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CEPF UNECE Partner Event
Policy Dialogue on
Potential Sustainable Wood Supply in Europe

Mobilisation and efficient use of wood and wood residues for energy generation

**DG AGRI H.4 "Bioenergy, biomass, forestry and climate
change"**

European Forest Week

Rome, 22 October 2008



Objectives and scope of work

Contribution to implementation of key action 4
of the EU FAP

(promote the use of forest biomass for energy
generation),

activity 4.1 of the work programme 2007-2011 of
the FAP – to improve the mobilisation and
efficient use of wood and wood residues,
including low-value timber



SFC ad hoc WG II consisted of

- 13 experts nominated by the MS
(AT, BUL, CZ, DK, FI, FR, DE, I, LV, L, ES, SW, UK)
- 7 experts nominated by stakeholders
(CEPF, USSE, CEPI, WWF, CEI-BOIS, ENFE, EUSTAFOR)

has met 6 times 22.05. and 16.10.2007;
18.01., 14.03., 30.05.2008

Final meeting 04.07.2008



Issues to be addressed in WG II

Draft short list of topics

1. Review on the use and the potential of forest biomass
2. Analysis of the influence of forest ownership on wood mobilisation
3. Analysis of nBAPs
4. Mapping good practices regards mobilisation
5. Analysis of factors inhibiting removal of more wood
6. Policy instruments promoting use of wood for energy generation
7. Examination of wood resources outside forests
8. Climate change and forest biomass potential
9. Possibilities to increase the supply of wood
10. Demand of wood for energy generation
11. Environmental sustainability of forest biomass use for energy generation



