



University of Natural Resources and  
Applied Life Sciences Vienna  
Department of Landscape, Spatial and  
Infrastructure Sciences

# European Forests: Recreation Planning and Management for a changing society

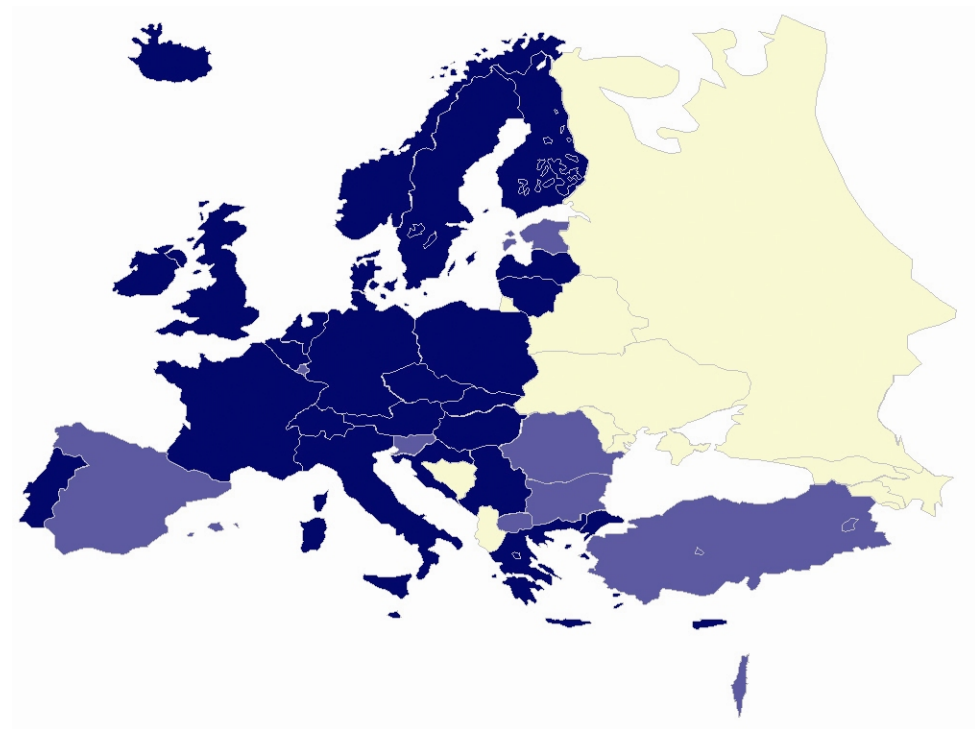
Selected results of COST Action E 33, WG 3



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# Recreation planning and management

- Aims of WG 3:
  - reviewing the current state of knowledge and methods regarding recreation planning and management, of conflicts and management concepts
- 26 countries



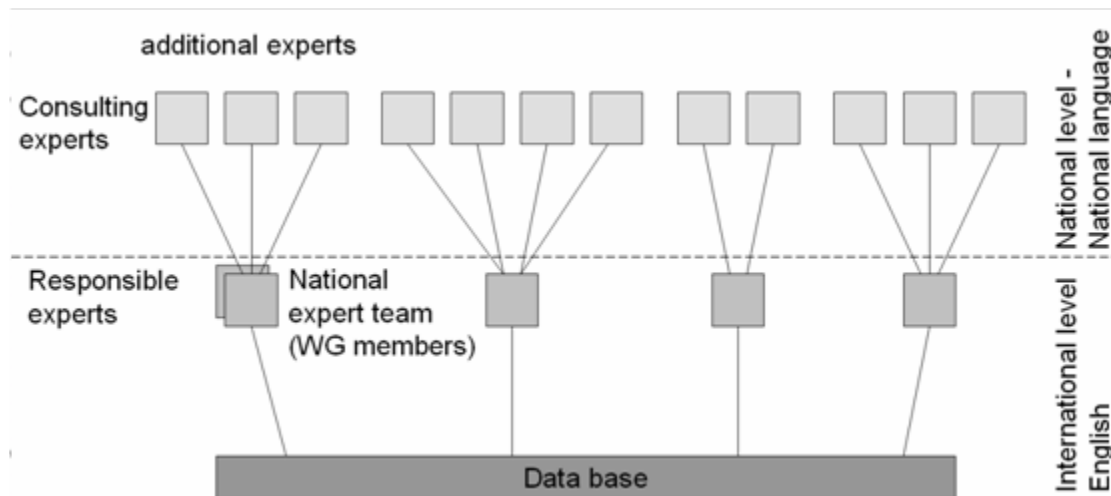
# Research questions

## Recreation planning and management:

- Which conflicts arise in European Forests due to recreational use?
  - Can patterns be analysed across Europe?
- What are the management implications including new societal demands?
  - Which management actions are applied across Europe?
  - How is the acceptance of the actions?
  - Can patterns be analysed across Europe?
- What are pan-European challenges and possible solutions?

