The numerous faces of the cultural ecosystem services

3rd ESP Europe Conference
Session T8 sub-session 3

Thursday, June 10

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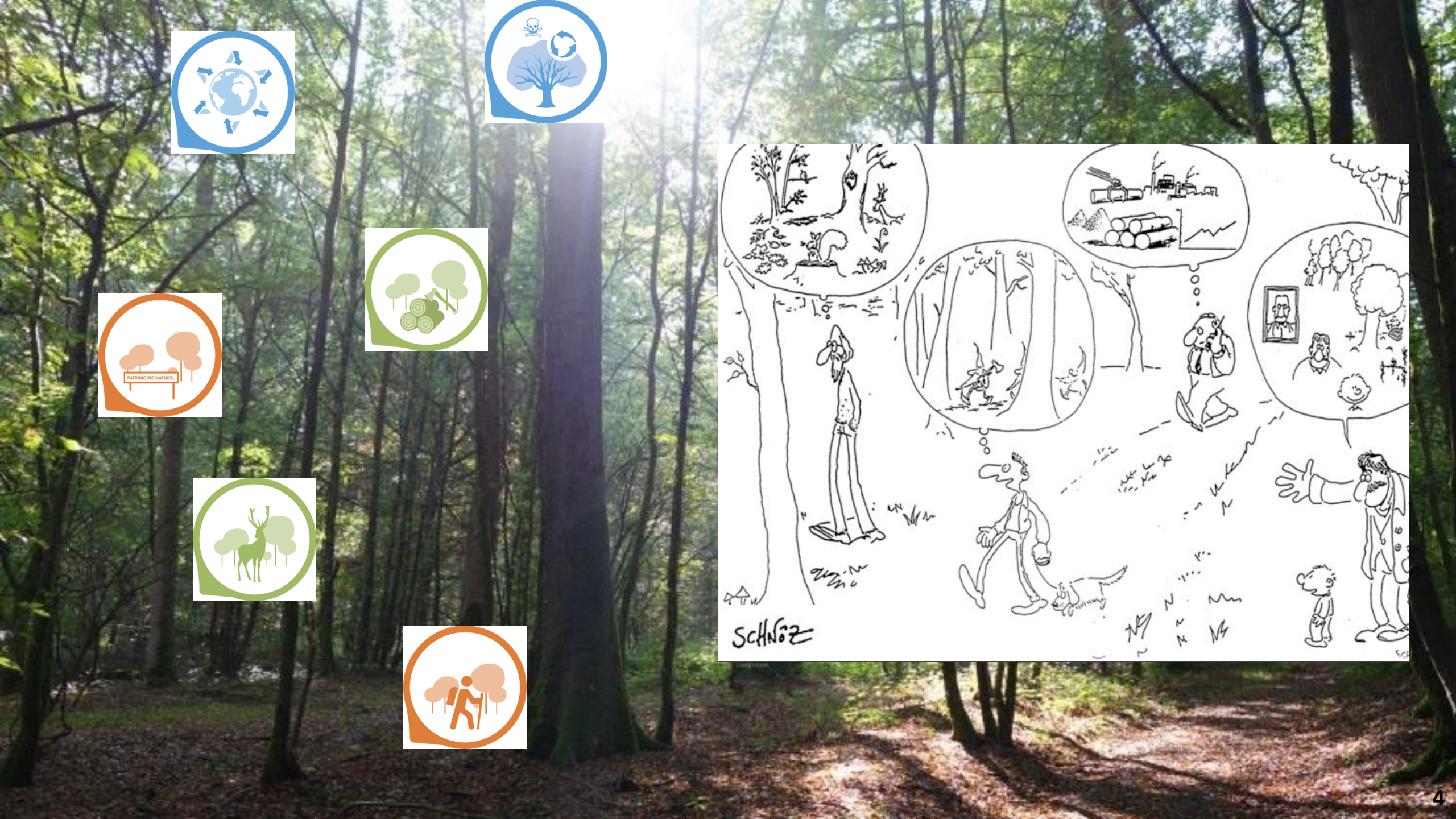
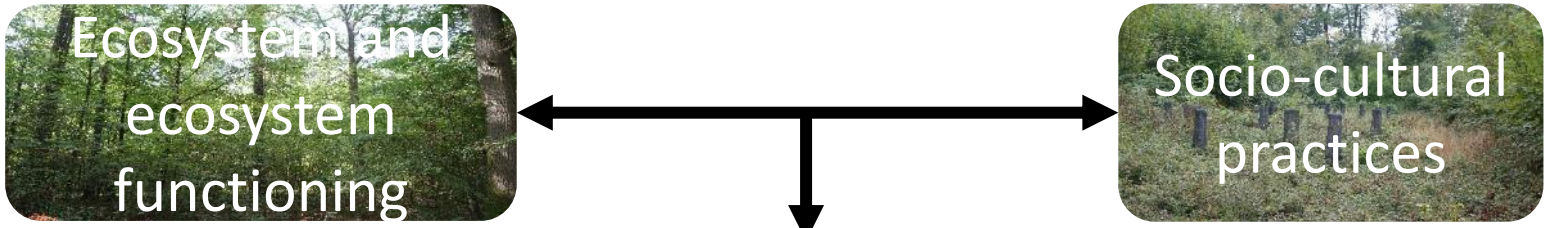
PATRIMOINE NATUREL


