

# Mobilization of Wood Resources for Wood Products and Energy: Challenges for Sustainable Forest Management

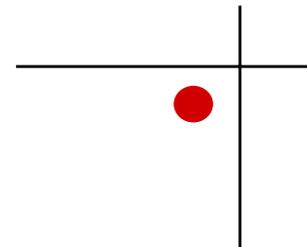
## Outcomes of UNECE/FAO and FAO Meetings

Ed Pepke, Forest Products Marketing Specialist  
and Sebastian Hetsch, Consultant  
Food and Agricultural Organization &  
UN Economic Commission for Europe  
Geneva, Switzerland



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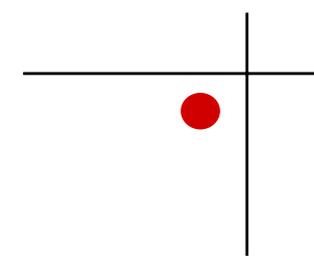
# Topics

- I. Background for bioenergy developments
- II. FAO seminar, October 2006
- III. UNECE/FAO workshop, January 2007
- IV. Conclusions



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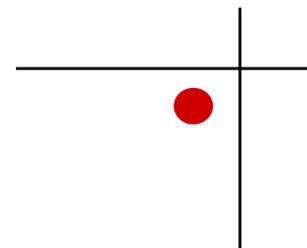
# Info sources

- FAO seminar proceedings
- UNECE/FAO workshop proceedings
- UNECE/FAO European Forest Sector Outlook Study
- UNECE/FAO Forest Resources Assessment
- UNECE/FAO TIMBER Database
- International Energy Agency
- EuroStat



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# Background issues

- Increasing fossil fuel prices
- Energy security
- Policies to reduce climate change
- Wood industries' wood needs

