Integrating Nature and People? Drivers, obstacles, and potential of integrated forest management

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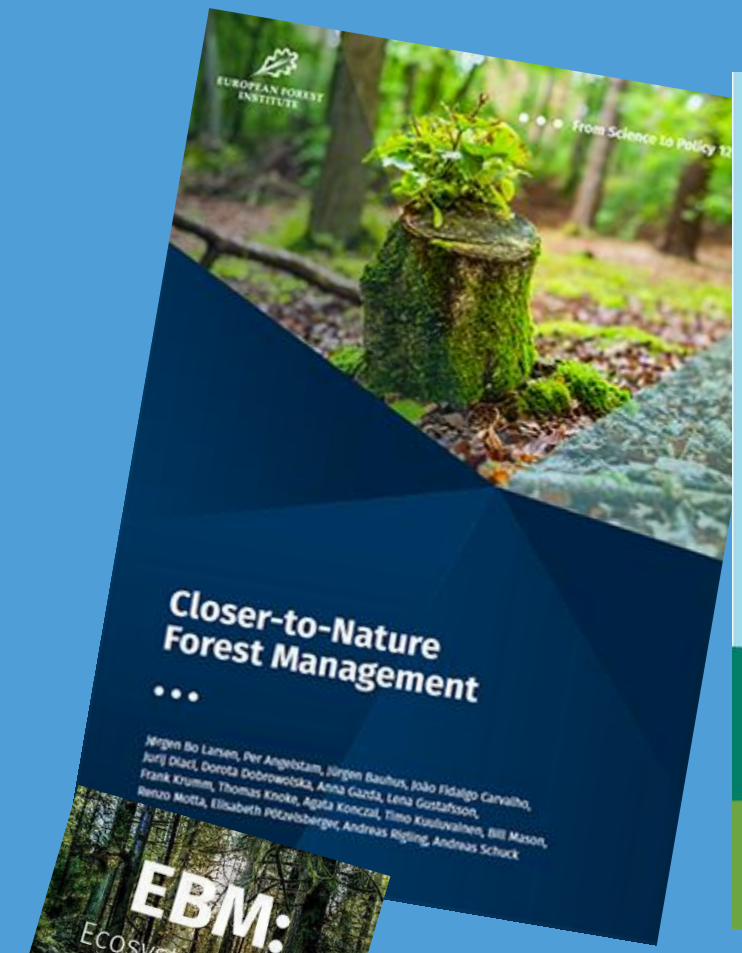
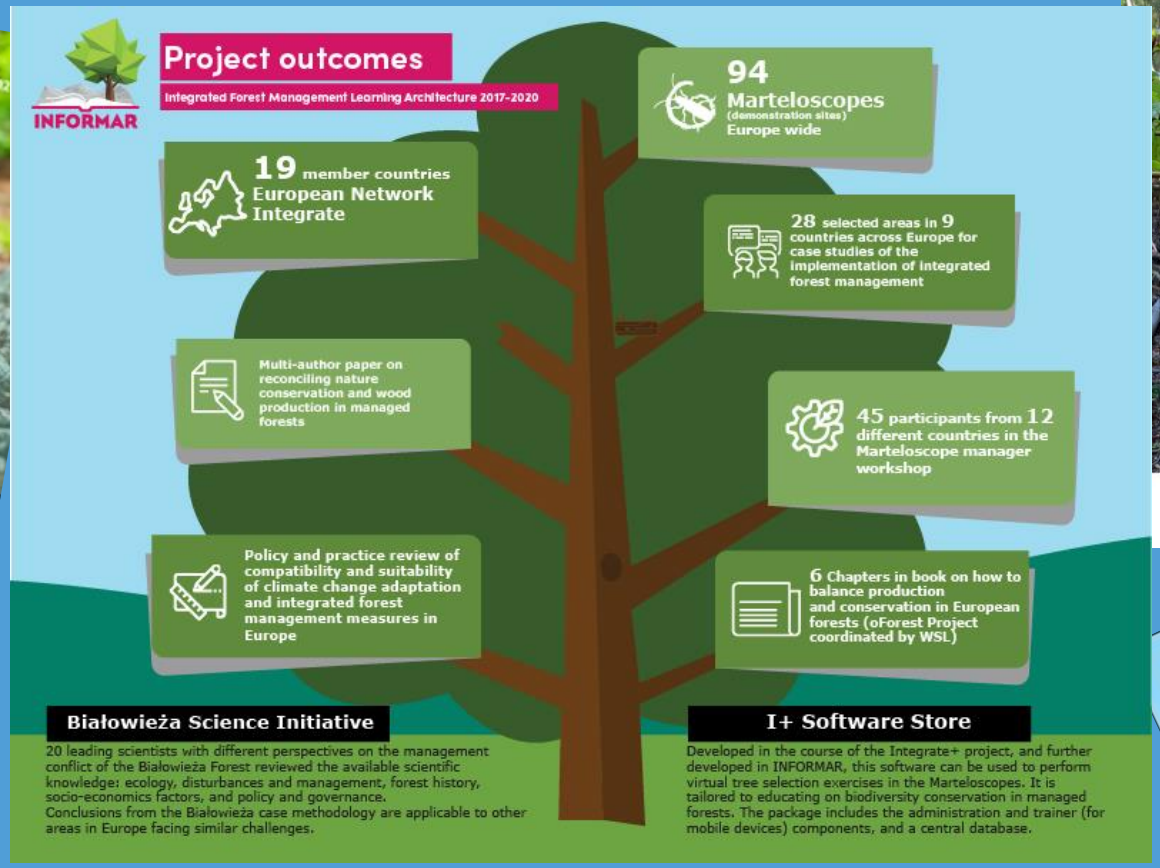
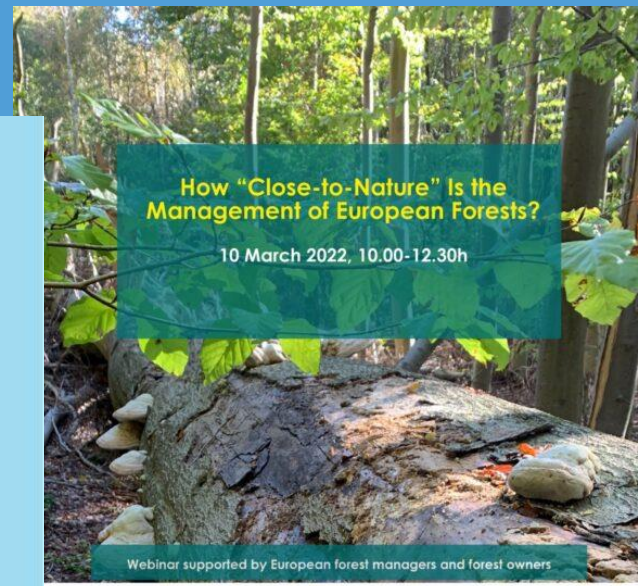
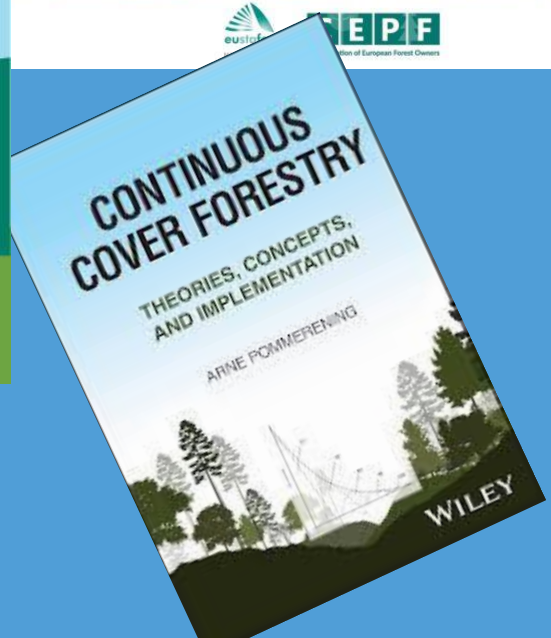
I Setting the scence for Integrated Forest Management









