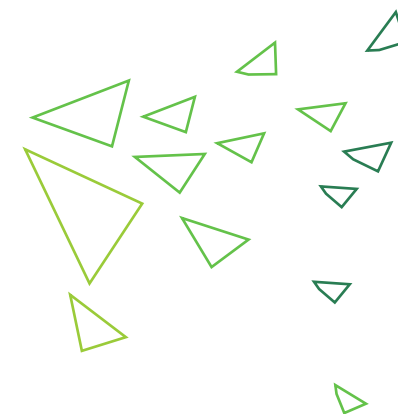**ValoFor**
ForestValue

ValoFor: Small Forests - Big Players

Dr. Silvio Schüler, Austrian Research Centre for Forests, Vienna

About ValoFor

Goal: To understand the contribution of small forest owners in the transition to a wood based bio-economy by considering the perception and management strategies of small forest owners.

Valorising small scale forestry for a bio-based economy

The project will assess small forest owners from southern to northern European forests in Austria, Germany, Sweden, Finland and Slovenia.

ValoFor
ForestValue

Project partners

Austrian Research Centre for Forests

BFW

Lead Partner

Austria

Johann Heinrich von Thünen Institute

TI

Project partner

Germany

Umeå University

UU

Project partner

Sweden

Natural Resources Institute Finland
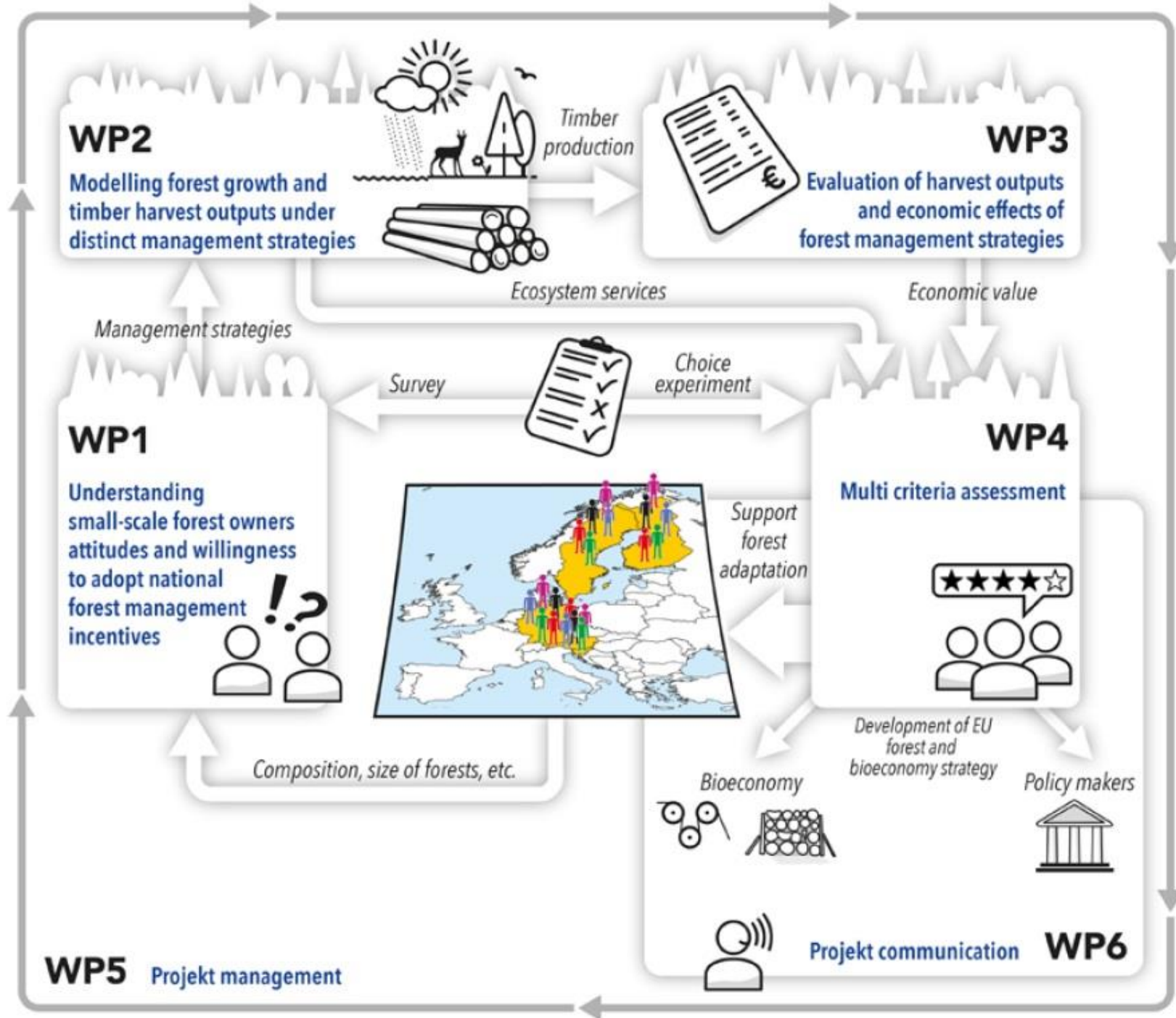
LUKE