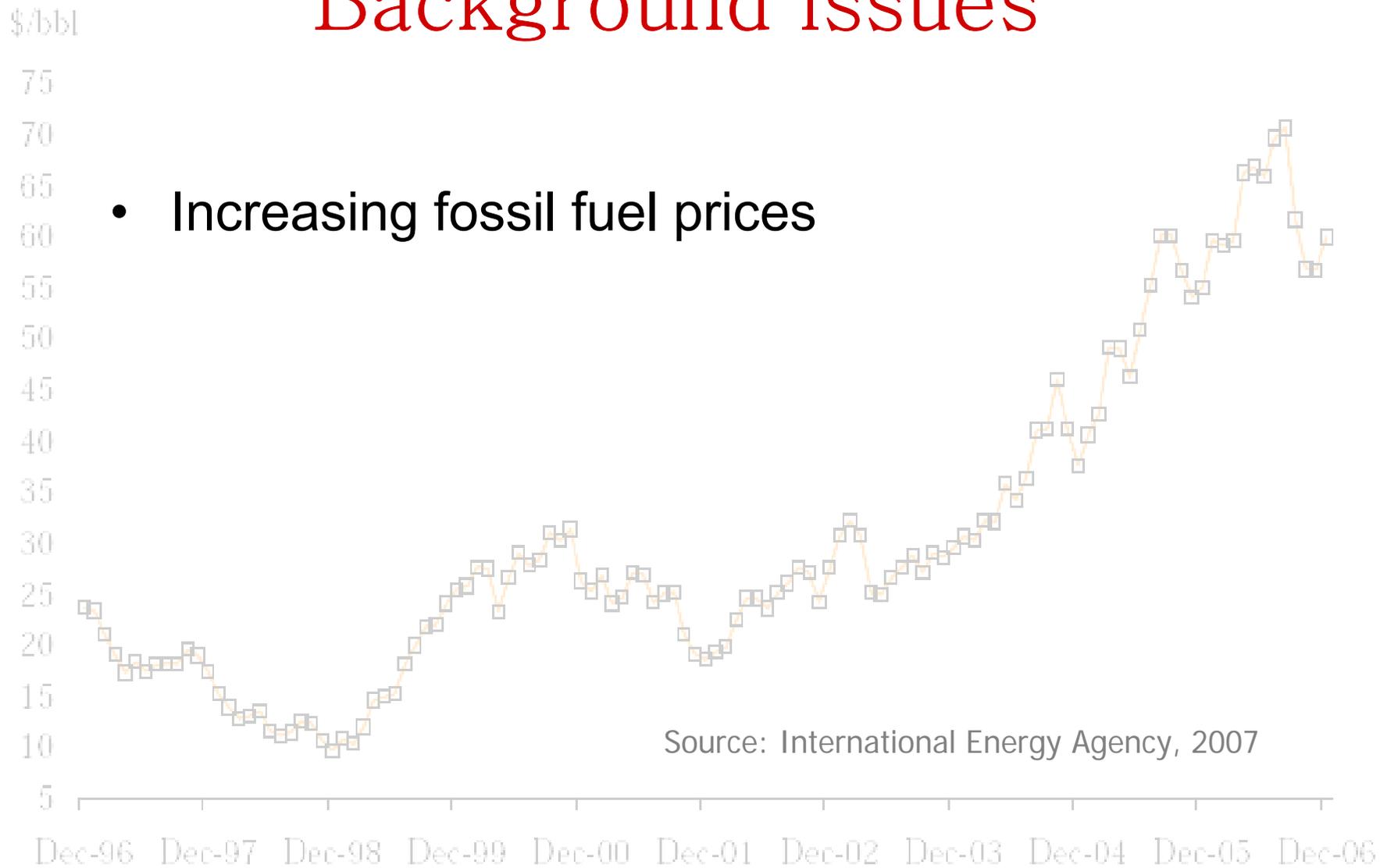


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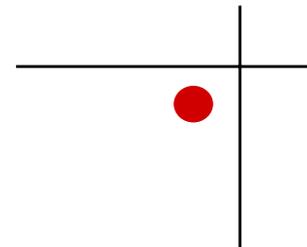
# Background issues

- Increasing fossil fuel prices



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# Background issues

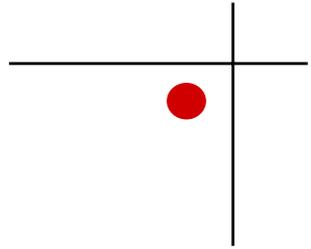
- Increasing fossil fuel prices
- Energy security
  - Middle East instability
  - Russian supply interruptions
  - Growing consumption, e.g. China
  - Nuclear safety



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# Background issues

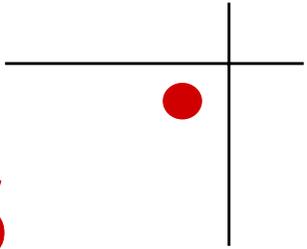


- Increasing fossil fuel prices
- Energy security
- Policies to reduce climate change
  - UNECE region
  - Kyoto Protocol
  - European Union & member countries
    - 20% renewable energy target in 2020
  - United States' government lagging behind