PATRIMOINE NATUREL
SCHNÖZ

Ecological system

Social system



Ecosystem services

Value indicators

Adapted from Breyne et al. (2021)

Ecological system

Social system

Ecosystem services

Value indicators

Performance

Biophysical indicators

Economic indicators

Social indicators

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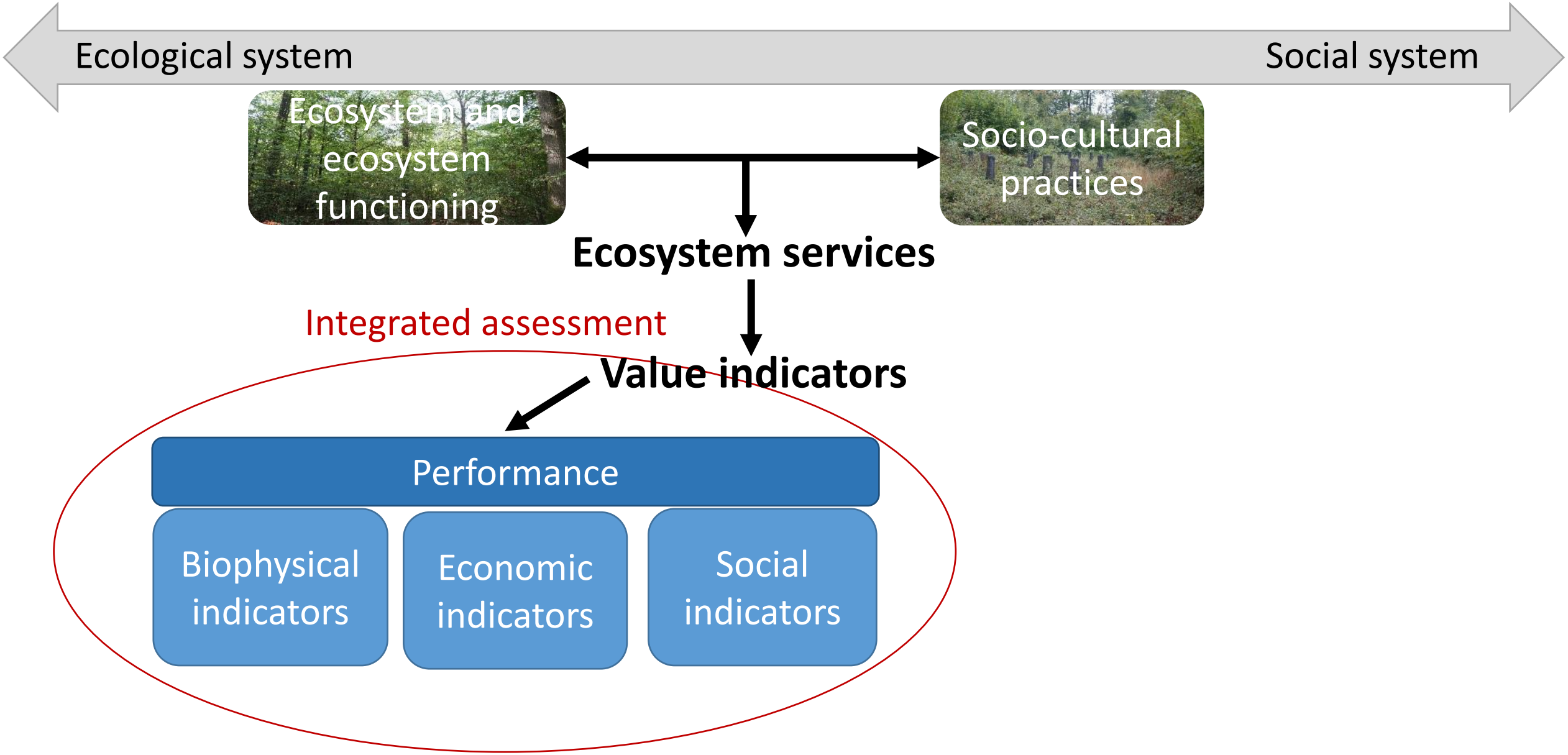