Project partner

Finland

Slovenian Forest Institute

SFI

Project partner

Slovenia

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives

Survey and choice experiment have been designed and released in spring 2020 to small forest owners in all 5 countries

Questions about your forest holding

16. How large is your total owned forest area, including what you co-own?
_____ hectares

17. Is your forest property/-s certified (give national examples)? (Optional. Not valid for Austria, only partly valid for Germany, In Finland should ask FSC or PEFC if we keep this question, but maybe better to skip)
    1 ☐ Yes
    2 ☐ No
    3 ☐ I don't know

18. Do you have a formal up-to-date forest management plan (national example)? Optional and formulate different in each country
    1 ☐ Yes
    2 ☐ No
    3 ☐ I don't know

19. How much subsidies have you received over the last five years? _____ Euro

Survey with 28 questions

7. What if the forest management strategies and their effects of alternatives A, B and C were the following, which alternative would you choose? Tick one of the circles.

CHOICE SET 1	Alternative A	Alternative B	Alternative C
Management strategy	Conventional management (no contract)	Nature Oriented (15-year contract)	Timber Oriented (15-year contract)
Profitability (without additional subsidy)	Current level	Decrease 20%	Current level
Biodiversity	Current level	Increase	Decrease
Carbon stock	Current level	Current level	Decrease
Probability of climate change induced damages	Current level	Increase	Decrease
Additional subsidy (lump sum payment, €/hectare)	0	300	750
My choice is:	⓪	⓪	⓪

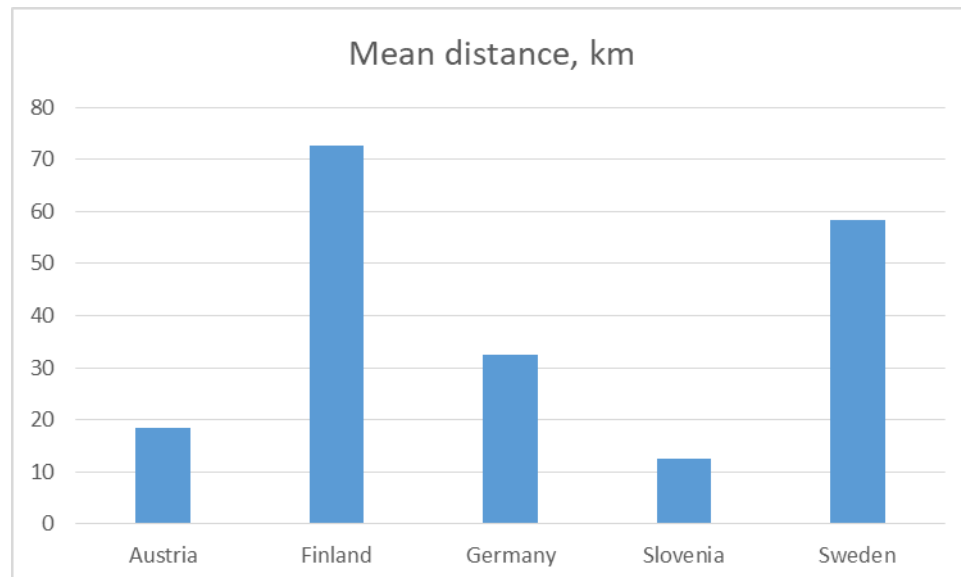Choice experiment with 3 management strategies and 8 questions
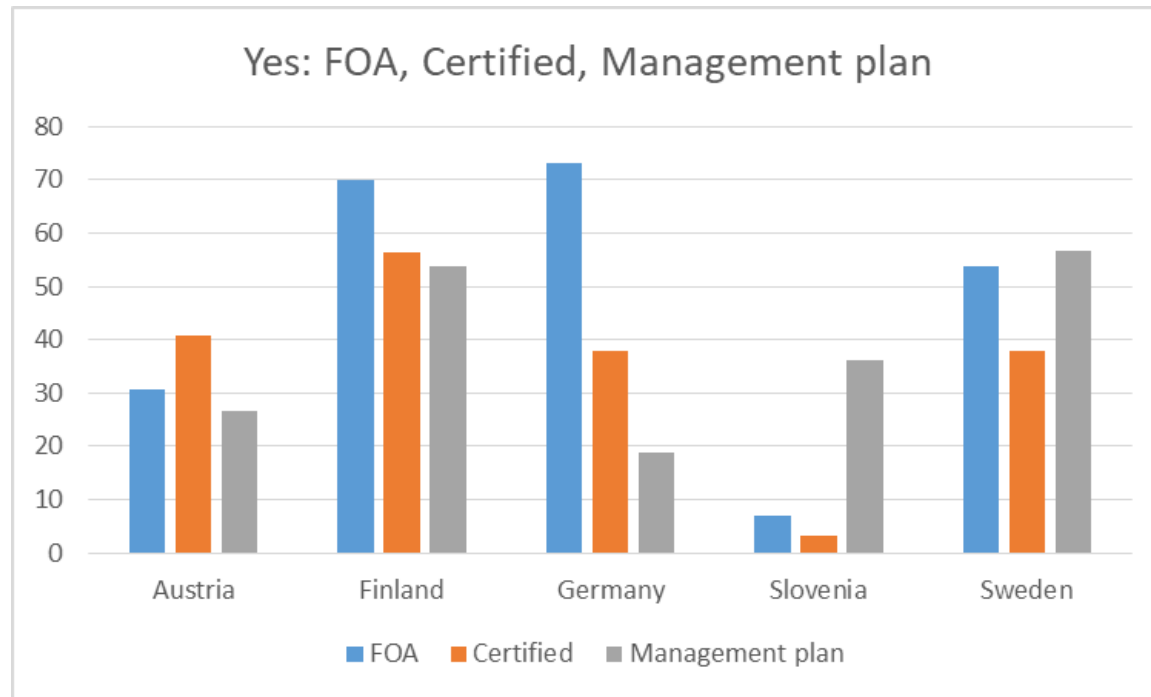
stValue