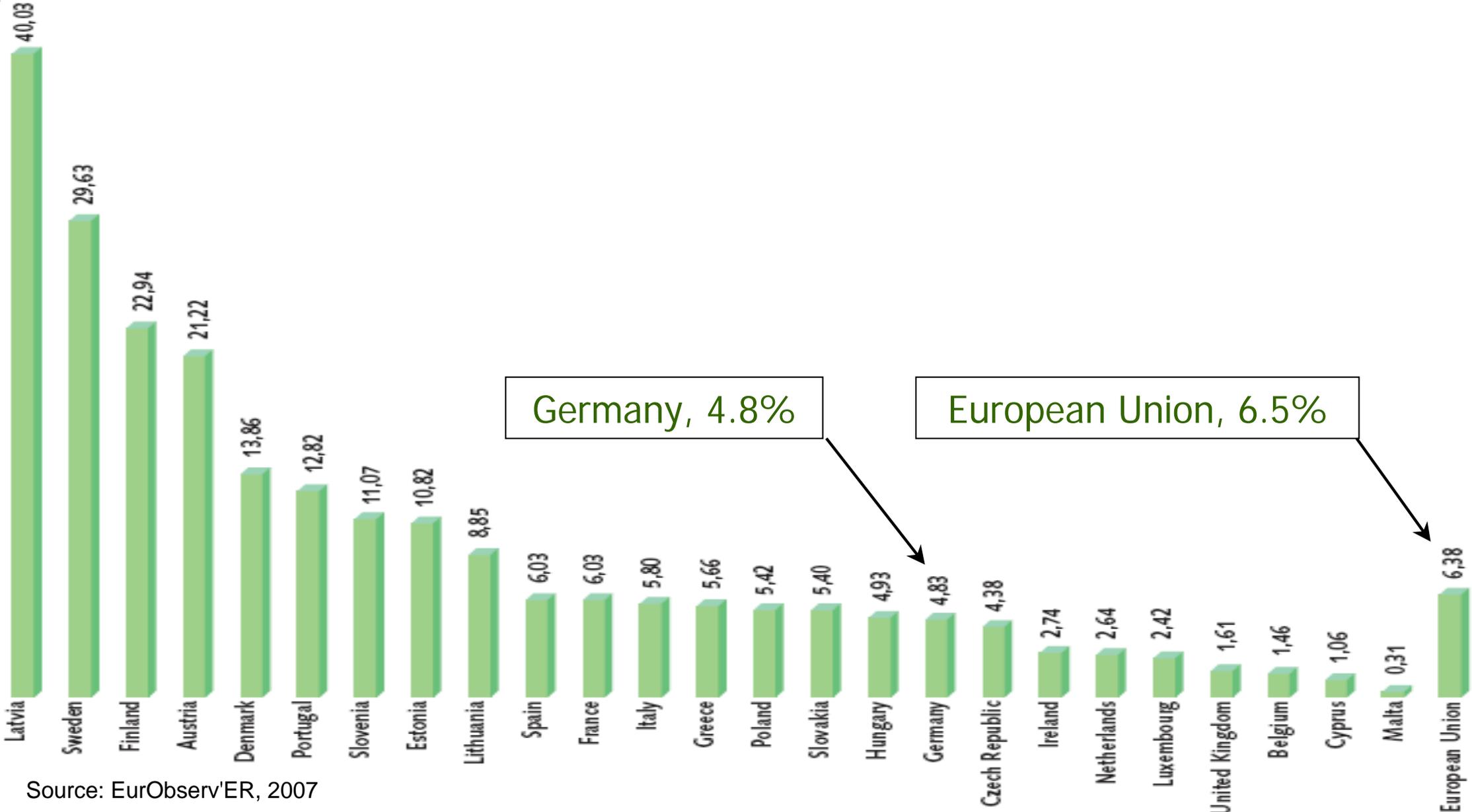


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