Inputs



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Study results

Mapping of good practices

Role of actors

Potentials and sustainability of wood mobilisation

Support Measures in Rural Development Programmes

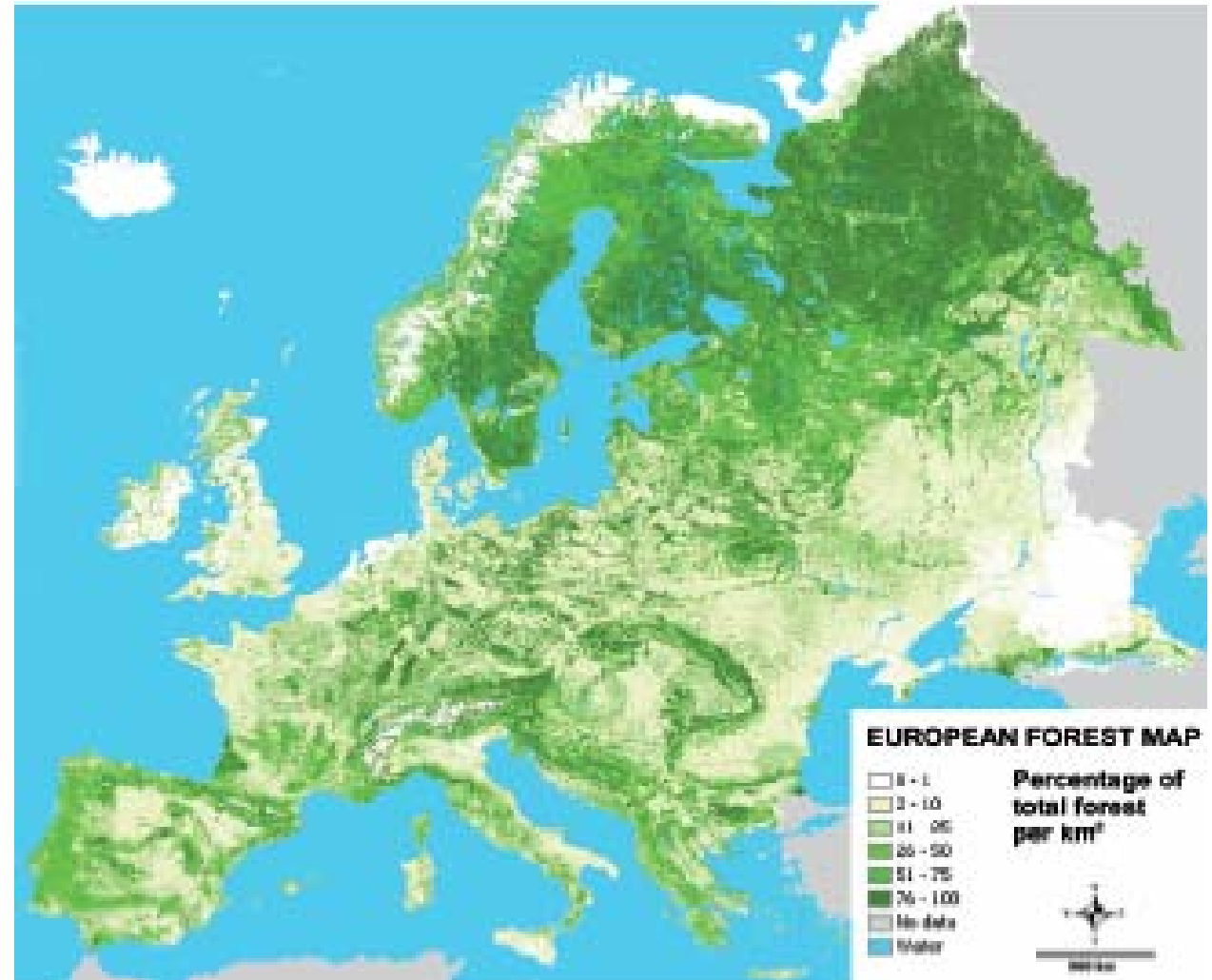


Forest biomass in the EU: forest resources



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- Forests and other wooded land: 166 million ha (43,2% of EU land area)
- **About 60% of annual growth harvested**
- Problem of mobilisation
 - 16 million private forest owners
 - Average size of private holdings 13ha (many < 5 ha); many forest owners are not market actors
 - Large national and regional variations in supply and use



3. Wood availability for energy generation in the EU

3.1 Potential

Several studies:

- physical potential 212 – 315 million cbm
- mobilisable potential 100 – 190 million cbm



No high precision estimation possible, but



clear potential, in forest residues, complementary fellings; first precommercial thinnings; private forests

5. Elements of wood mobilisation approaches: Experiences from EU Member States

- ⇒ **Markets, policies and initiatives: *Energy policies, strategic planning exercises***
- ⇒ **Support schemes for heat from biomass**
- ⇒ **Support for biomass supply: *Rural development programmes***
- ⇒ **Information, education, training, capacity building: *Role of public forest services***
- ⇒ **Establishment of forest owner groupings**
- ⇒ **Pilot projects and evaluation**
- ⇒ **Increase of wood biomass potential for energy**
- ⇒ **Wood mobilisation efforts on public forest land**

- ⇒ **Ongoing effort; measures directed to high-risk areas**

6. Challenges for mobilisation of wood

6.1 Sustainability

- ⇒ **Biodiversity: *Principles of sustainable forest management, deadwood; first thinnings; site adapted utilisation; Natura 2000 sites***
 - ⇒ **Site fertility**
 - ⇒ **Soil erosion and compaction**
 - ⇒ **Water protection**
 - ⇒ **Environmental synergies: *Nutrient leakage, forest fire risks***
 - ⇒ **Stump up-rooting**
 - ⇒ **Forest health and forest restoration**
-
- ⇒ **Sustainable forest management; adaptation of criteria and indicators and certification schemes**

6. Challenges for mobilisation of wood

6.2 Competitiveness of forest-based industries

- ➔ additional raw material needed; security of supply
- ➔ market mechanisms and competition
- ➔ improved co-operation between market partners

6.3 Efficiency and economic viability of wood mobilisation

- ➔ costs of processed wood fuel
- ➔ transaction costs
- ➔ harvesting operations
- ➔ work force
- ➔ innovative technology

6. Challenges for mobilisation of wood

6.4 Fragmentation, organisation and motivation of forest owners

- land swaps
- infrastructure improvement
- common forest management plan

- voluntary formation of forest owner groupings
- improvement of internal management structures

- reachability of forest owners
- motivation campaigns
- public-private partnerships
- additional services

Recommendations to increase wood mobilisation



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**Mostly related to wood mobilisation as general effort
Addressed to MS, regions, SFC, COM, stakeholders, industry**

Focus area 1:

To improve data on supply and use of wood

1.1

- National and regional potential of wood supply
- Household consumption of wood

1.2

- Periodical up-date on wood supply and wood use
- Wood-fuel market reviews
- Renewable energy statistics

