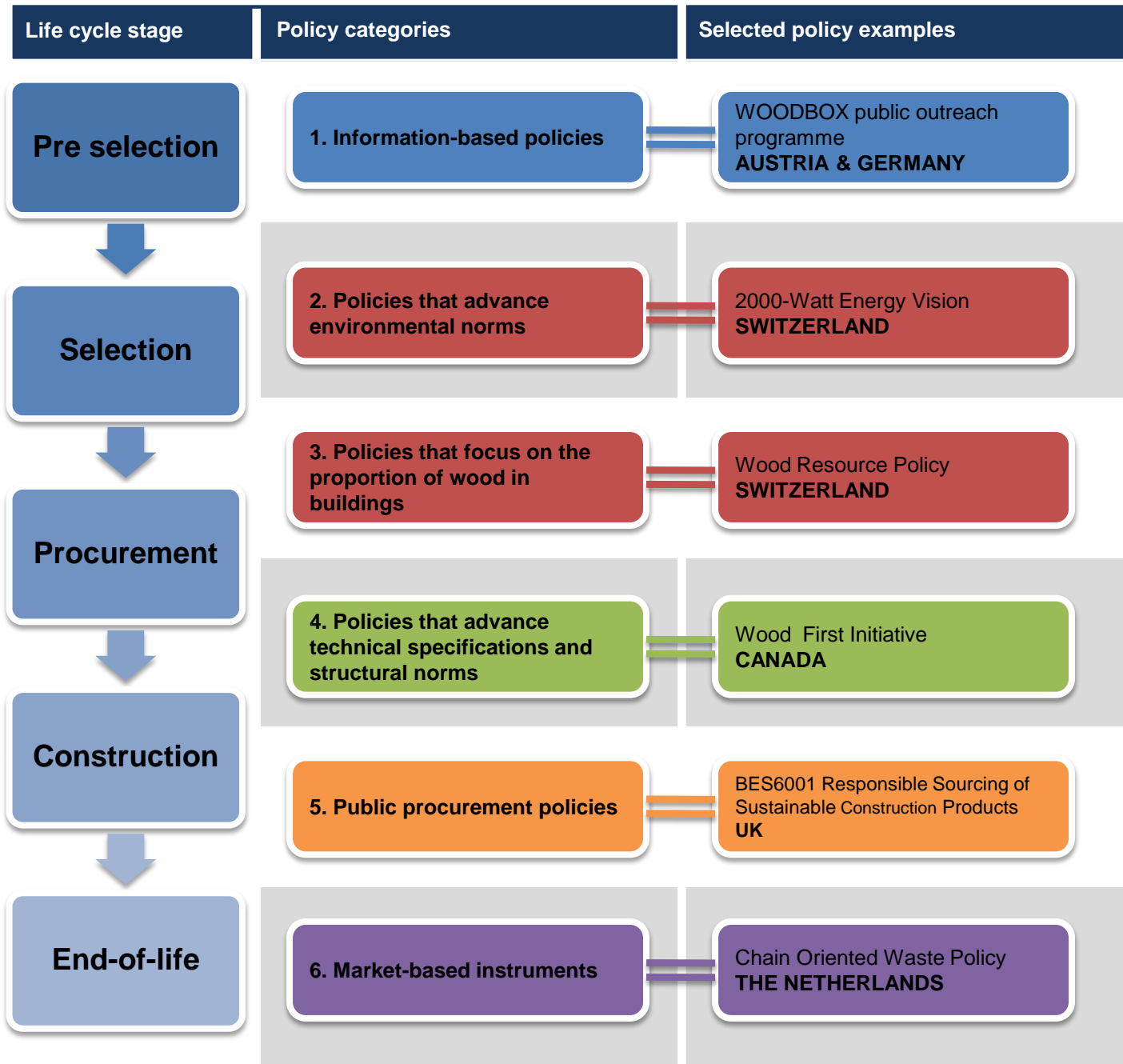
- Integrated, cross-cutting performance based policies that address more than one life cycle stage
- Adoption of life cycle assessment (LCA) as the tool of choice in evaluating the environmental impacts of materials
- Recognition of wood as a low carbon material