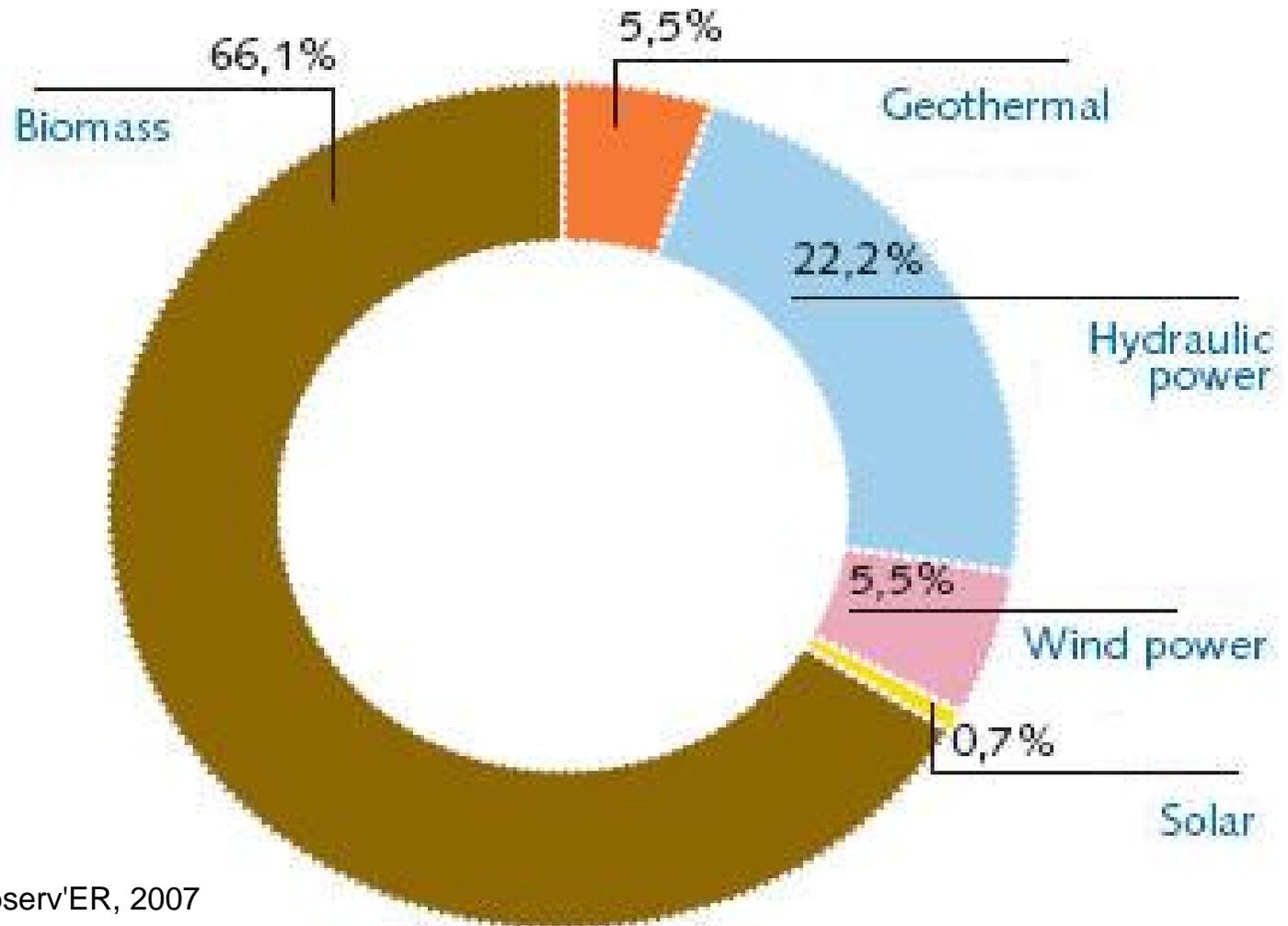
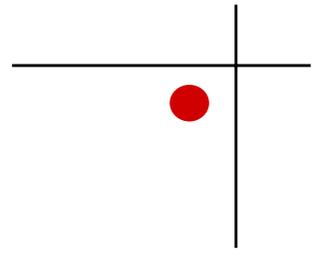