# Method

- Expert based survey



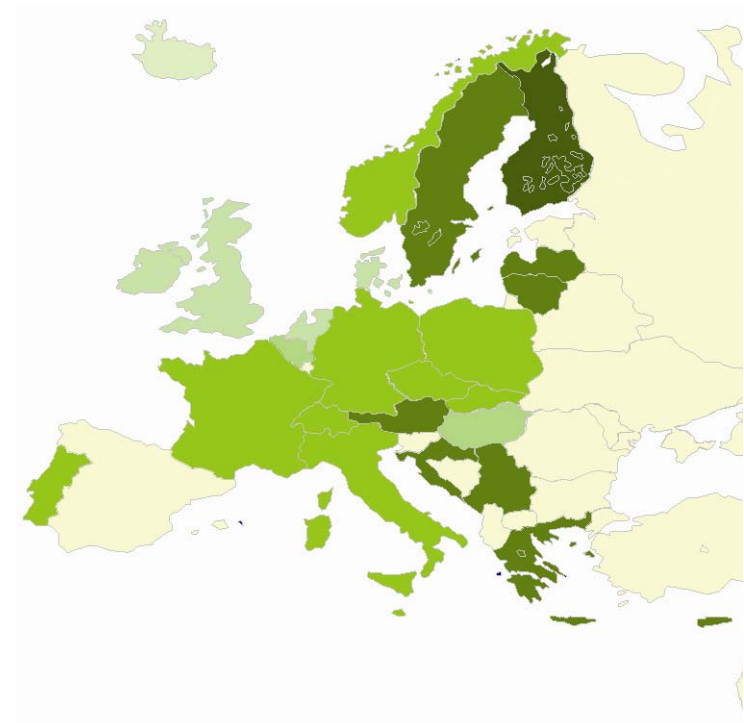
- Representatives of each country (WG members)
- Consulting additional experts
- No language barrier

# Forest cover

- Forest cover and population density in Europe are determine the conflicts and the demand across Europe

		Population	Amount of forest (ha)
European region	Forest Cover	density	per inhabitant
Atlantic region	10%	210	0.13
Nordic region	57%	18	3.26
Central region	34%	156	0.26
Eastern region	33%	94	0.47
Mediterranean region	39%	113	0.39