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives

First results

Country	No. of obs	Men (%)	Owner's age (mean)	Hectares (mean)	Hectares (median)
Austria	300	86.0%	50,1	29,1	10
Finland	942	76,3	64,1	55,5	25
Germany	307	89	48,6	112	4,5
Slovenia	323	70,7	53,8	13	5
Sweden	652	76,5	65,1	91,7	42

300 responses were required as minimum

Mean distance, km

Mean distance to holding
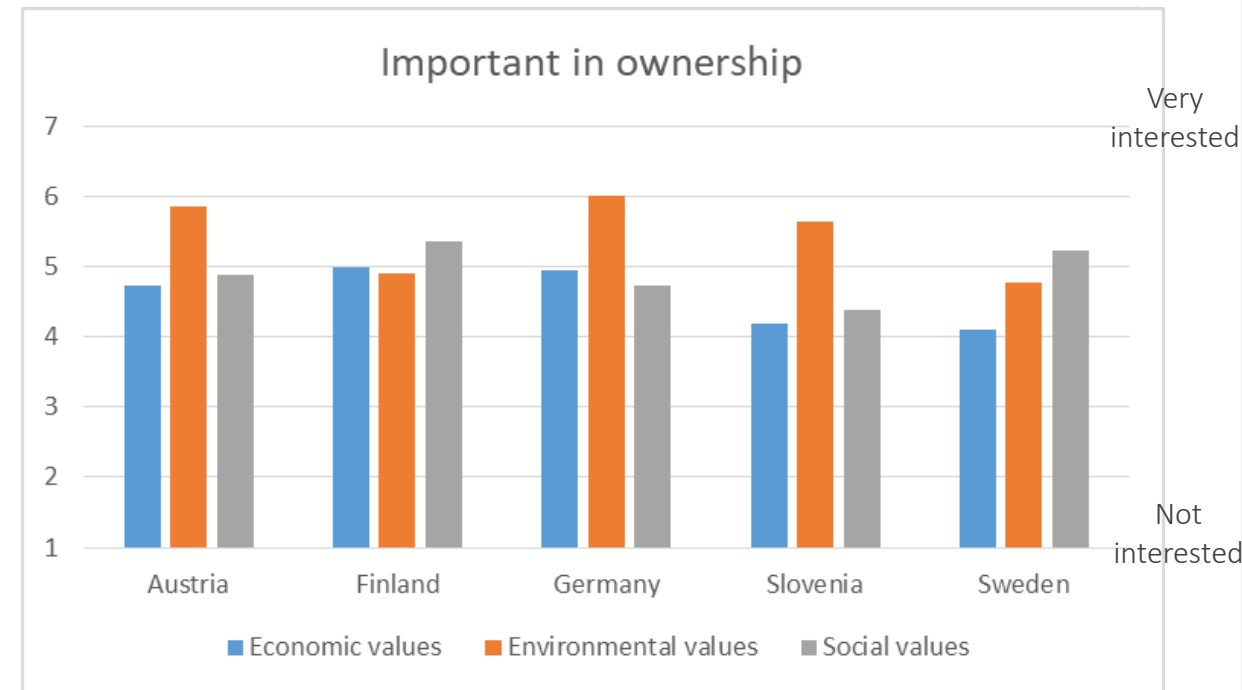
ValoFor
ForestValue