# EU renewable energy 2005



Source: EurObserv'ER, 2007

# EU renewable energy 2005



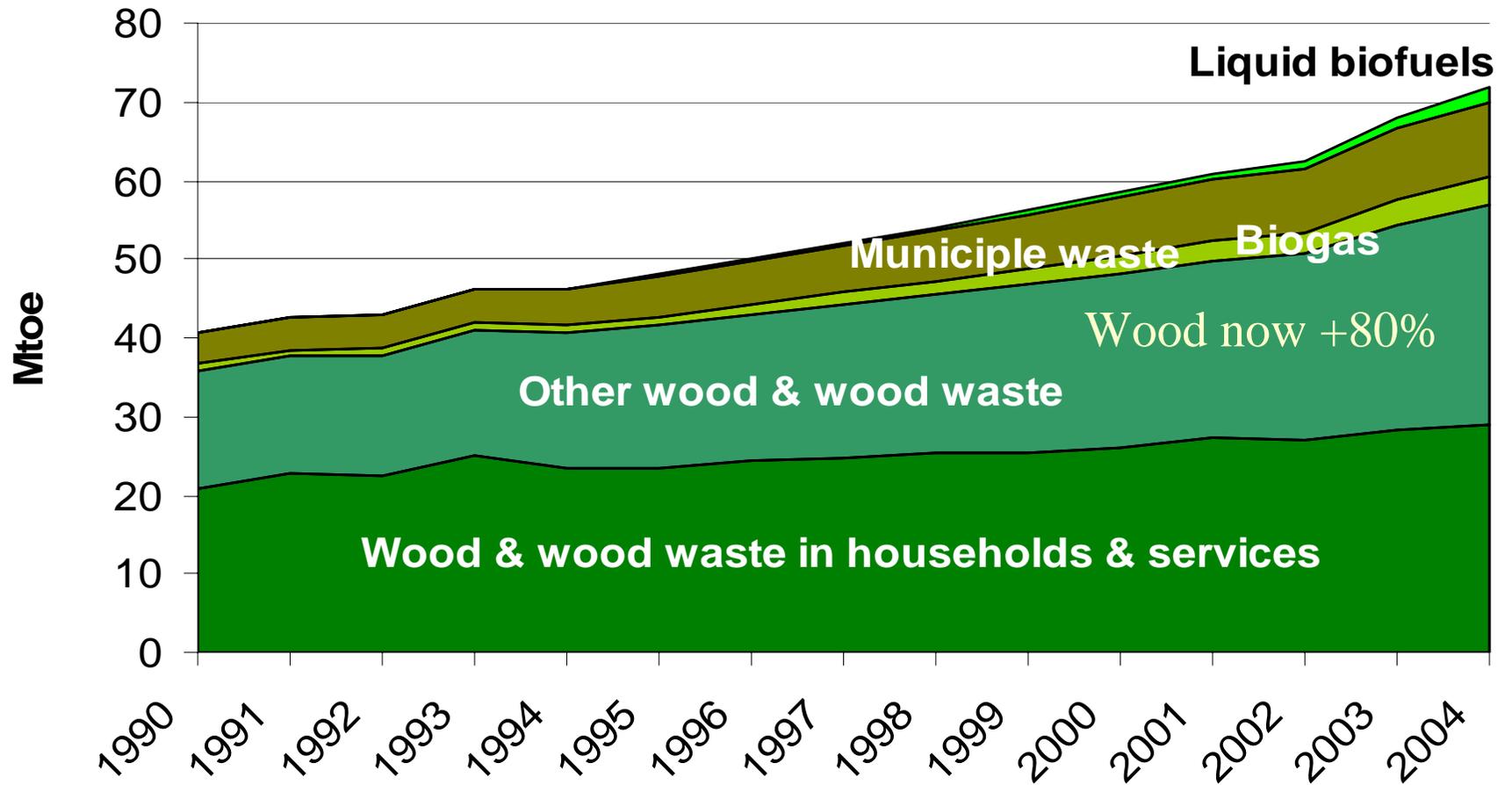
Source: EurObserv'ER, 2007



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# EU biomass use, 1990-2004



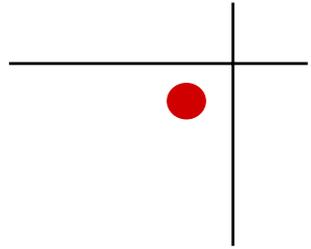
Source: Eurostat, 2007



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# Background issues



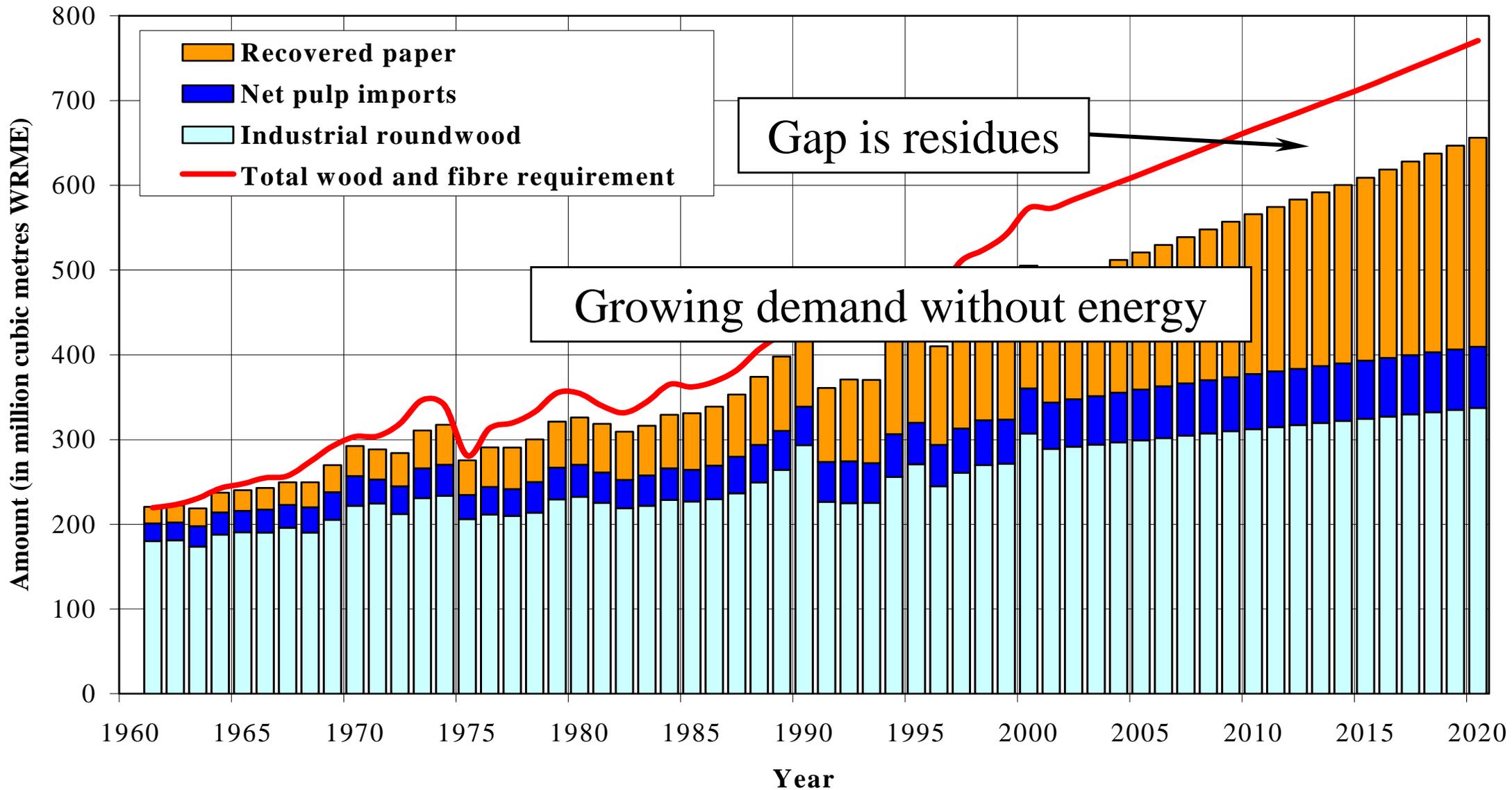
- Increasing fossil fuel prices
- Energy security
- Policies to reduce climate change
- Wood industries' wood needs
  - Increasing demand
  - Increasing raw material prices
  - Competition
    - Local can be intense
    - Short-term can be intense

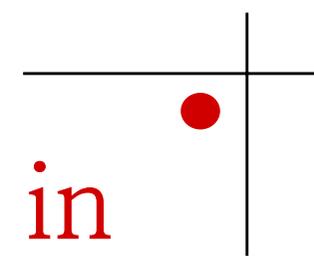


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# Western European wood and fibre requirements, 1960-2020





# Supply and demand dilemma in western Europe in 2010

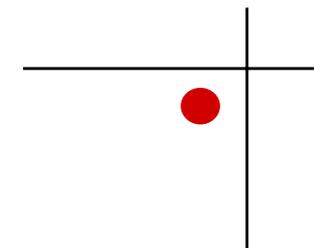
- Wood and paper industry – 312 million m<sup>3</sup> (wood raw material equivalent)