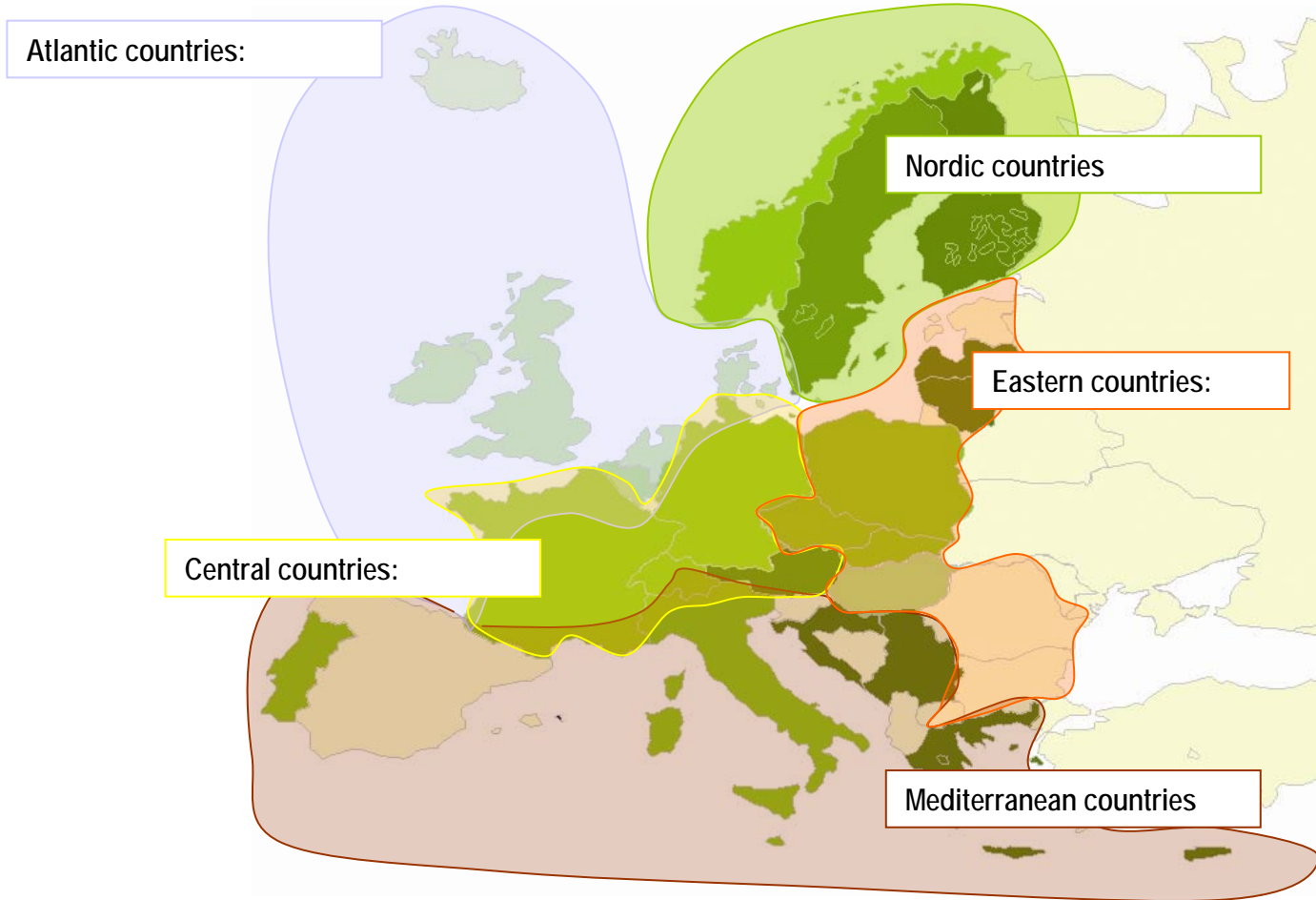
*Forest cover: eta = .838 (P < 0.001), population density: eta=.557 (P < 0.10), amount of forest/inhabitants: eta=.937 (P < 0.001)*



# Conflicts + Management



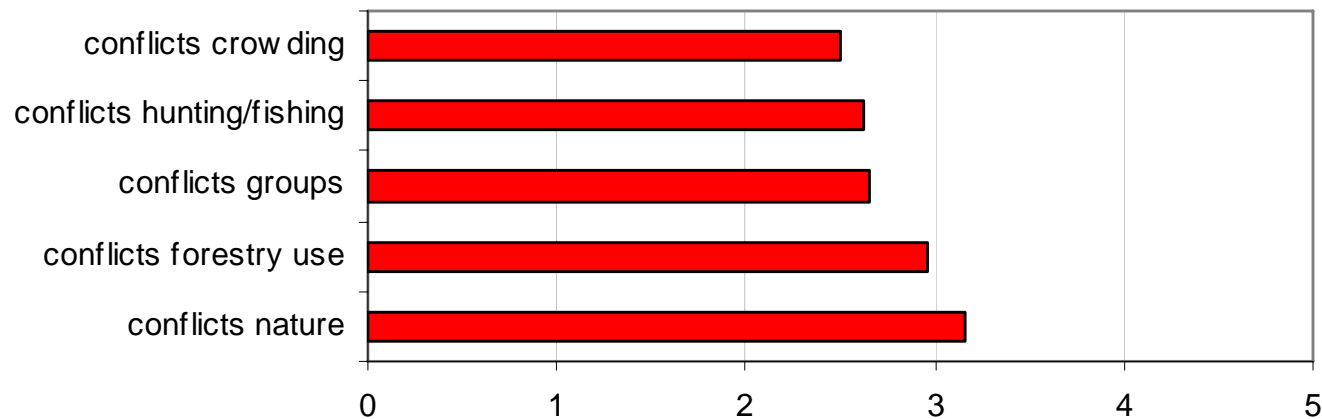
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Furthermore cultural, historical, traditional and climatic factors are influencing the activities and recreational conflicts