Recommendations to increase wood mobilisation



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Focus area 2:

To develop national / regional wood mobilisation strategies

2.1

- Prognosis of production, demand and utilisation of wood

2.2

- Co-operation in developing wood mobilisation strategies
- Exchange of experiences on good practices

Focus area 3:

To increase the potential of wood for energy and material use

3.1

- Support afforestation and active sustainable forest management
- Disseminate experiences on silvicultural potentials

3.2

- Increase in collection, up-date and use of recovered wood for energy

Recommendations to increase wood mobilisation



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Focus area 4:

To ensure sustainable provision of forest biomass

4.1

- Continue development of sustainability criteria for biomass for energy production
- Active participation of MS and stakeholders

4.2

- Exchange experiences on sustainable biomass harvesting
- Possibly adapt management practices
- Research projects on impacts of new harvesting technologies

Recommendations to increase wood mobilisation



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Focus area 5: To develop and maintain efficient wood supply chains and markets

5.1

- Infrastructure development
- local bioenergy developments
- Improve road transport

5.2

- Interoperability of specifications and measures
- Common terminology and conversion factors

5.3

- Introduction of innovative techniques and technologies
- Development of biomass trading centres

5.4

- Improve market co-operation of market partners
- Encourage private – public partnerships for wood mobilisation

5.5

- Education and training for skilled workforce
- Campaigns to improve image and attractiveness of forest related jobs

Recommendations for wood mobilisation



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Focus area 6:

To strengthen efforts for forest owner motivation, organisation and awareness-raising

6.1

- Assess options to cope with ownership fragmentation
- Use of forest management plans for individuals and groups
- Ease access to basic forest owner related data

6.2

- Continue capacity building support for forest owner groupings
- Explore options to encourage and support the establishment of forest owner groupings

6.3

- Conduct national and regional awareness-raising campaigns for owners and general public
- Review communication strategies towards forest owners

Recommendations for wood mobilisation



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Focus area 7:

To enhance support means, incentives and coordination efforts for wood mobilisation

7.1

- Evaluation of support measures for sustainable forest management
- Exchange experiences on support options

7.2

- Continue to support infrastructure development and improvement
- Fund actions to facilitate the up-take of renewable energy sources
- Focus measures on areas at high risks as well as mountainous areas
- Strengthen support for biomass production in future revisions of Rural Development Programmes

7.3

- Ensure adequate education, training and skills programmes
- Continue to support capacity building for sustainable forest management
- Strengthen and improve co-operation and co-ordination between actors in wood mobilisation

Recommendations for wood mobilisation



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Focus area 8:

To promote research and technological development in the field of forest production, harvesting technologies and wood utilisation

8.1

- Continue support for forestry research and technological development
- Make full use of the Forestry Technology Platform and the Strategic Research Agenda
- Other research topics of major importance

8.2

- Disseminate research results at the operational level and to decision makers
- Exchange research findings and experiences