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives

First results

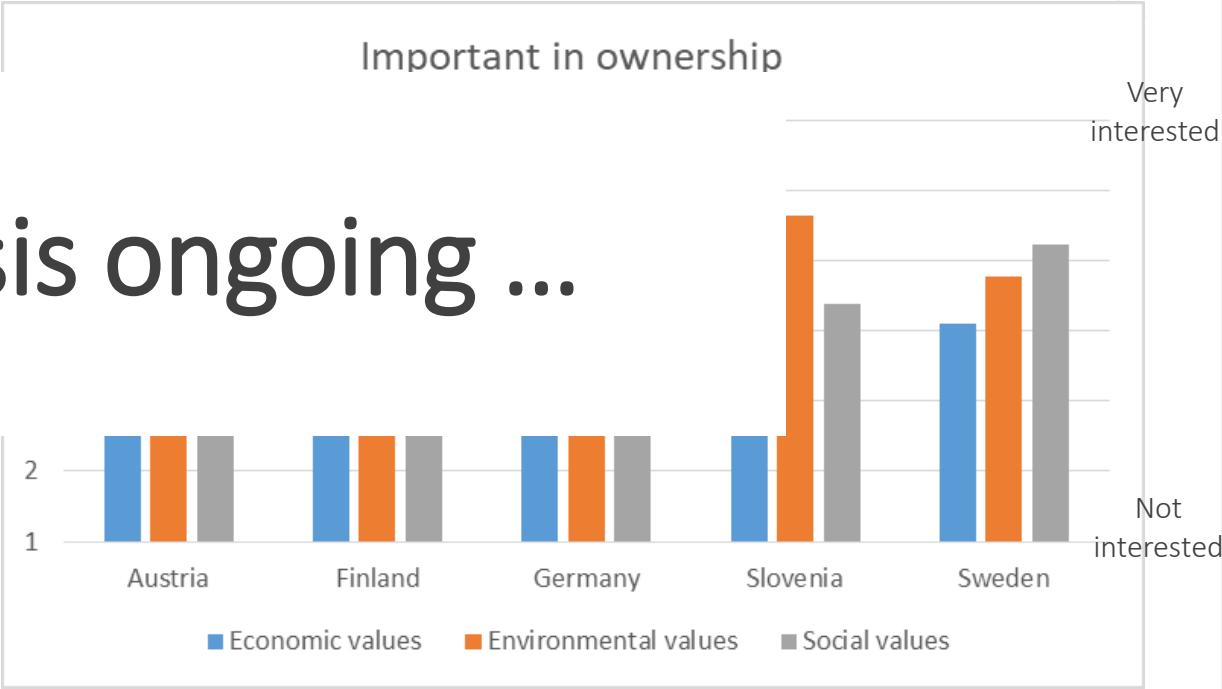Certified, FOA member, management plan

Important in ownership (Question 24)