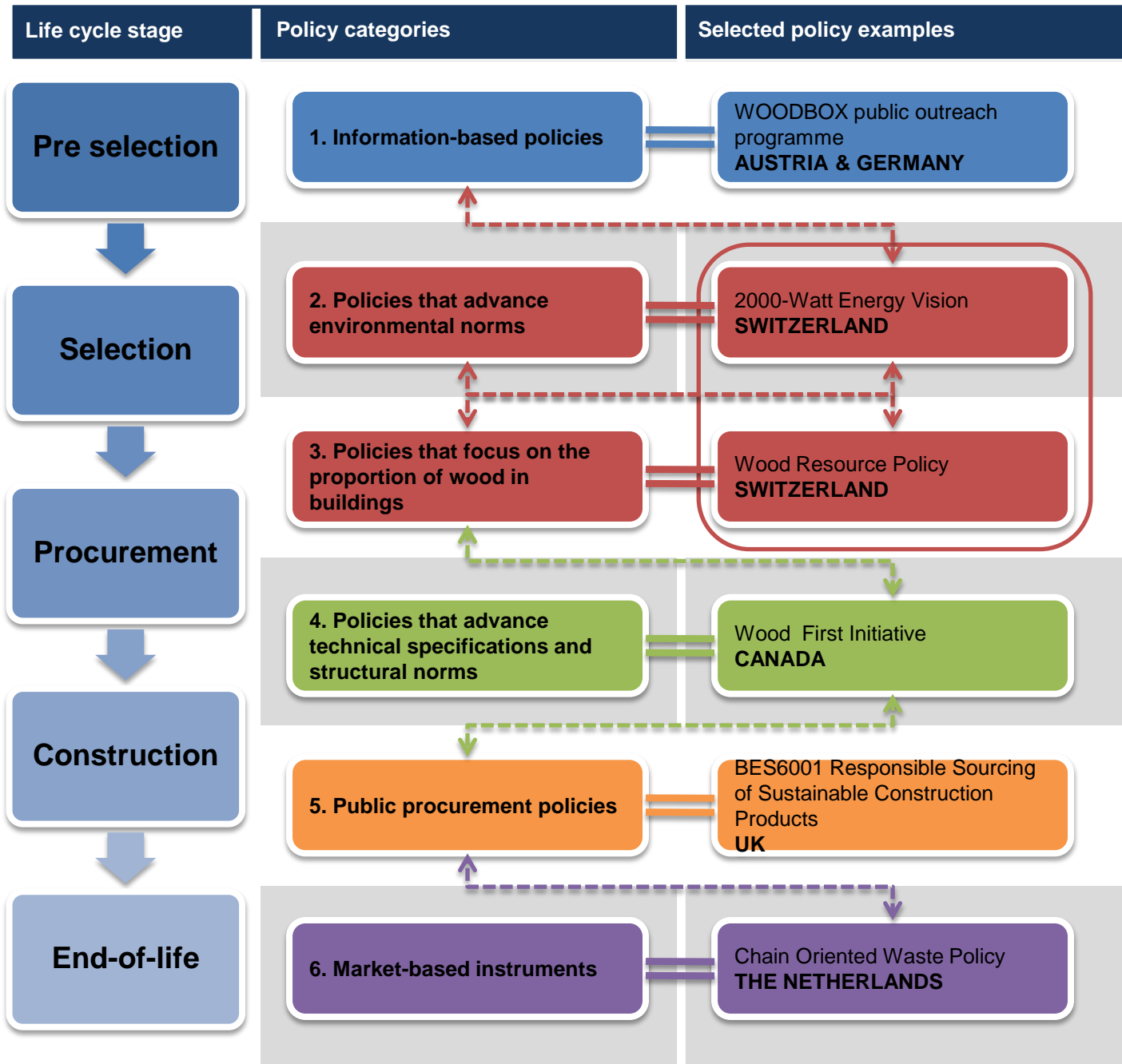


# Findings



Information on 28 policies selected to highlight leading practices

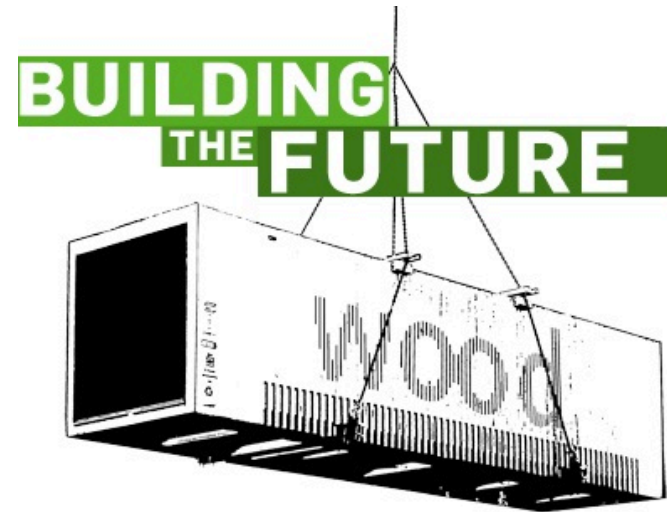




# Policy 1. WOODOBOX & WOODDAYS

## GERMANY & AUSTRIA

- An integrated public outreach programme
- Aims to build public awareness of the impacts of construction materials and the benefits of using wood
- Promotes modern methods of construction (pre-fab, etc.)
- 15,000 visitors in five locations (Milan, Brussels, Ljubljana, Bratislava, Klagenfurt)
- Plus full exhibition in Vienna