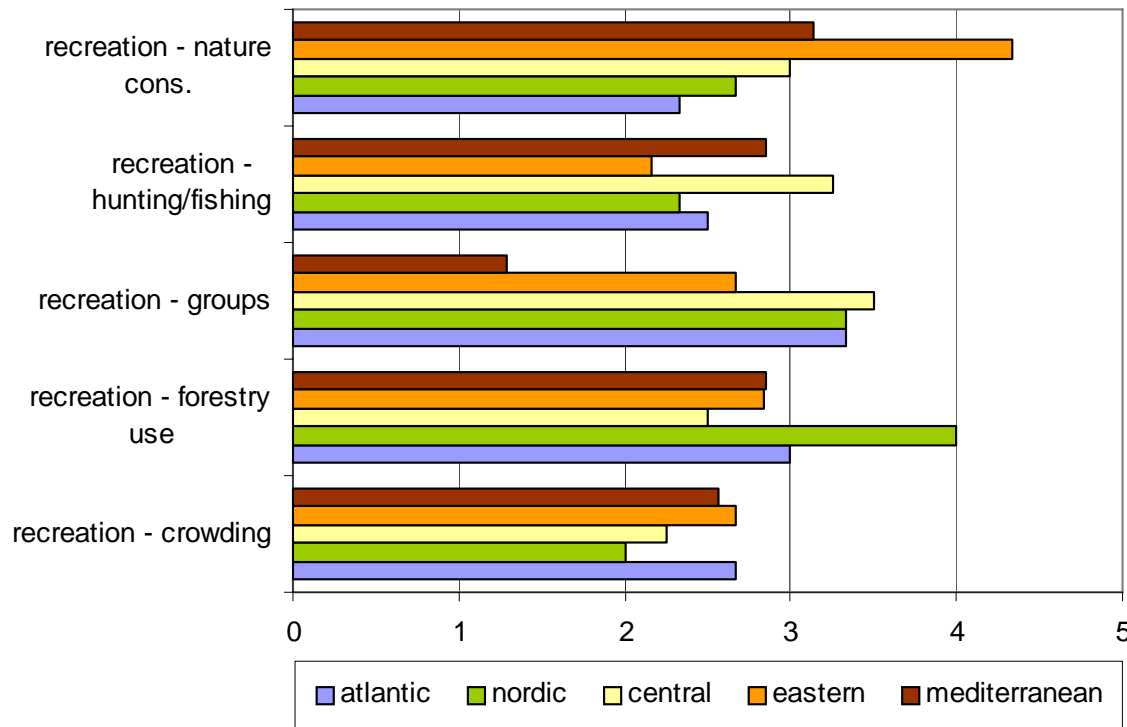
# Conflict types

- Main conflict types in Europe



# Conflict types

- Analysis of regional patterns

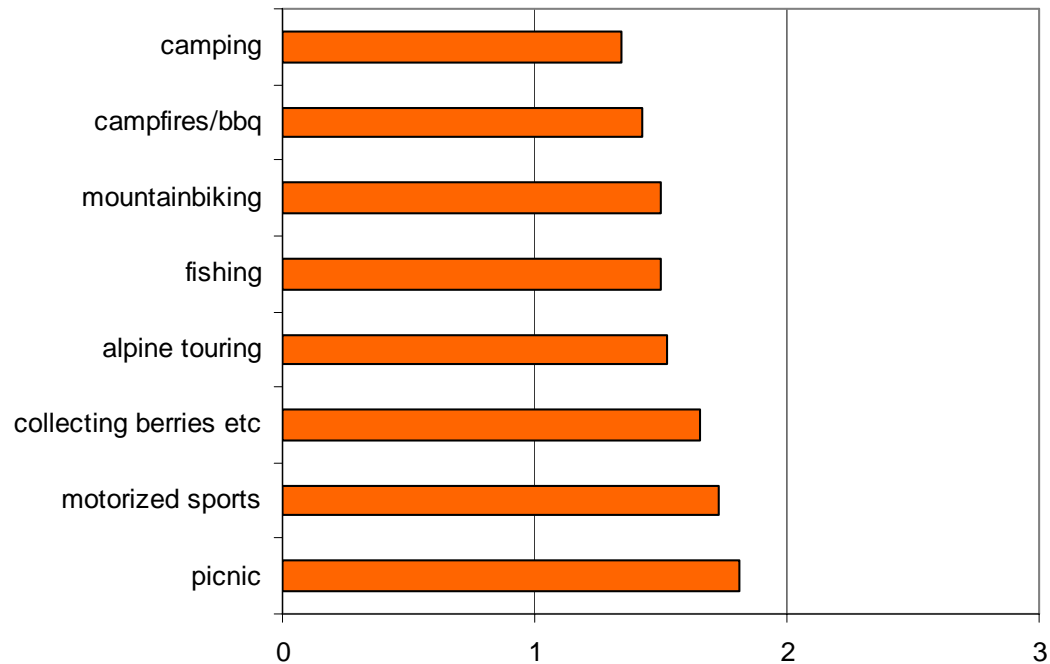


- Differences between groups are significant at 0.05 level for nature conservation and groups