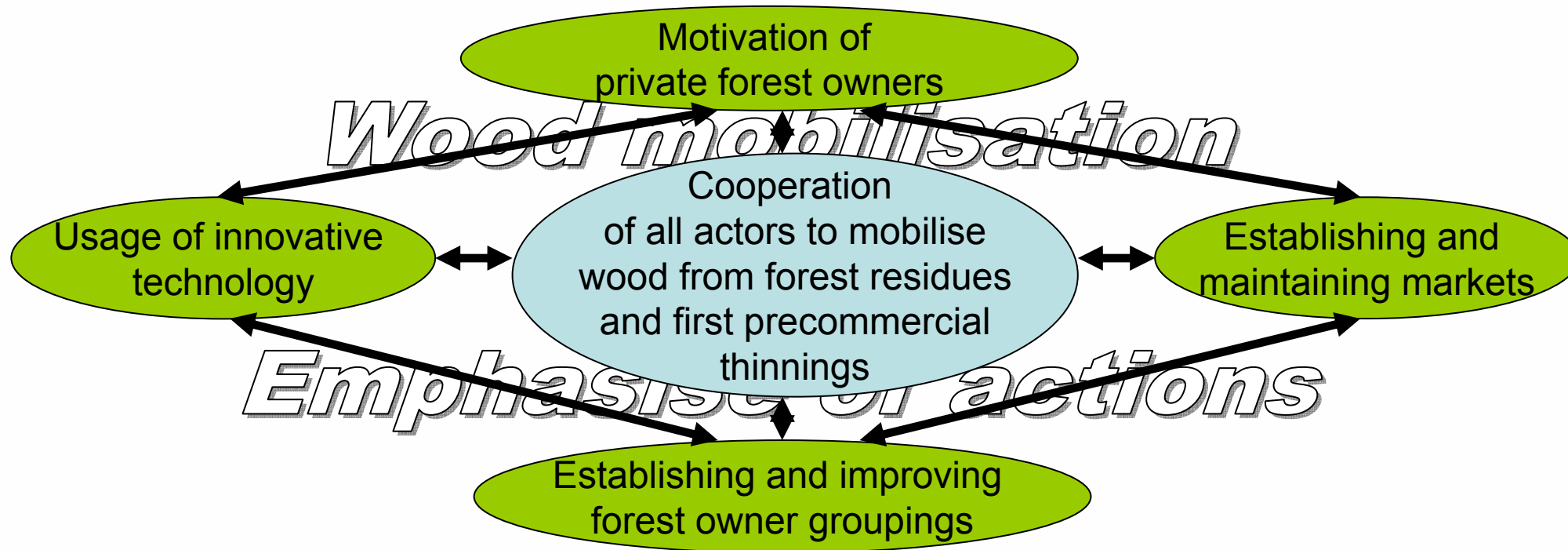
Concentration on forest residues and first thinnings

Regional emphasis on mountainous and other forest areas with high social functions as well as high risks for forest fires, storms, biotic threats



Supportive Framework

Regulatory Economic Informational Structural



Sustainability

Economic viability
Wood biomass potential

Efficient use



Northern Europe



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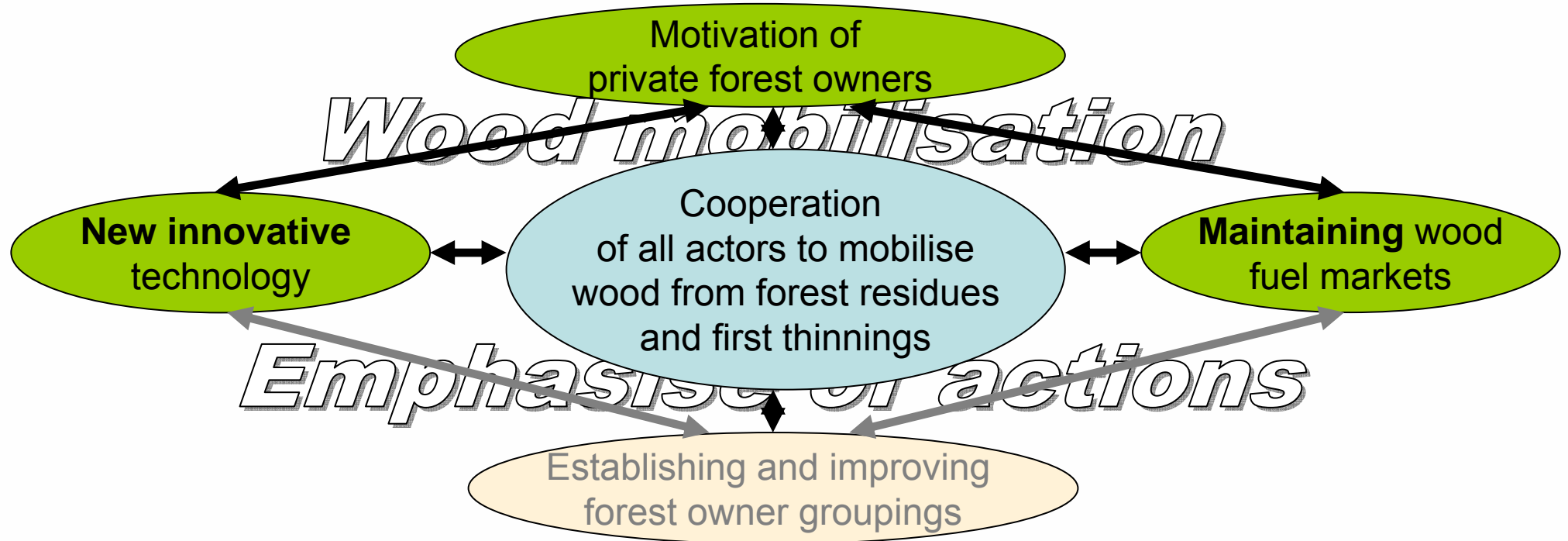
Supportive Framework