Pre selection

Selection

Procurement

Construction

End-of-life

# Policy 2. 2000-Watt Society

## SWITZERLAND

Pre selection

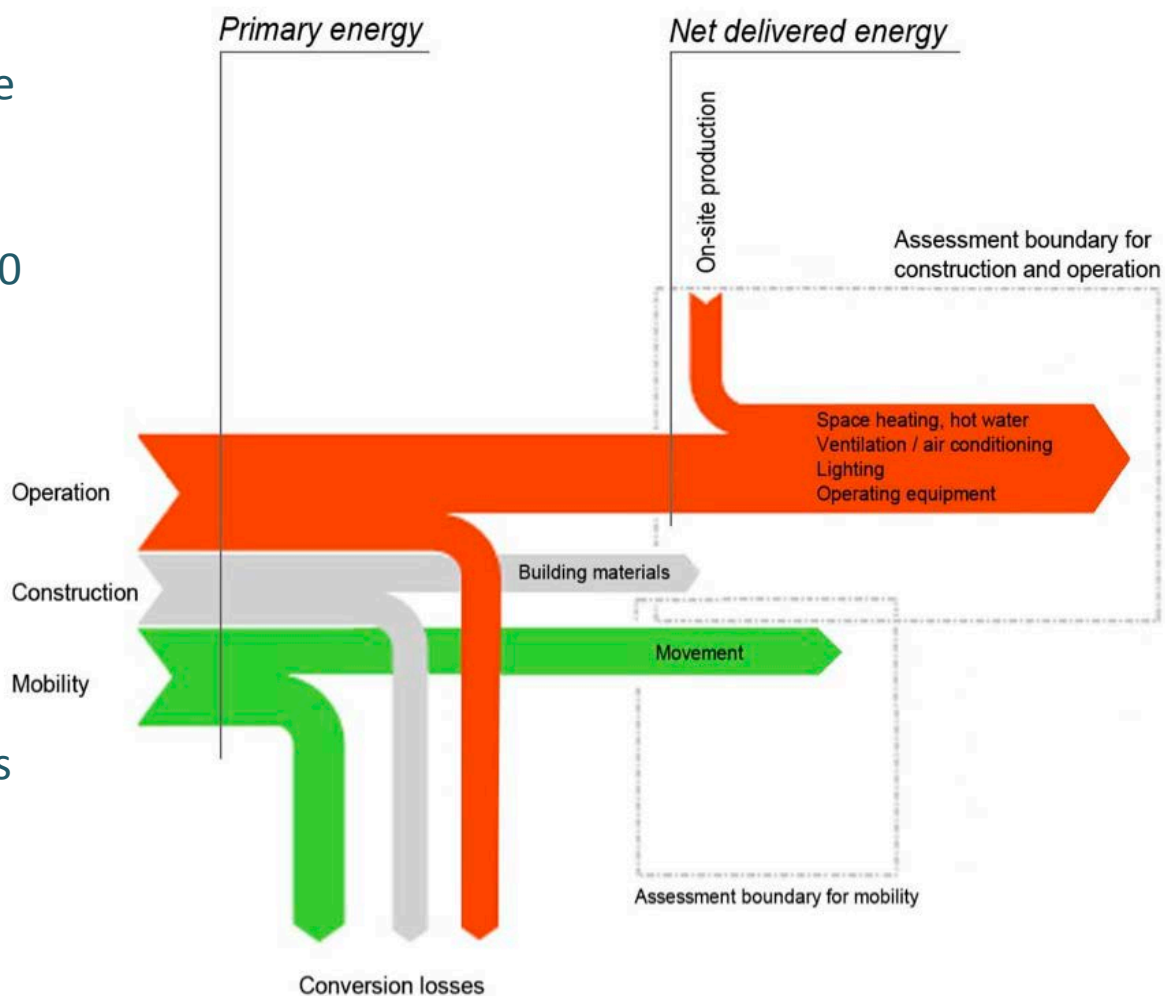
Selection

Procurement

Construction

End-of-life

- In-use and embodied energy/CO<sub>2</sub> impacts are regulated
- 2000 Watts & 1 tonne CO<sub>2</sub> per person by 2050
- Complex but rigorous, requires LCA
- Builds on extensive experience in low-carbon, design, construction and reporting
- Informs other materials and resources policies