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100years 1918 — 2018

Introduction - setting the scence for IFM

Globally: forest landscapes in ongoing transition; key patterns: land use change, commodification, environmental concerns

Some key trends in Europe

- Societal change (urbanisation, demographic change, (political) polarization)
- Economic change (green transition)
- Climate change (increasing uncertainty, shocks)
- Technological change (mechanisation, transparency)

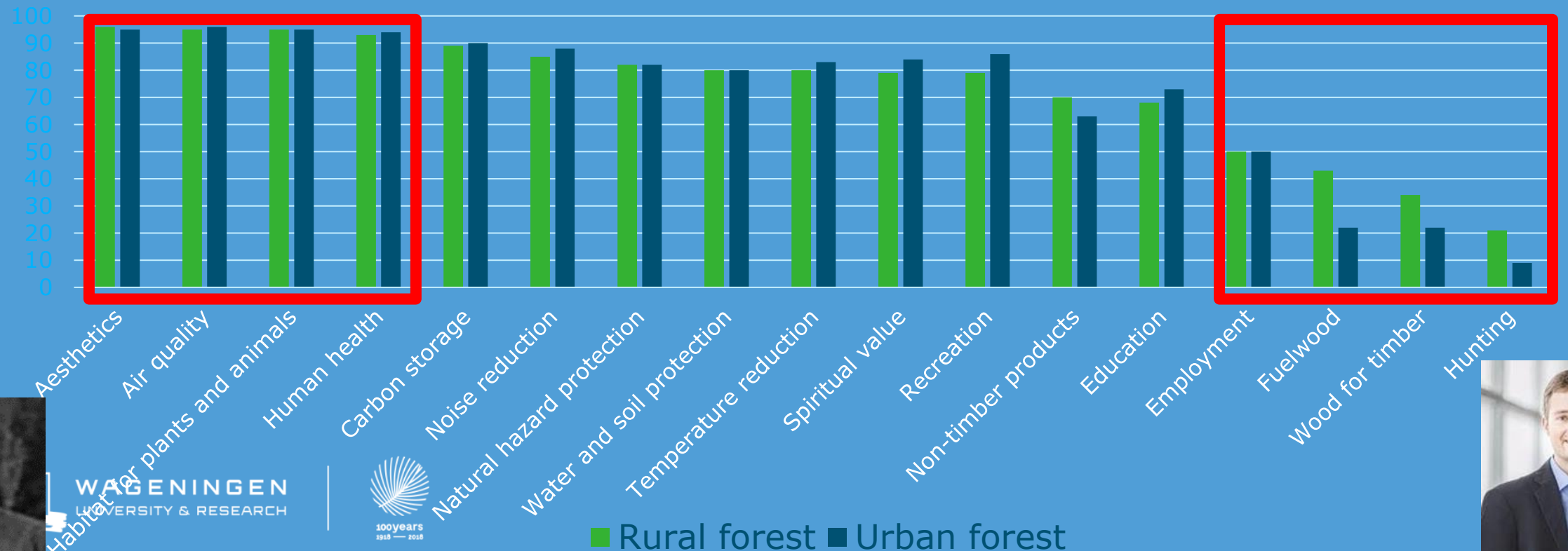
→ These factors form the (political) environment of “Integrated forest management”

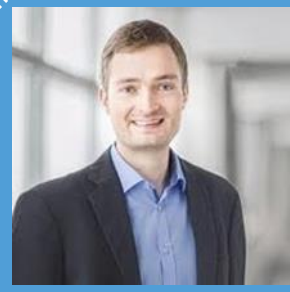
Example 1: Societal perceptions of forests - “demand” for forest ecosystem services (FES) in Europe

European Household Survey on societal preferences towards forests (H 2020 “Clearing House” project data, Roitsch et al in prep., Winkel et al. 2023)

How important are the following benefits of this forest to you (in reference to a specific forest)?