Measures of Association	Eta
conflicts groups * region	0,69313204
conflicts crowing * region	0,28804962
conflicts forestry use * region	0,37141264
conflicts hunting/fishing * region	0,3682516
conflicts nature * region	0,62866219

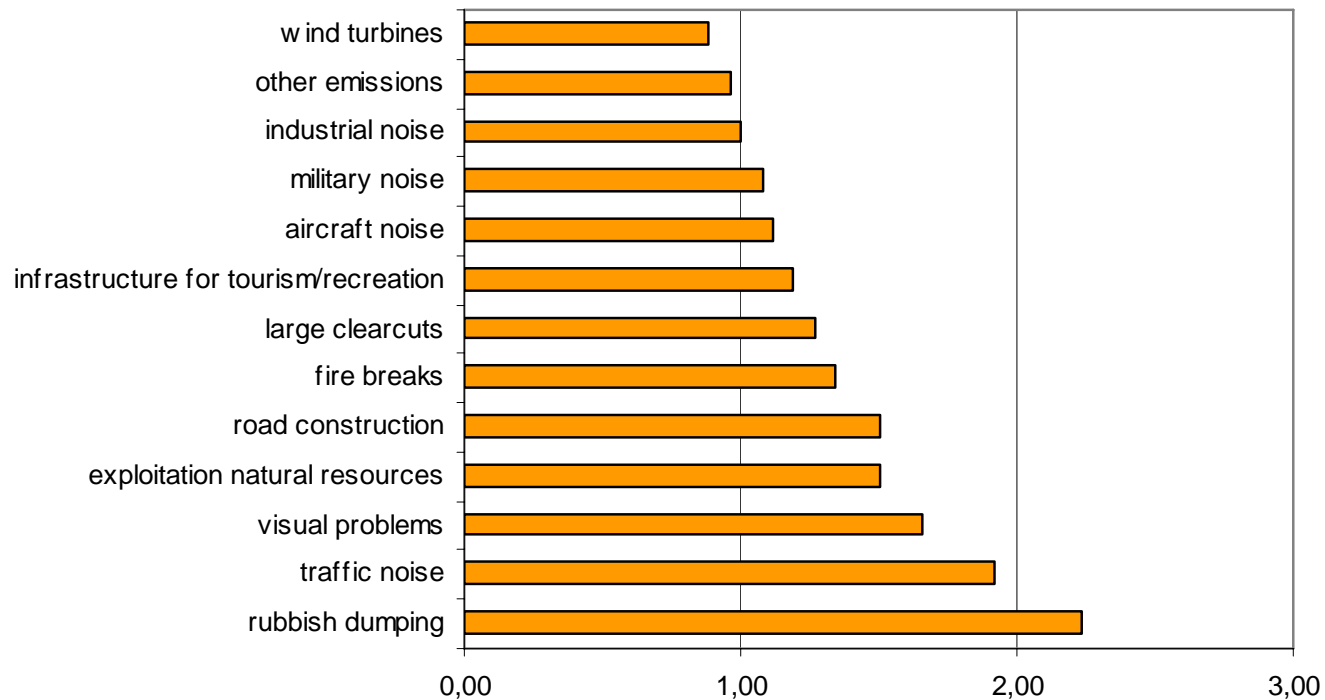
# Activities

- Main activities causing conflicts in Europe



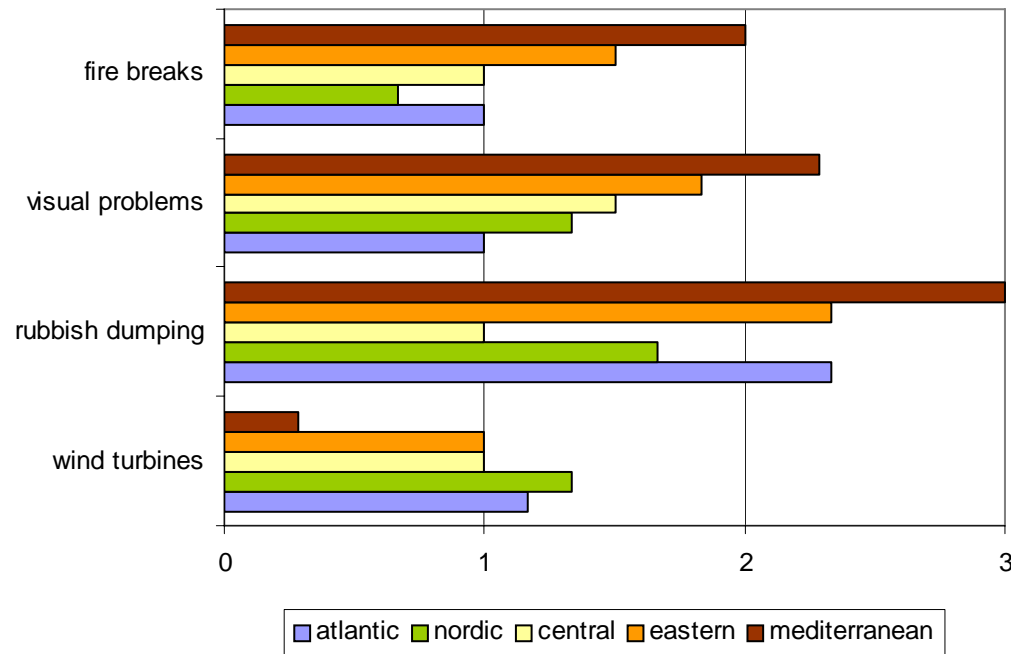