- 70% Zurich residents voted in favour

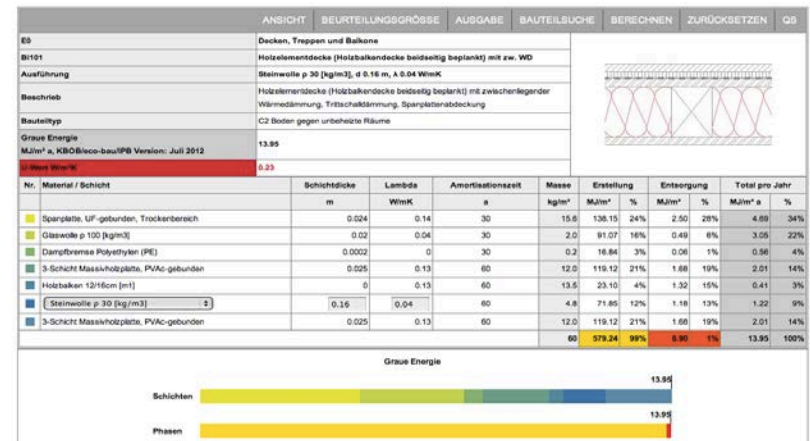


# Policy 3. Wood Resource Policy

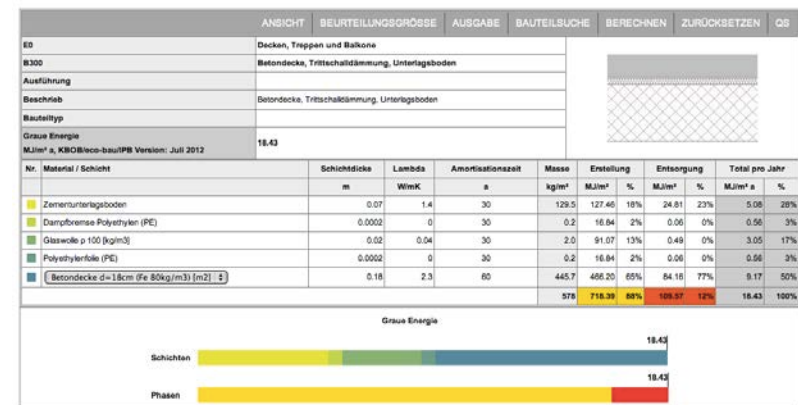
## SWITZERLAND

- Clear measurable standards and targets
- Cross-cutting mechanism promotes use of wood as a way to reduce embodied energy / CO<sub>2</sub> in buildings
- Supports 2000-Watt Society while increasing opportunities for local wood industry.
- At least 50% increase in the wood content from local forests in the entire Swiss building stock (new buildings) by 2020