Scale: 0=Not important, 100=Very much important, N total 13319 responses in 33 countries (here N urban forests 3362; N rural forests 3631)





The Beauty of Landscape … lies in the eyes of the beholder

Question: Which of the following landscapes do you find most attractive? (Derks et al., in prep.)

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

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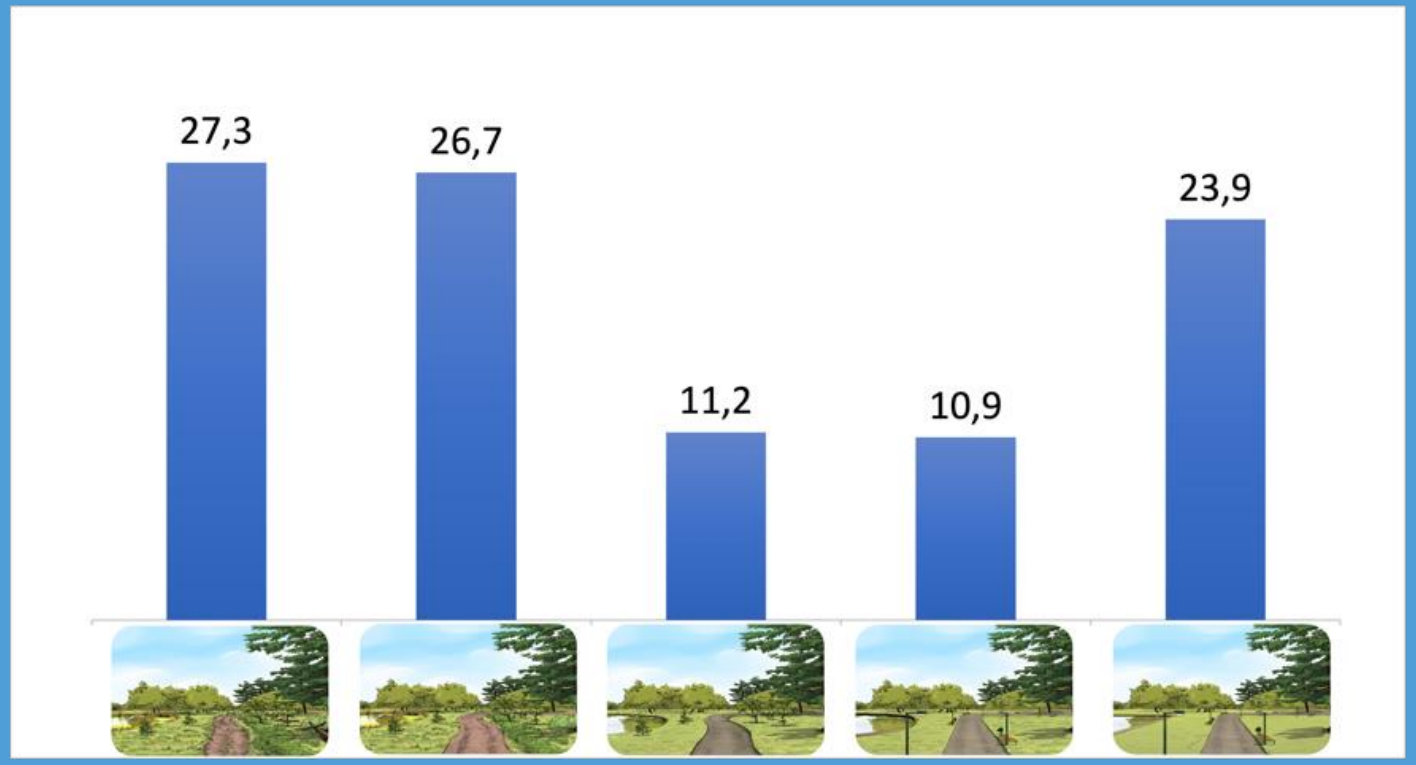
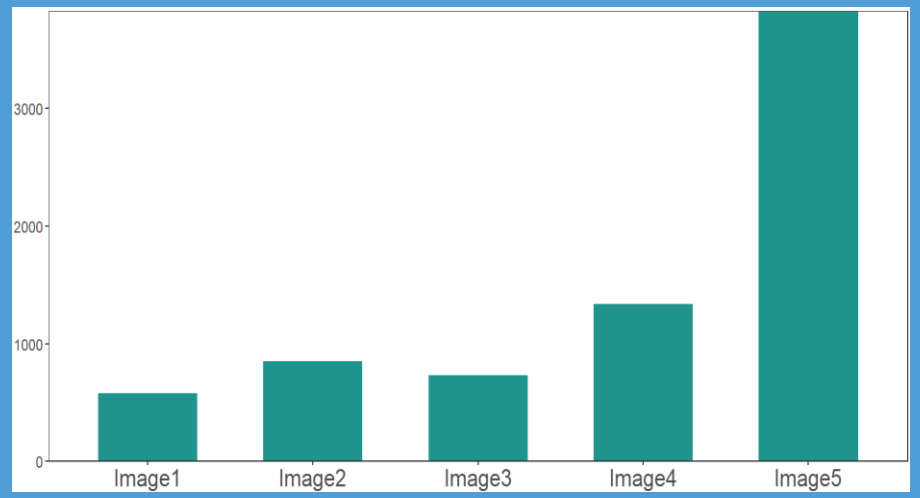
Attractiveness of (forest) landscapes differs – within Europe and across continents

"From the 5 pictures below, please select the landscape which you find most attractive"



Europe (N= 10,391)



China (N= 7,353)