# Conflicts/ impacts

- Main impacts on forest recreation in Europe



# Conflicts/ impacts

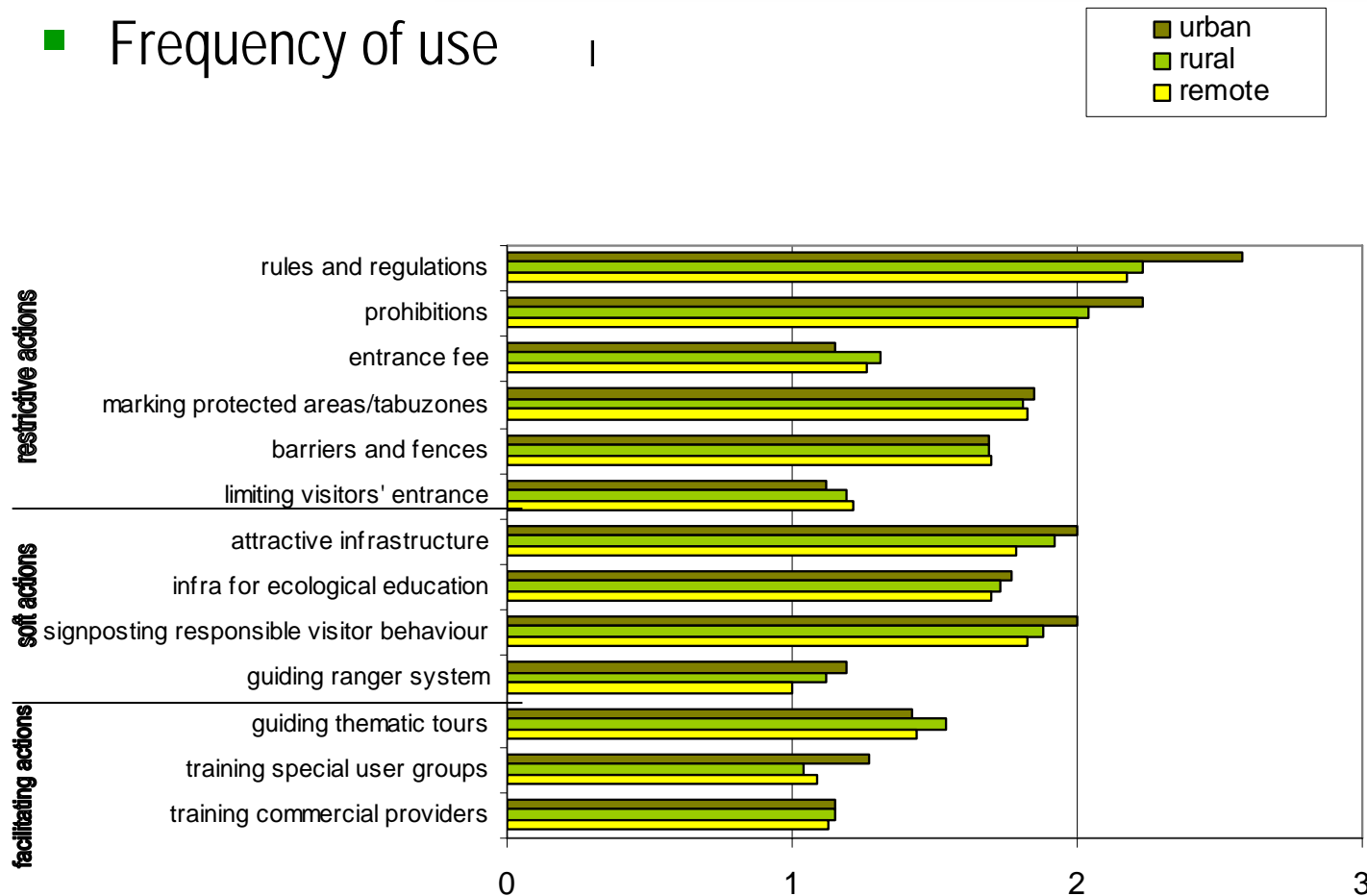
- Analysis of regional patterns



Wind turbines:  $\eta^2 = .656$  ( $p < 0.05$ ), rubbish dumping:  $\eta^2 = .778$  ( $p < 0.01$ ),  
visual problems:  $\eta^2 = 0.501$  ( $p < 0.01$ ), fire breaks:  $\eta^2 = .642$  ( $p < 0.05$ )