Regulatory

Economic

Informational

Structural



Sustainability

Economic viability
Wood biomass potential

Efficient use



Central, parts of Western Europe



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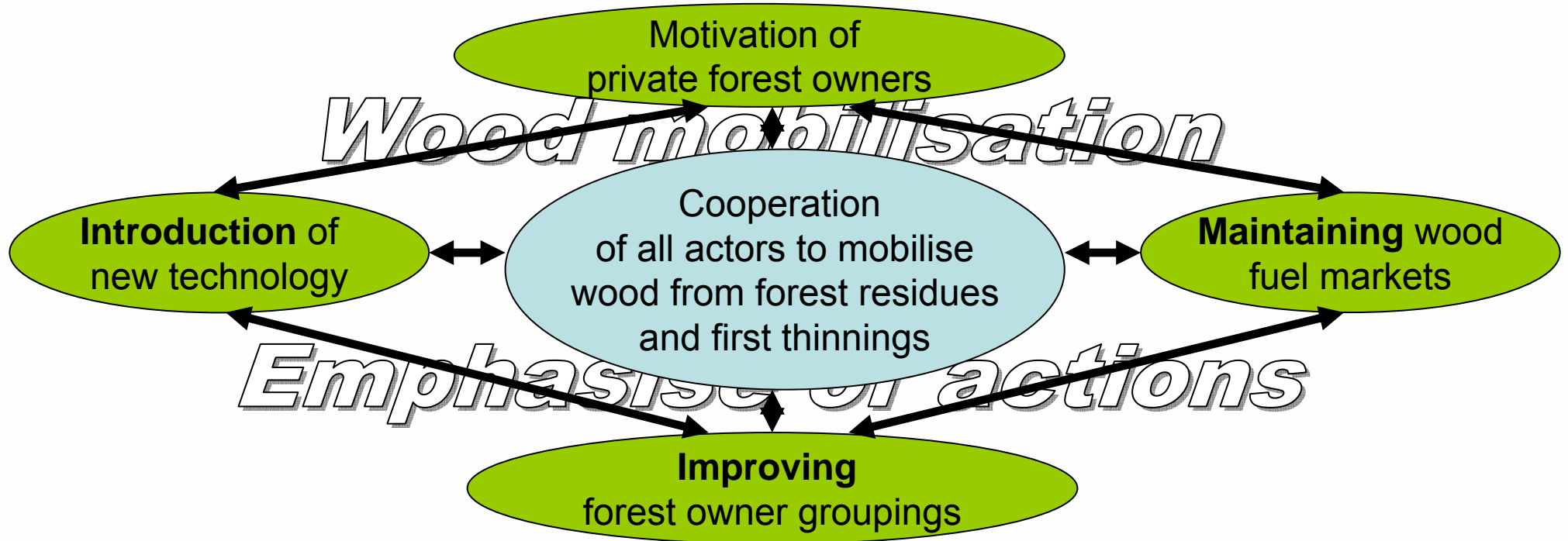
Supportive Framework