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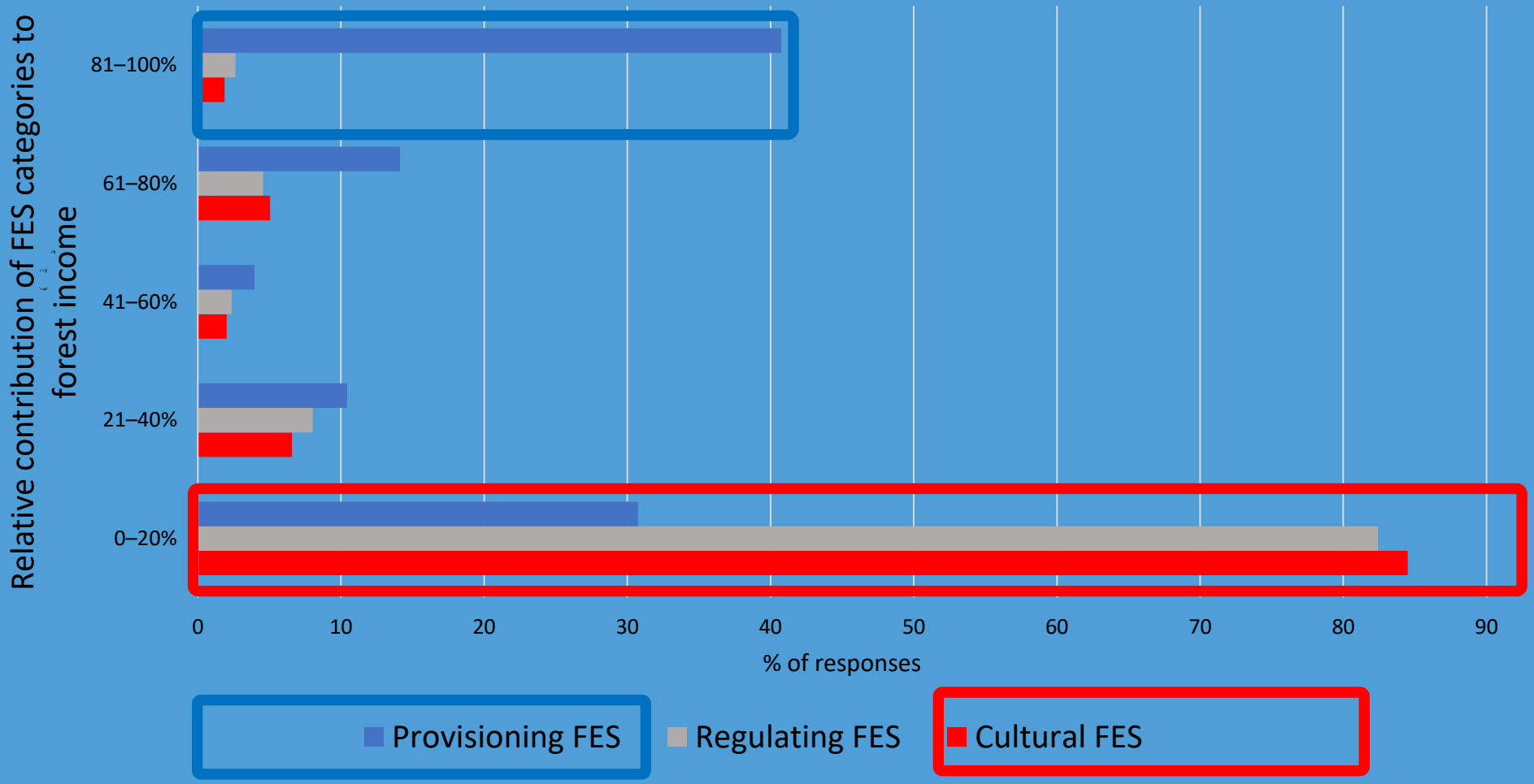
And the supply side? Income contribution of FES



"**Supply**": Relative importance of income from provisioning, regulating and cultural FES – as reported by 1707 surveyed European forest owners and managers (SINCERE H2020 project, Torralba et al. 2020, Lovric et al. in prep)

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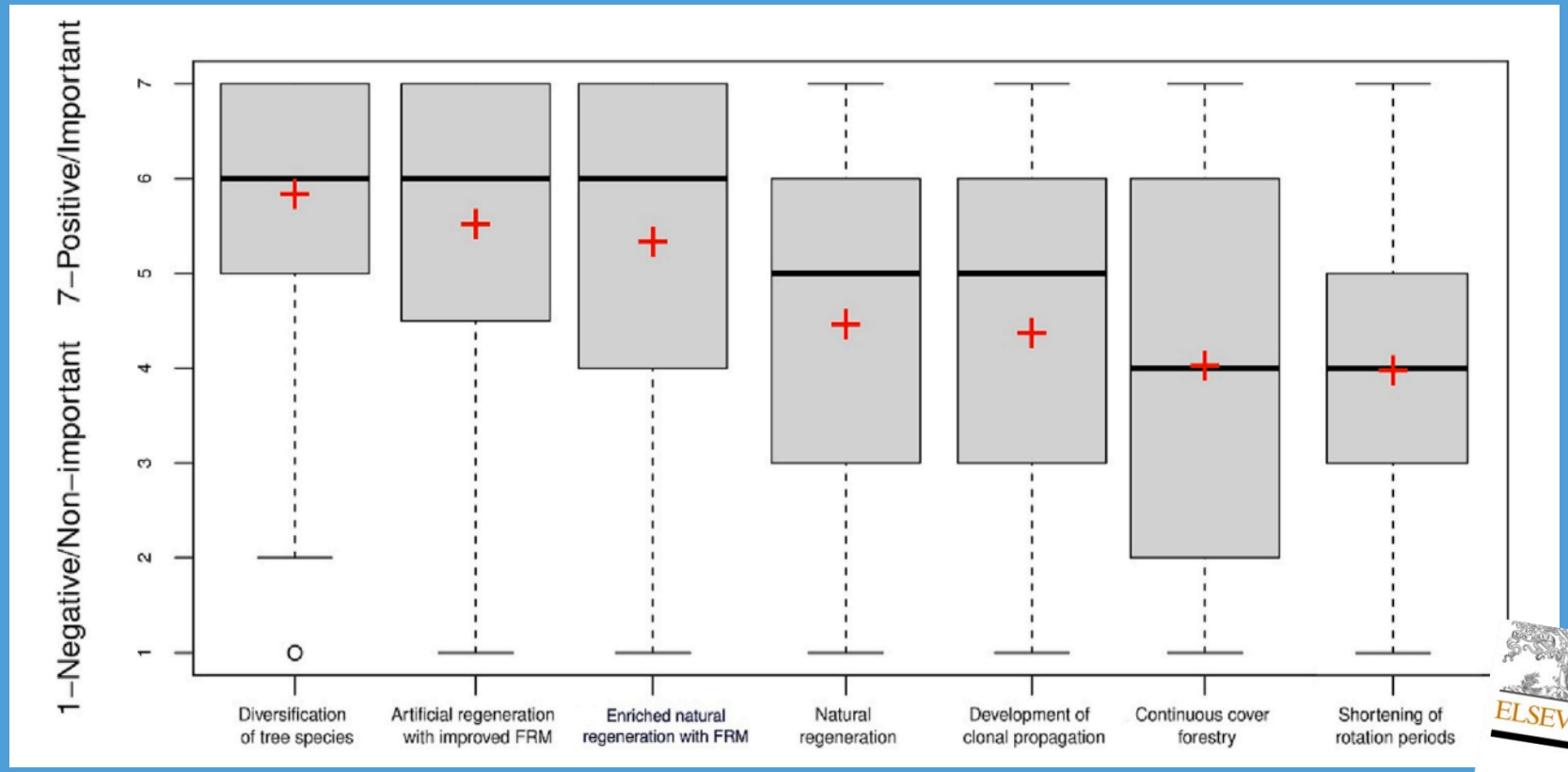
Example 2: Antipoles in (EU) forest policy…