- Energy sector – 210 million m<sup>3</sup> (based on EU targets)
- Forests' annual growth – 505 million m<sup>3</sup> (net annual increment on forests available for wood supply)



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# Supply and demand dilemma in Europe in 2010



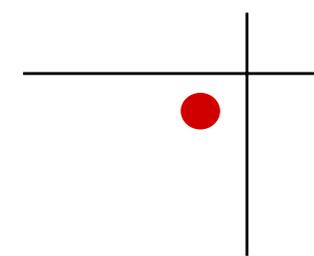
	Western Europe <sup>2</sup>		Eastern Europe <sup>2</sup>	
	2000	2010	2000	2010
<b>Industrial roundwood consumption</b>	271	312	81	107
<b>Energy targets (direct wood energy only)</b>	139	210	114	?
<b>Total direct wood supply for industry and energy</b>	411	522	195	?
<b>Net annual increment on forest available for wood supply (NB NOT directly comparable!)</b>	515	505	230	219
<sup>1</sup> [million m <sup>3</sup> WRME/year]	<p style="color: blue; text-align: center;">NAI not only source. Wood outside forests. Recovered wood too, e.g. 12 MM m<sup>3</sup> in Germany</p>			
<sup>2</sup> EFSOS country groups (new EU members are				
<sup>3</sup> Very rough estimation on basis of EU25 Biomass				