### Wood floor system - 13.95 MJ/m<sup>2</sup>yr



### Concrete floor system – 18.43 MJ/m<sup>2</sup>yr



# Policy 4. Wood First Policy

## CANADA (B.C. & QUEBEC)

Pre selection

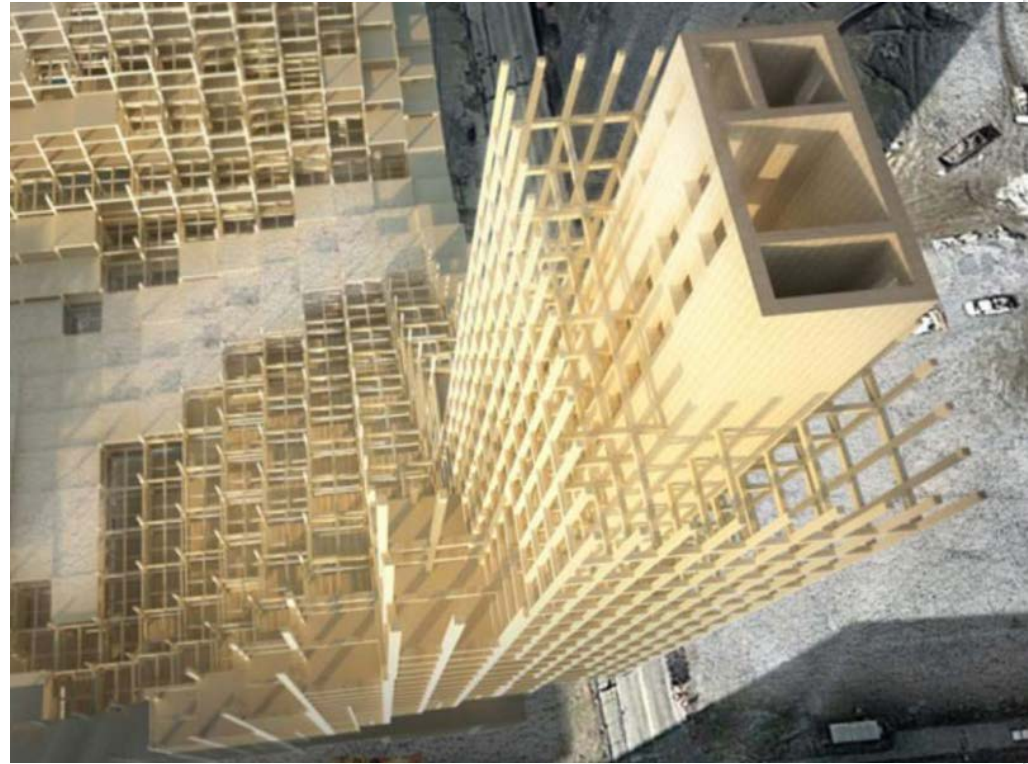
Selection

Procurement

Construction

End-of-life

- Facilitates the uptake of wood products in new and innovative situations
- Stimulates research into new techniques and technologies
- Market catalyst
- Develops small local markets as “shop-windows” of wood innovation for primary overseas markets.