Regulatory

Economic

Informational

Structural



Sustainability

Economic viability
Wood biomass potential

Efficient use



Southern Europe



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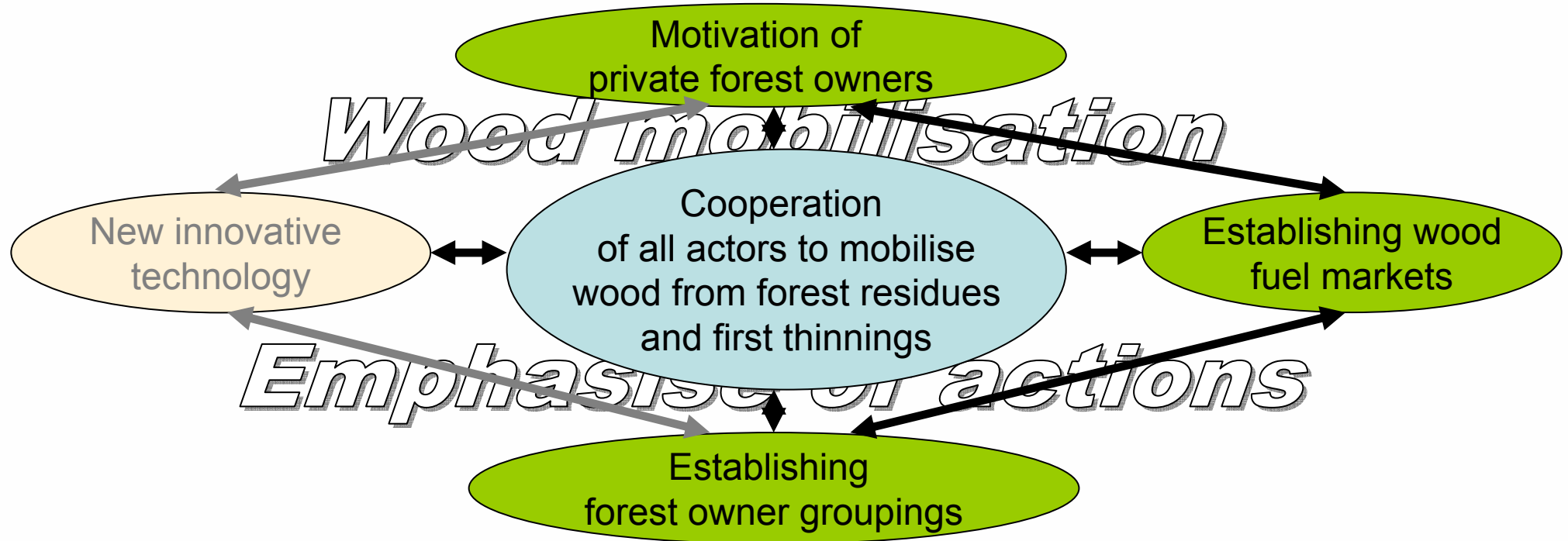
Supportive Framework

Regulatory

Economic

Informational

Structural



Sustainability

Economic viability
Wood biomass potential

Efficient use



New Member States; Eastern Europe



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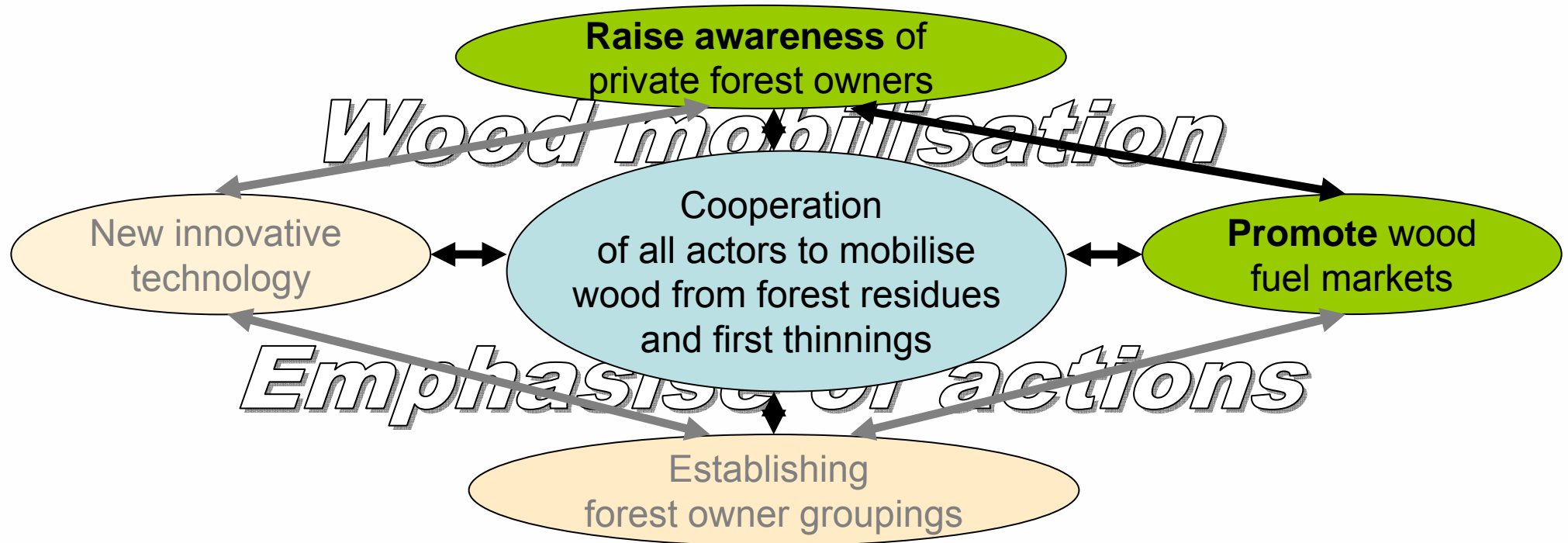
Supportive Framework