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives

First results

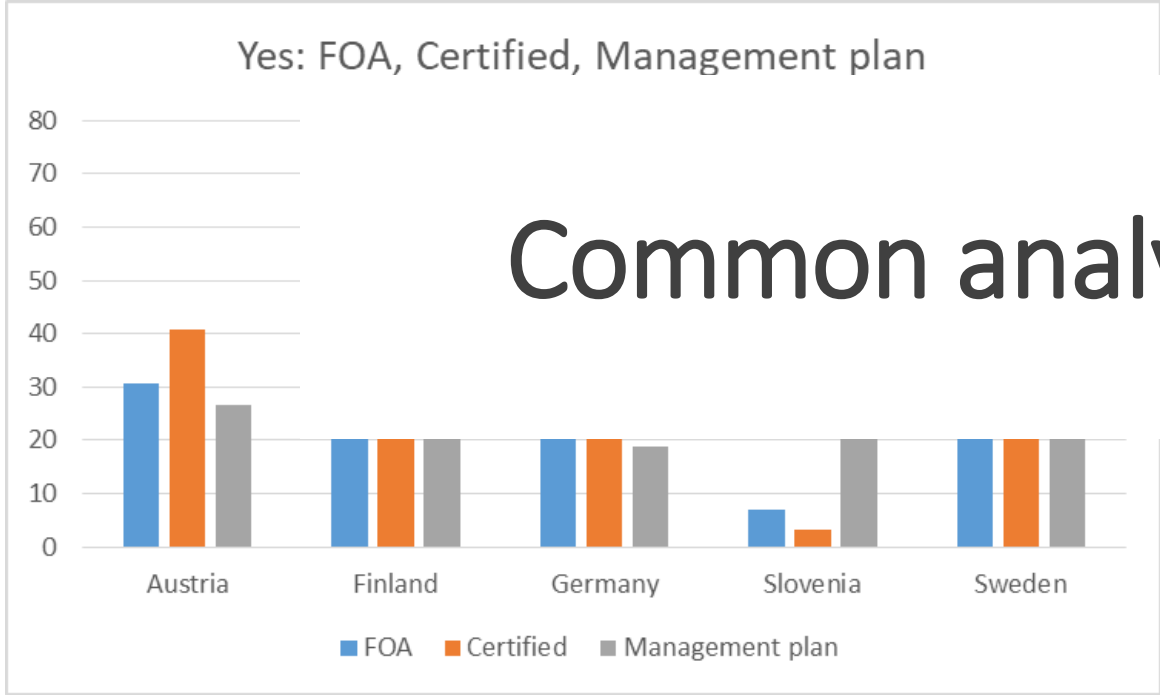Certified, FOA member, management plan

Important in ownership (Question 24)

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives

National/European subsidy systems as driver of management activities??

➜ Comparison among countries using data of the EU Rural development programme!

Three main questions:

- What gets funded?
  Similarities between countries, country specific measures
  (… and by whom: national vs. federal state funds?)

- Who gets funded?
  Subsidies per size-class, differences between countries?

- Relationship between size-classes and funded measures?

ValoFor
ForestValue

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives
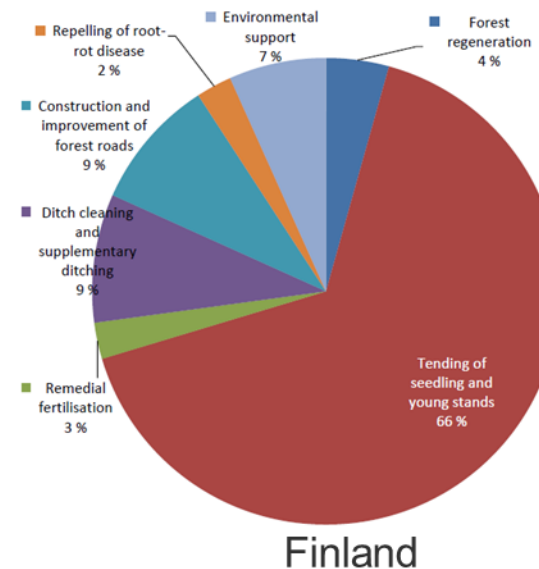
National/European subsidy systems as driver of management activities??

➔ Comparison among countries using data of the EU Rural development programme!

Categorizing measures into 3 broad categories:

- Ecological forestry, nature conservation and cultural heritage
- Enhancement of timber supply and investment to increase forest stand value
- Research and education

What gets funded?

Austria

Finland

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives
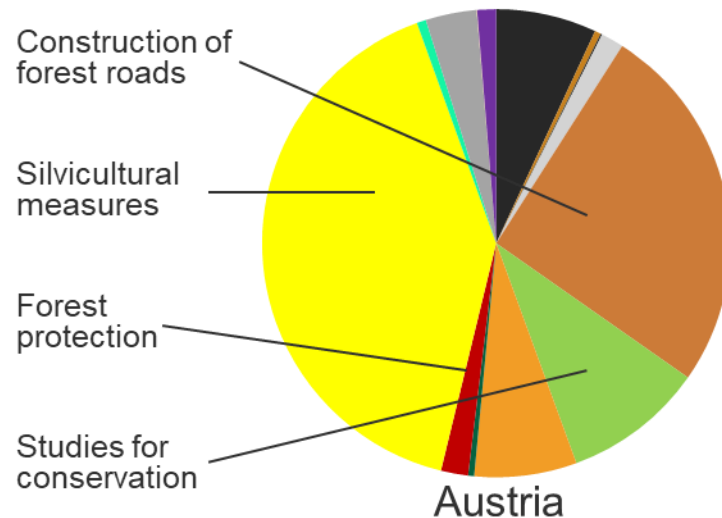
National/European subsidy systems as driver of management activities??

➔ Comparison among countries using data of the EU Rural development programme!

What gets funded?