Forestry & Wood	***Dimension***	**Nature Conservation**
Renewable natural resource	***View of Forest***	Ecosystem with irreplicable biodiversity
Bioeconomy, sustained timber use	***Major policy goals***	Nature, conserve biodiversity
Sustainable forest management	***Resource management paradigm***	Conservation & "closer to nature forestry"
Support forest producers; market governance, incentives for ecosystem services	***Main policy focus***	Protect forests, regulation, incentives for ecosystem services
DG Agri, forest rich member states (FIN, AUT, SWE), Forestry NGOs and forest departments	***Actors***	DG Env, forest poor / urbanized member states (NL, DK, BEL) Env. NGOs, Env. departments

Source: Winkel & Sotirov, 2016; Sotirov et al., 2021, adapted

Example 3: Perceptions of climate change

Evaluation of adaptation strategies by forest practitioners and experts (Roitsch et al, 2023; 539 responses in 9 European countries, H2020 project B4EST)




ELSEVIER
Forest Policy and Economics
journal homepage: www.elsevier.com/locate/forpol

Close-to-nature forestry and intensive forestry – Two response patterns o
forestry professionals towards climate change adaptation

Dennis Roitsch [a,d,*], Silvia Abruscato [a], Marko Lovrić [b], Marcus Lindner [a], Christophe Orazio [c],
Georg Winkel [d]

Example 3: Perceptions of climate change

Evaluation of the effects of climate change on forests and forestry today and expected until 2050 (Roitsch et al, 2023)

		Total (n=1)	$\bar{x}$ today	$\bar{x}$ in 2050
1	Finland	32	4.25	4.41
2	Norway	38	4.10	4.03
3	Sweden	16	3.75	3.69
4	United Kingdom	20	3.65	3.30
5	France	93	3.16	2.74
6	Italy	61	2.73	2.67
7	Portugal	14	2.71	2.71
8	Germany	236	2.64	2.47
9	Spain	29	2.39	2.31
	Total	**539**	**2.91**	**2.83**

Legend:

- 1 = Very negative
- 4 = Balance between negative and positive
- 7 = Very positive

- No effects observed/no changes expected: 14 for today, 11 for 2050.

Summary Part I

- The (socio-economic, political and ecological) environment of forest management is changing (but some well-known patterns do continue)
- There is a potential mismatch between societal demands for forest nature and the economics of forest production
- Different views on forests and their management do not abate under conditions of climate change

→ What does the mean for integrated forest management?

II Elements and Drivers of Integrated Forest Managenemt

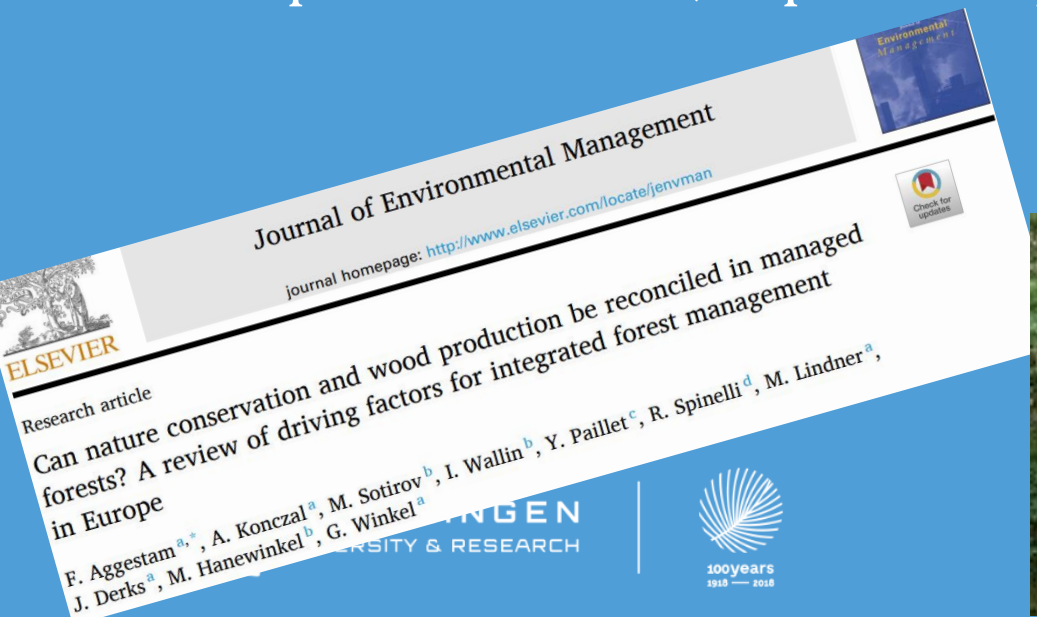
Elements and Drivers – Findings from the INFORMAR project

- Q1: How do forest managers and experts understand and practice the integration of nature conservation into forest management in different contexts in Europe?
- Q2: What is facilitating and what is impeding the integration of nature conservation measures into forest management?