Regulatory

Economic

Informational

Structural



Sustainability

Economic viability
Wood biomass potential

Efficient use



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Thank you for your attention



WG II Report

Executive summary

Report

1. Introduction

2. Scope of work

3. Wood availability for energy generation in the EU

3.1 Potential

3.2 Supply and use of wood for energy in Europe

3.3 Competing use of wood for energy and raw material

4. Factors affecting supply and demand of wood for energy



5. Elements of wood mobilisation approaches: Experiences from EU Member States

6. Challenges for mobilisation of wood

6.1 Sustainability

6.2 Competitiveness of forest-based industries

6.3 Efficiency and economic viability of wood mobilisation

6.4 Organisation and motivation of forest owners

7. Conclusions – lessons learned

8. Recommendations to improve wood mobilisation

9. Annex



WG II Report



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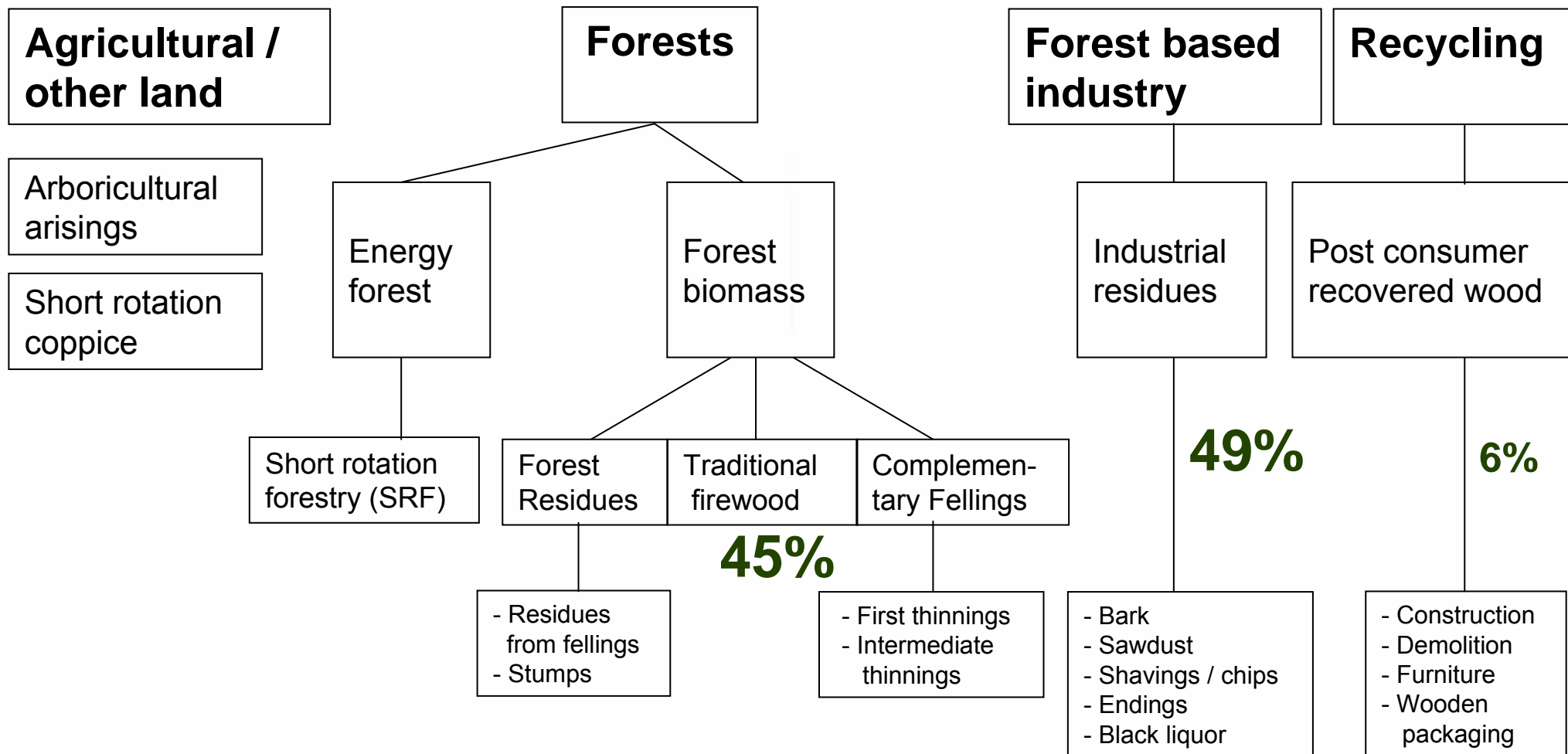
3. Wood availability for energy generation in the EU