Source: UNECE/FAO European Forest Sector Outlook Study, 2005 and EU



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# International Seminar on Energy and the Forest Products Industry

October 2006, Rome

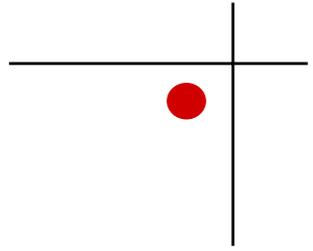
FAO, IEA, ICFPA, UNECE,  
ITTO, WBCSD



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# Energy and the Forest Products Industry Seminar

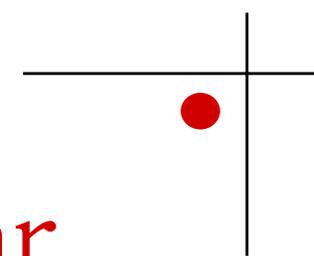


- Themes
  - Energy policies and trends
  - Role of wood as an energy source
  - Energy and material efficiency in the forest products industry
- Building on results of technical workshop on new technologies and systems leading to energy efficiency and CO<sub>2</sub> emissions reduction in pulp and paper industry



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# Energy & industry seminar conclusions

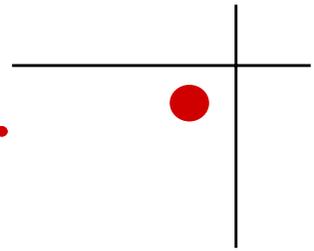
- Integrated and balanced energy and forest policies mitigate climate change
- Local actions with global vision
- Stable, sustainable regulatory frameworks needed for level playing field



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# Energy & industry seminar conclusions

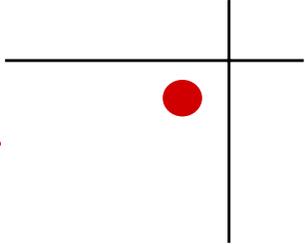


- Forest products industry combats climate change by
  - Optimizing raw material usage
  - Increasing efficiency
  - Producing bioenergy
  - Expanding into biofuel production
  - Improving sector competitiveness
- Forest products industry could be a net supplier of energy



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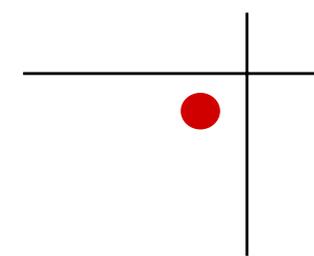
# Energy & industry seminar conclusions

- Forest products industry suffers an image problem – must be proactive
- Developing countries need assistance to use forest and mill residues for energy
- International organizations can
  - collect, analyze and distribute data and information
  - Develop partnerships, provide forums
  - Coordinate research



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# Mobilizing Wood Resources Workshop

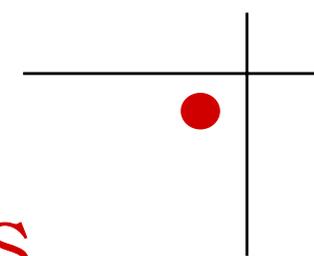
January 2007, Geneva

UNECE/FAO, FAO, CEPI,  
MCPFE, EFI



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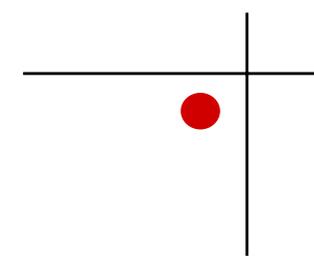
# Mobilizing Wood Resources Workshop

- Can Europe's forests satisfy the increasing demand for raw material and energy under SFM?
- Stakeholders, over 100, represented industry, government, international organizations, NGOs,