INFORMAR

Funded by BMEL

Methods: 28 ”cases”; 42 qualitative interviews with forest practitioners and experts in 9 European countries; separate expert workshop



[What foresters want - Resilience Blog (resilience-blog.com)]

Findings 1: Measures to integrate nature conservation

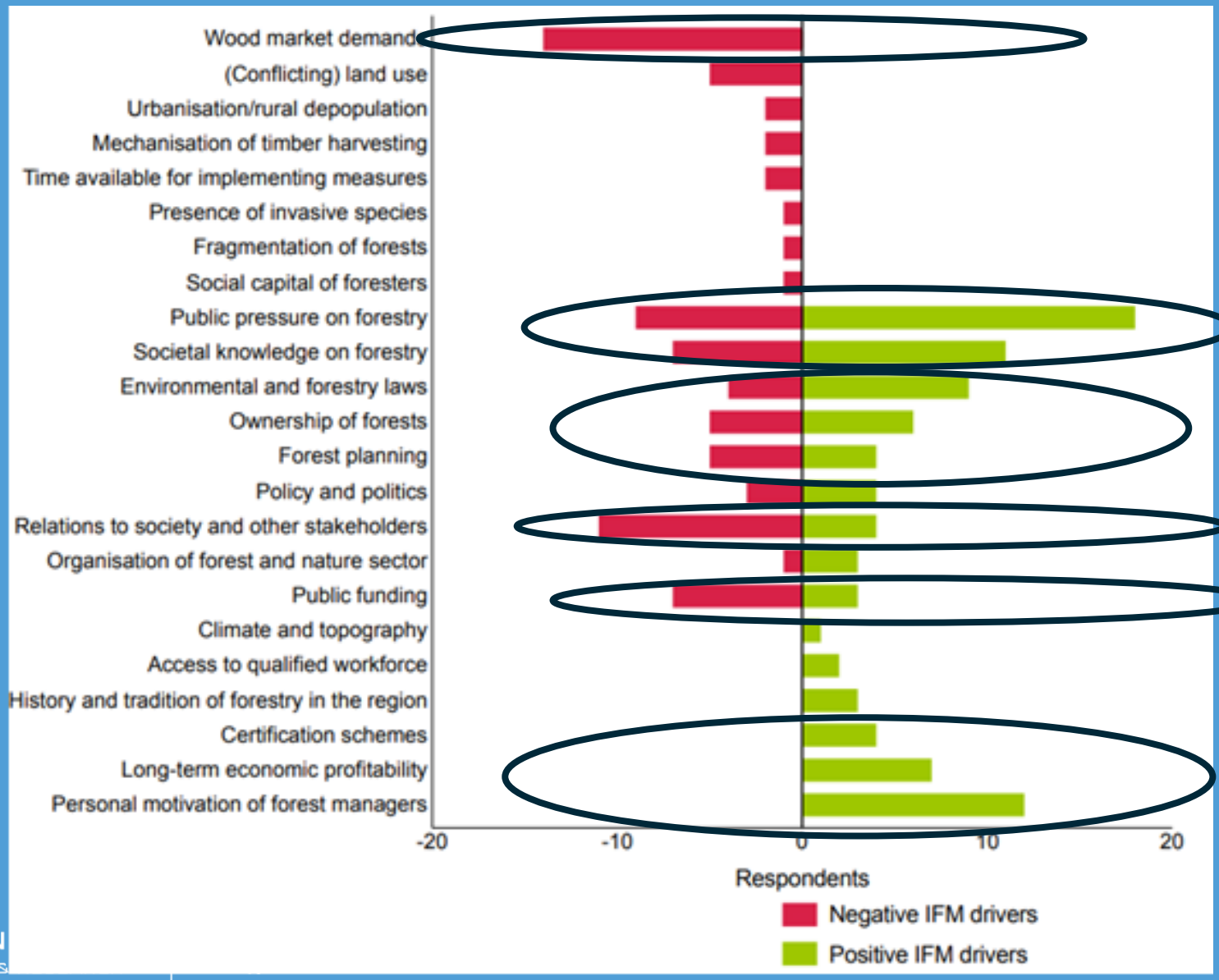
→ Very diverse picture (Konzcal et al. 2023)

Table 3

Summary of responses to the open-ended question: *What are the* 3 most *important measures that are taken with respect to nature conservation?*

Nature conservation measure	Number of respondents	Percentage of respondents
Leaving deadwood and habitat trees	27	64%
Setting small areas aside	19	45%
Protecting soil and water	11	26%
Adjusting tree species composition[a]	10	24%
Protecting specific species	10	24%
Changing cutting regime	7	17%
Changing stand structure[b]	5	12%
Improving knowledge on conservation	5	12%
Supporting natural regeneration	3	7%
Supporting traditional land use practices	2	5%
Restoring ecosystems	1	2%
Obtaining certification	1	2%
Prescribed burning	1	2%
Improving forest planning	1	2%

Findings 2: Enabling and impeding factors for IFM (drivers)



These findings mirror the results of a larger survey conducted in Germany some year earlier…