Example from Austria:

- Categorization of the different measures allows for calculation of 'investment per ha' for each of the three categories

0.97 €/ha
8.33€/ha
17.07 €/ha

■ Ecological forestry, nature conservation and cultural heritage

■ Enhancement of timber supply and investment to increase forest stand value

■ Research and education

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives
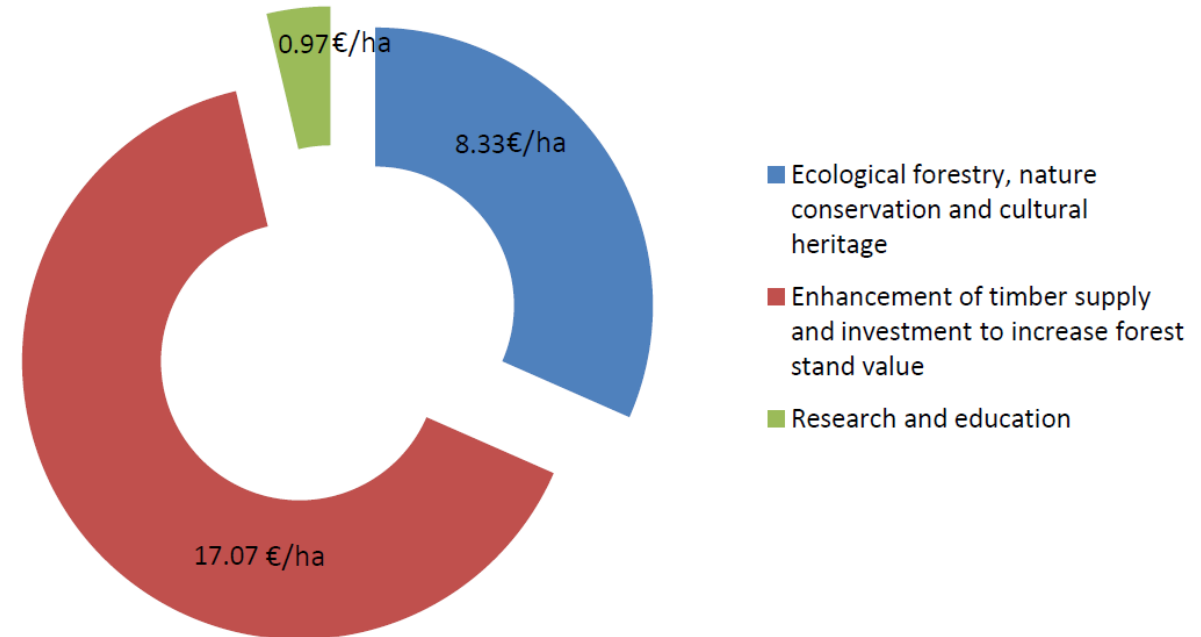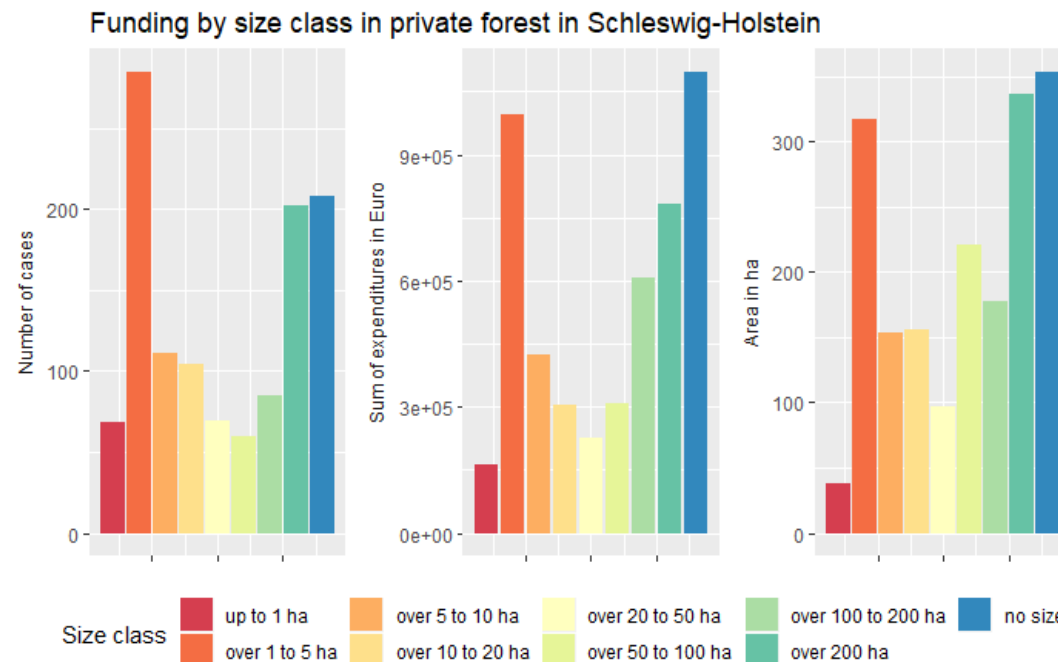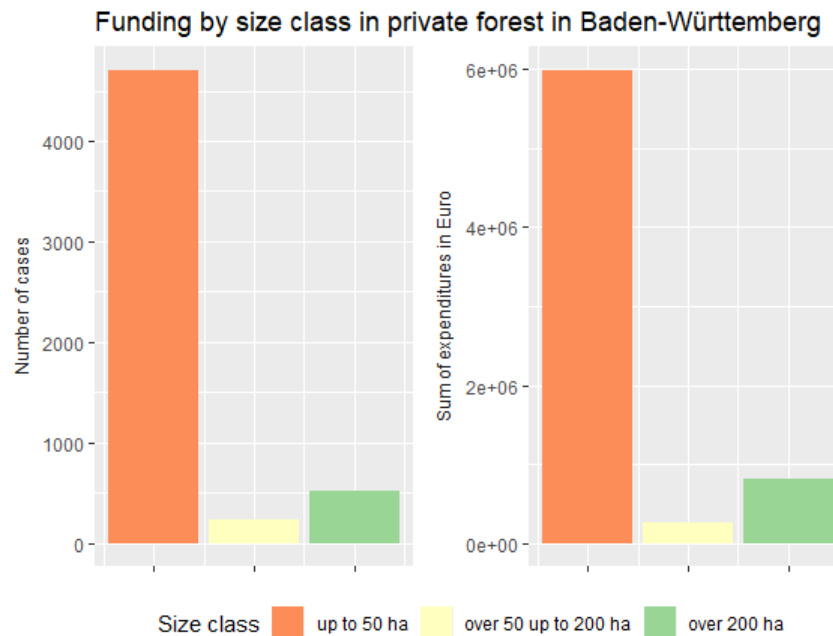
National/European subsidy systems as driver of management activities??