18 storey wood residential tower proposed for University of B.C, Canada

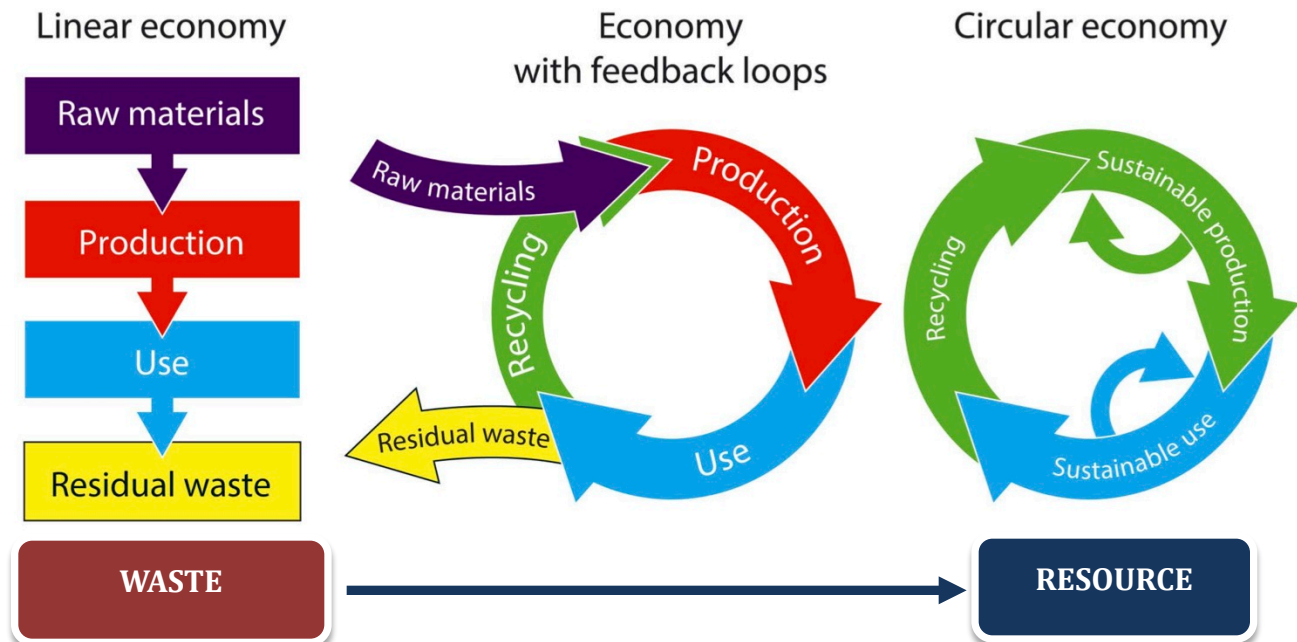
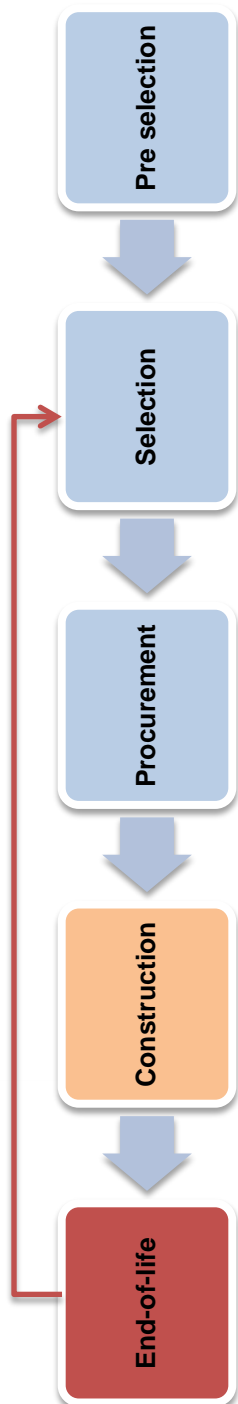




# Policy 6. Chain-Oriented Waste Policy

## THE NETHERLANDS

- Highest landfill taxes in Europe @ €107.49 per tonne
- Achieved 95% recycling and recovery rate for C&D waste – what's next?
- Considers entire material chain, including all stages in product's life cycle from raw material mining, production and use, to waste and possible recycling, as opposed to concentrating on "end-of-pipe" solution
- Focus is on reducing overall environmental pressures
- Actively working towards a "circular economy"





**The study ...**

**... will be published, soon!!!**





**Thank you for your attention !**

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**Contact Florian Steierer:  
[florian.steierer@unece.org](mailto:florian.steierer@unece.org)**