Project *"Naturschutz im Landeswald"* (Funded by BfN/BMU, 2013-2017; Partners: Uni Freiburg, NW-FVA; Uni Frankfurt, EFI)

Here: research Carolin Maier (Maier & Winkel, 2017)

→ *How do **local forest managers** (RevierleiterInnen) **perceive integrating nature conservation** in managed forests?*

→ *What is **influencing their management decisions** related to nature conservation?*

Methods: 30 in-depth interviews followed by a survey with 354 responses

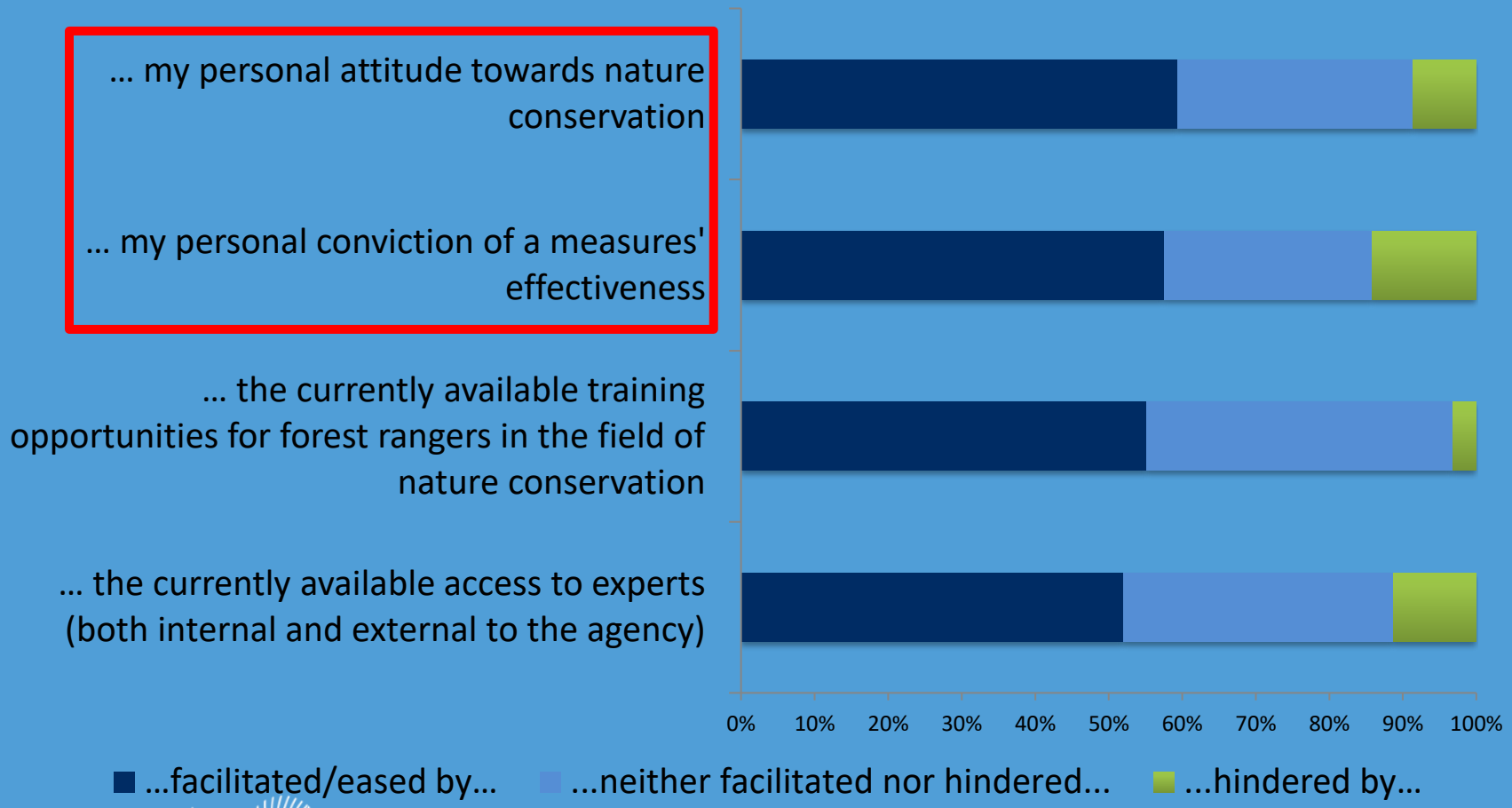
Findings 3: IFM in Germany (ctd.)

- Overall strong support for (integrative) biodiversity conservation
- Less clear findings on what this means for forest management practices

„My heart beats for nature. I became a forester because of my interest in nature! “