➔ Comparison among countries using data of the EU Rural development programme!

Who gets funded?

Subsidies per size-class

Funding by size class in private forest in Baden-Württemberg

Size class: ■ up to 50 ha   ■ over 50 up to 200 ha   ■ over 200 ha

Funding by size class in private forest in Schleswig-Holstein

Size class:
■ up to 1 ha   ■ over 5 to 10 ha   ■ over 20 to 50 ha   ■ over 100 to 200 ha   ■ no size
■ over 1 to 5 ha   ■ over 10 to 20 ha   ■ over 50 to 100 ha   ■ over 200 ha

Example: 2 Länder in Germany

ValoFor
ForestValue

12

WP1: Understanding small-scale forest owners attitudes and willingness to adopt national forest management incentives
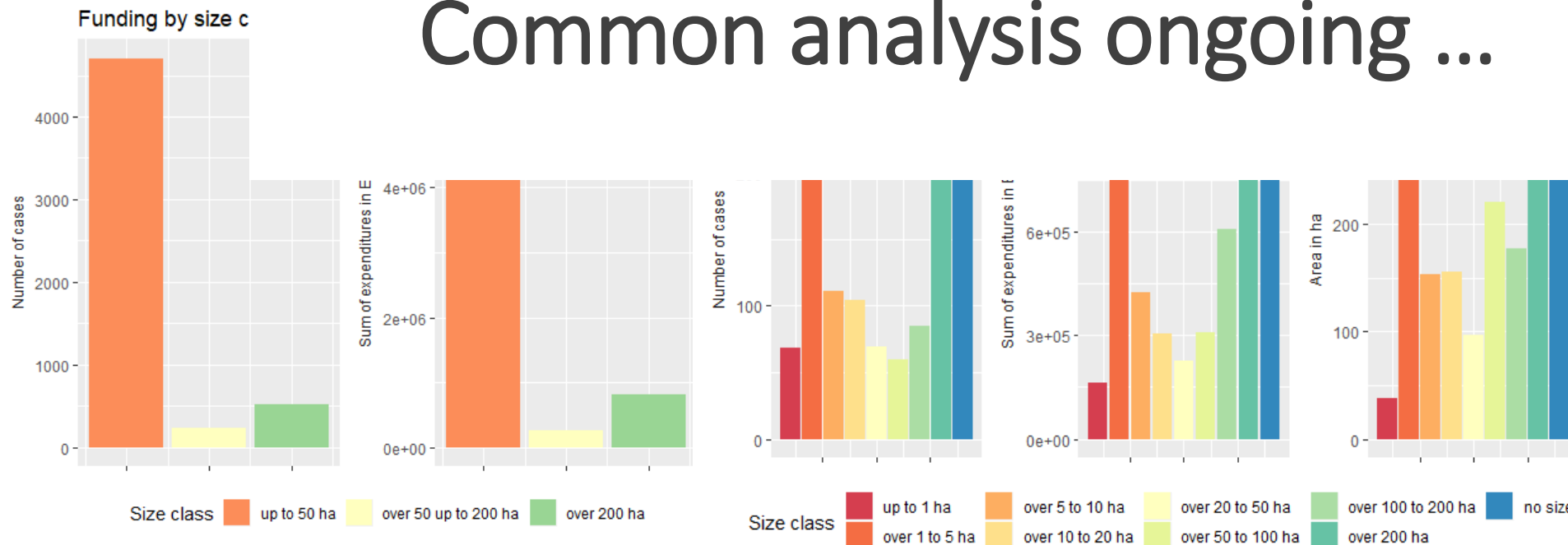
National/European subsidy systems as driver of management activities??