3.2 Supply and use of wood for energy in Europe data of JWEE 2007, 12 MS

Wood Based Fuels: - supply -

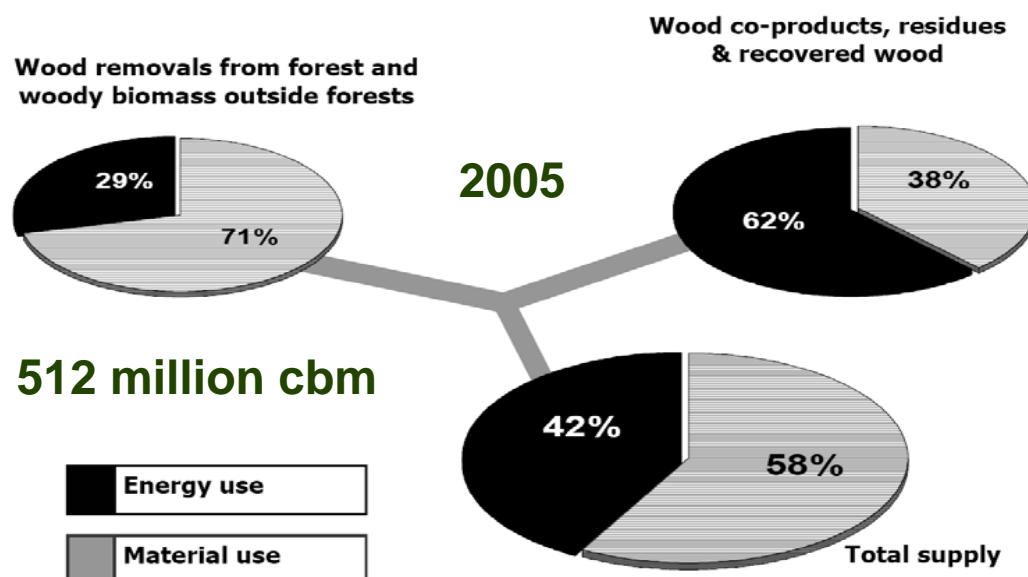


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3. Wood availability for energy generation in the EU

3.3 Competing use of wood for energy and raw material



EEA: competing use increase

2020: 9,2 million cbm
2030: 73,6 million cbm

UNECE/FAO:

2020: 43%- 49% material use
57%-51% energy use

3. Wood availability for energy generation in the EU

- ⇒ **increase in wood demand forecasted**
- ⇒ **synergies in mobilising wood regards energy and raw material use**
- ⇒ **higher direct use for energy than assumed**
- ⇒ **data shortcomings**

4. Factors affecting demand and supply of wood for energy

Demand determining factors

households, authorities, industry

- ⇒ co-ordination efforts in decentralised development
- ⇒ initial phase investments
- ⇒ data shortcomings, uncertainties about fuel quality
- ⇒ **standardised measures, long-term contracts**

4. Factors affecting demand and supply of wood for energy

Supply determining factors

- ⇒ Economic: *Production costs, logistics*
- ⇒ Social: *Motivation of forest owners*
- ⇒ Structural and organisational: *fragmentation, organisation*
level
- ⇒ Technical and human resources
- ⇒ Informational: *Skills, knowledge*
- ⇒ Supportive framework: *sustainable forest management*
- ⇒ forest owner motivation