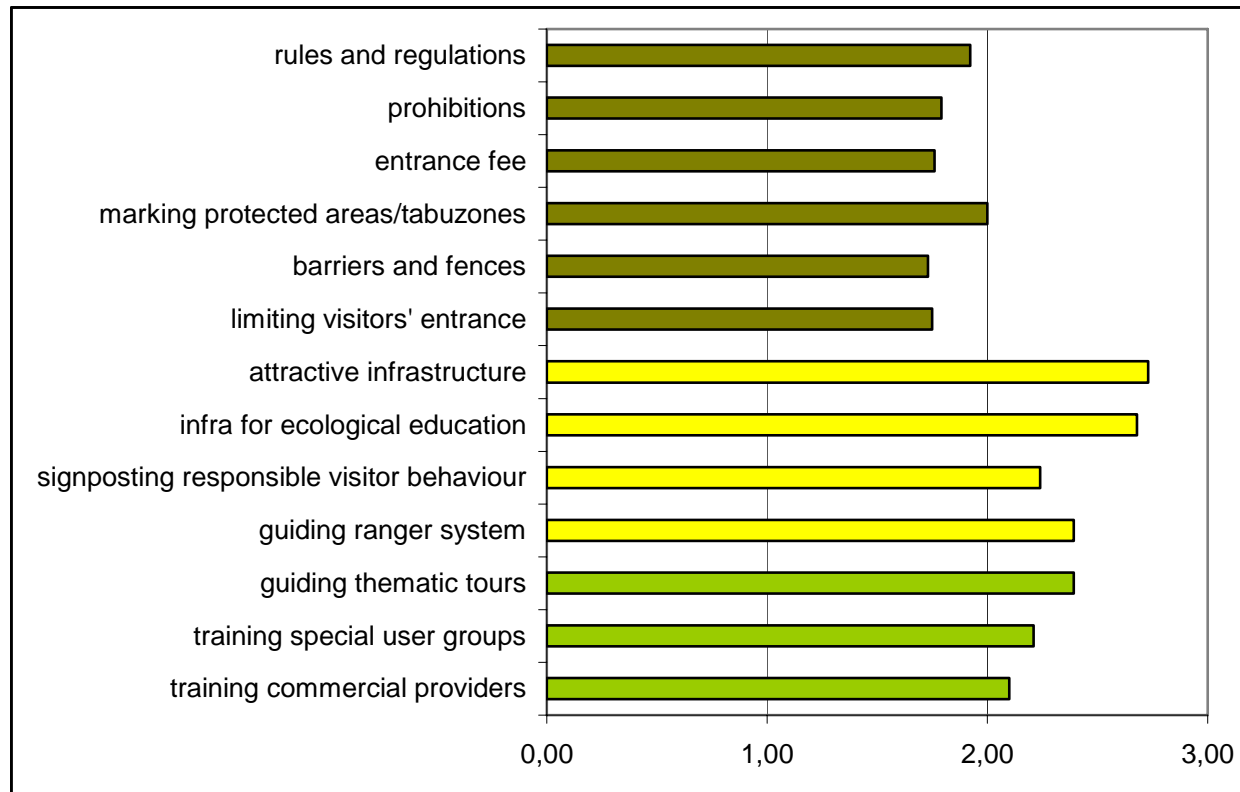
# Management

## ■ Frequency of use



# Management

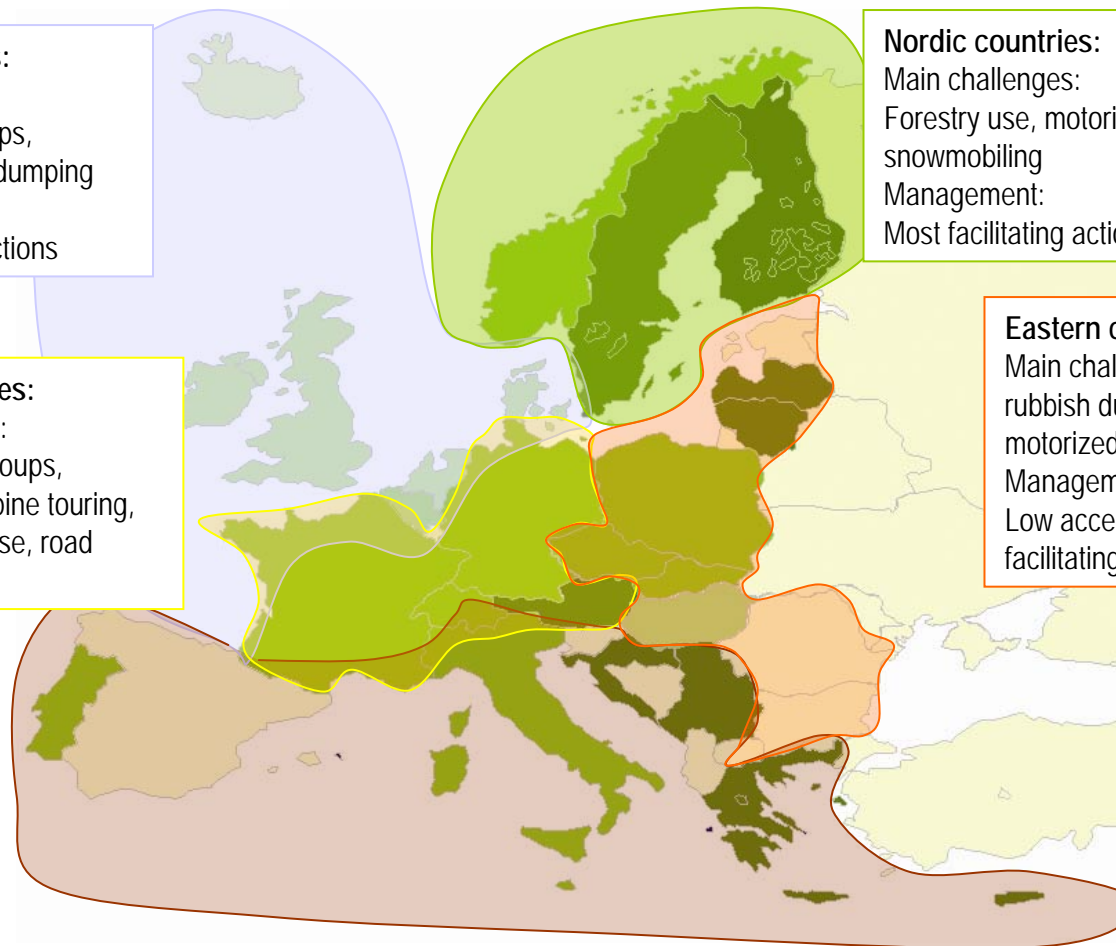
## ■ Acceptance of the different actions



# Conclusion → regional approach



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**Atlantic countries:**  
Main challenges:  
Different user groups,  
crowding, rubbish dumping  
Management:  
Many facilitating actions

**Nordic countries:**  
Main challenges:  
Forestry use, motorized sport,  
snowmobiling  
Management:  
Most facilitating actions

**Central countries:**  
Main challenges:  
Different user groups,  
hunting, mtb, alpine touring,  
skiing, traffic noise, road  
construction

**Eastern countries:**  
Main challenges: Nature conservation,  
rubbish dumping, collecting, forestry use,  
motorized sport, camping  
Management:  
Low acceptance for restrictive actions, few  
facilitating actions

**Mediterranean countries:**  
Main challenges:  
rubbish dumping, forest fires (damaged  
forests, fire breaks), picnic, hunting, forestry  
Management:  
Good acceptance for restrictive actions, few  
facilitating actions

# Outlook

- Complete results published as book in Springer Verlag, in the "Science Series"
- Pröbstl, Wirth, Elands, Bell: European Management for Recreation in Forests and Nature Based Tourism
- Planned date of issue: Spring 2008
- Good practise data base with management solutions



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