➜ Comparison among countries using data of the EU Rural development programme!

Who ge

Common analysis ongoing ...

Funding by size c

Size class ■ up to 50 ha □ over 50 up to 200 ha ■ over 200 ha

Size class
- ■ up to 1 ha
- ■ over 1 to 5 ha
- ■ over 5 to 10 ha
- ■ over 10 to 20 ha
- □ over 20 to 50 ha
- ■ over 50 to 100 ha
- ■ over 100 to 200 ha
- ■ over 200 ha
- ■ no size

Example: 2 Länder in Germany

ValoFor
ForestValue

13

WP2: Modelling forest growth and timber harvest outputs under distinct management strategies
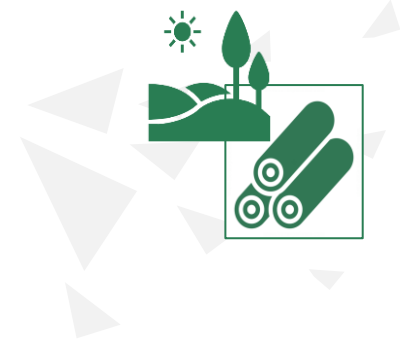
Definition of three (+1) strategies of forest management:

1. Close-to-nature forestry ("low")

2. Increasing profitability of wood productions and response to enhanced wood demand ("high")

3. Multifunctional forest management following business as usual

4. No management ("passive")

➡ Each strategy has been linked to various management measures (partly country specific) which are simulated with national forest growth simulators

➡ Strategies 1-3 are similar as in survey and choice experiemnt

➡ Simulation are running also with different climate change scenarios

ValoFor
ForestValue

14

WP2: Modelling forest growth and timber harvest outputs under distinct management strategies

Simulation produce output:

1. Forest growth, harvest output ➔ Input for WP3: Economic analysis
2. Ecosystem services

Timber production

Carbon dynamics

→ Organic carbon in soil

→ Carbon in above ground biomass

Biodiversity

→ Large dimension trees

→ Dead wood stock

  - Standing dead wood

  - Lying dead wood

→ Tree species diversity/composition

  - Shannon/Simpson index

→ Structural diversity

  - Clark and Evans index

  - Gini index

  - DBH/Height differentiation

....

➔ Input for WP4: Multicriteria analysis

ValoFor

ForestValue

WP2: Modelling forest growth and timber harvest outputs under distinct management strategies

Simulation produce output:

1. Forest growth, harvest output ➜ Input for WP3: Economic analysis
2. Ecosyst

Timber pro

Carbon dyr

→ Organic

→ Carbon i

Biodiversity

→ Large dimension trees

→ Dead wood stock

  - Standing dead wood

  - Lying dead wood

→ Tree species diversity/composition

  - Shannon/Simpson index

→ Structural diversity

  - Clark and Evans index

  - Gini index

  - DBH/Height differentiation

....

# Simulation are nearly done ...

Problems...

Delays due to COVID 19 and resulting limitations

- Finalisation of survey response delayed

- Economic analysis delayed

- Stakeholder inclusion across countries shifted into third project year

ValoFor
ForestValue

Thank You

ValoFor
ForestValue

Dr. Silvio Schüler 👤

silvio.schueler@bfw.gv.at ✉

🌐
https://www.researchgate.net/project/ValoFor-Small-Forests-Big-Players-Valorising-small-scale-forestry-for-a-bio-based-economy-a-ForestValue-project

https://twitter.com/ValoforP 🐦

@ValoForProject 📘