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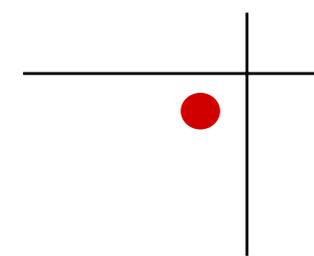
# Mobilizing Wood Resources Workshop conclusions

- Potential for increased wood supply
- Opportunities for increased mobilization



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# Forests increasing

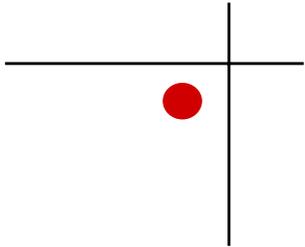
- European forest area
  - 193 million hectares
  - +7% since 1990
- North America area
  - 677 million hectares
  - No change since 1990
- Russian forest area
  - 809 million hectares
  - Small reduction since 1990

Sources: *State of the World's Forests*, 2007 and UNECE/FAO Forest Resources Assessment



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# Forests increasing

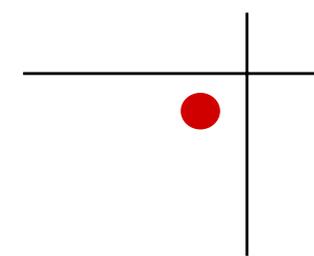
	Fellings as % of annual growth
Central Europe	61%
Nordics & Baltics	72%
Northwest Europe	53%
Southeast Europe	45%
EU 27	60%
Russia	34%
North America	80%

Sources: *State of the World's Forests*, 2007 and UNECE/FAO Forest Resources Assessment



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# Mobilizing Wood Resources

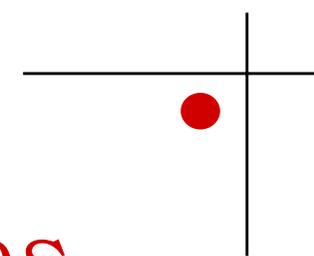
## Workshop principles

- Limits of sustainability
- Energy and resource efficiency
- Equal treatment (agriculture vs. forestry, imported vs. domestic)
- Respect regional variations



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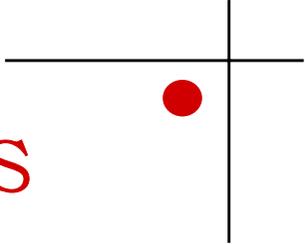
# Mobilizing Wood Resources Recommendations

- Coherence between different sector policies
- Integrate whole supply chain in biomass strategies
- Need for comprehensive reliable data
- Empower forest owners to form “clusters”
- Improve infrastructure and logistics
- Qualified workforce
- Capacity building and training



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# Mobilizing Wood Resources Implementation of findings

- MCPFE resolution on wood energy and mobilization
- UNECE/FAO activity
  - Wood energy data and information
  - Mobilization
  - Policy forum October 2007
- Opportunities for technical, policy assistance to developing countries, e.g. wood energy workshop in Balkan region

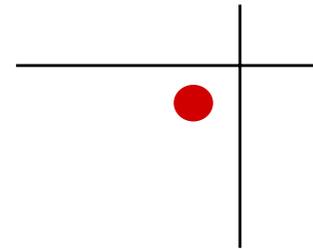


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# Conclusions

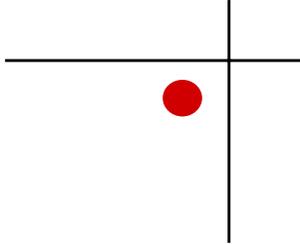


- Remember importance of climate change and energy security
- Increase in wood supply possible
- Realistic policy targets
- Requirement for reliable statistics and forecasts
- Consider impacts on other sectors
- Overall, an opportunity for the forest sector



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Ed Pepke  
Forest Products Marketing Specialist  
UNECE/FAO Timber Section  
448 Palais des Nations  
CH-1211 Geneva 10, Switzerland  
Tel. +41 22 917 2872  
Fax +41 22 917 0041  
Ed.Pepke@unece.org

Sebastian Hetsch  
Consultant  
UNECE/FAO Timber Section  
433 Palais des Nations  
CH-1211 Geneva 10, Switzerland  
Tel. +41 22 917 4170  
Fax +41 22 917 0041  
Sebastian.Hetsch@unece.org



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