Findings 3: IFM in Germany

The implementation of nature conservation measures is facilitated/hindered by…



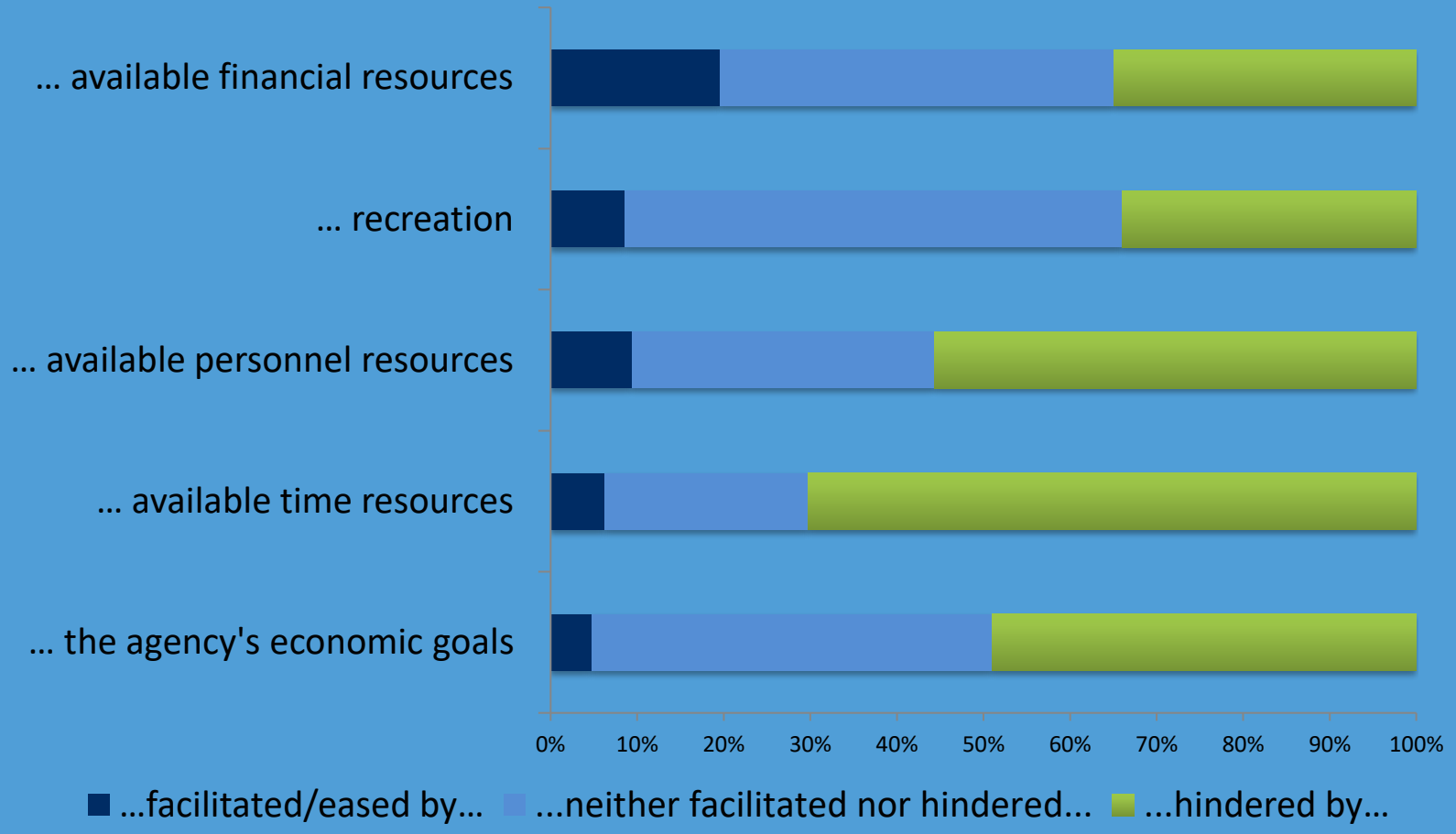
Findings 3: IFM in Germany (ctd.)

- Forest rangers do further report on critical factors hindring IFM implementation

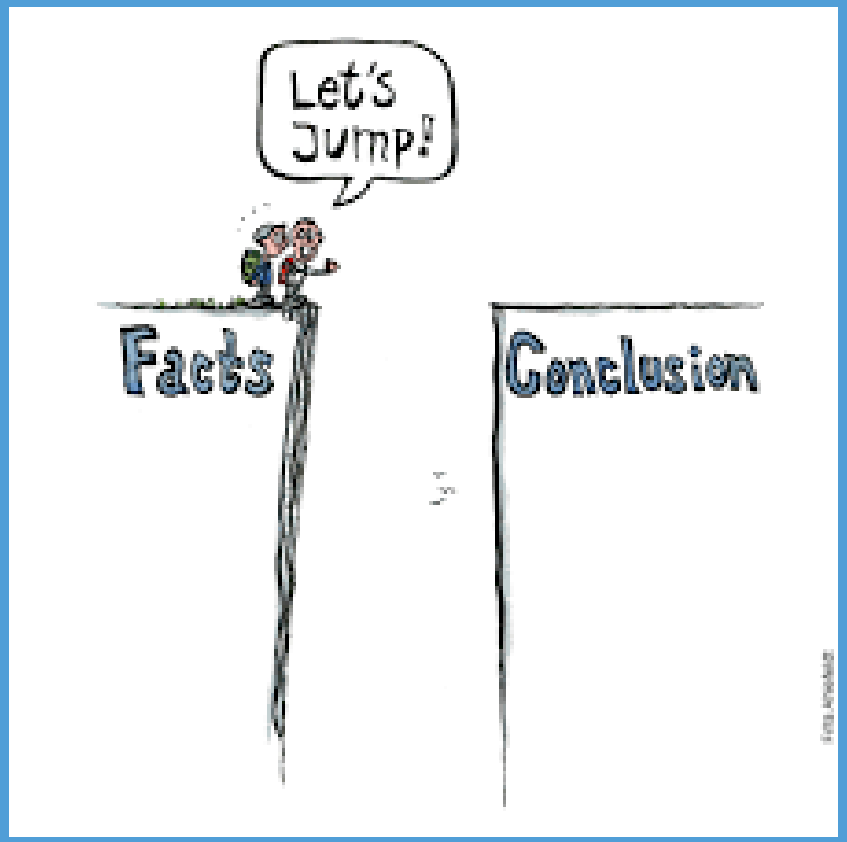
„I would like to complete these nature conservation tasks, but the problem is, I still have to meet my timber targets. (...) So time is really the problem.“

Findings 3: IFM in Germany (ctd.)

The implementation of nature conservation measures is facilitated/hindered by…



III Conclusions



Conclusions

Integrated forest management holds the promise of a win-win land management approach as…

- it allows using synergies between forestry production and conservation
- it can better connect forestry to societal demands
- it can be based on existing motivations and experience of forest managers

Conclusions (ctd.)

But the potential of IFM can only unfold if…

- its measures and contents are clearly elaborated
- its political function moves from defending forestry to reforming forestry
- its implementation and impacts are transparently monitored
- obstacles to implementation are assessed and a supportive policy framework is in place

Thank you very much/merci

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