Adapted from Breyne et al. (2021)

Ecological system

Social system

Ecosystem services

Value indicators

Performance

Biophysical indicators

Economic indicators

Social indicators

Ecosystem services performance (ESP)

Importance

Socio-cultural values (SCV)

Adapted from Breyne et al. (2021)

Ecological system

Social system

Ecosystem services

Value indicators

Performance

Biophysical indicators

Economic indicators

Social indicators

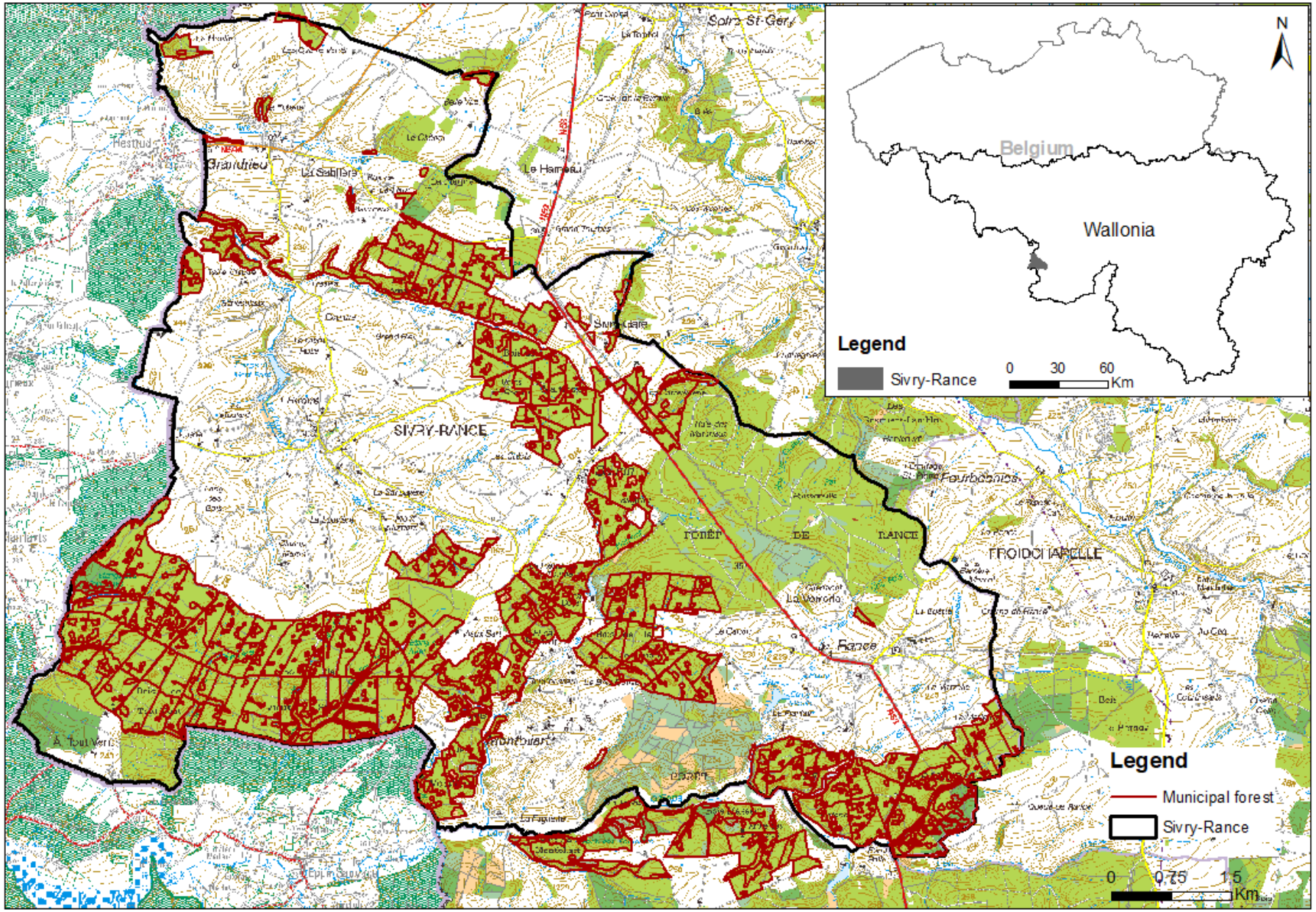
Importance

Decision making

Adapted from Breyne et al. (2021)

Municipal forest of Sivry-Rance

Assessing the cultural ecosystem services (CES) (municipal forest of Sivry-Rance)

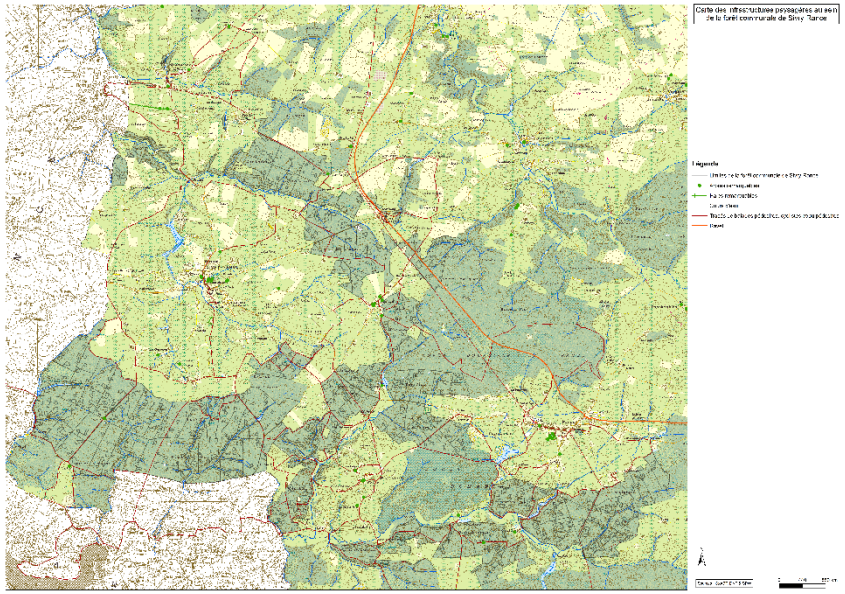


Methodology

Several methods to assess ESP & SCV

Surveys

Other methods



Etc.

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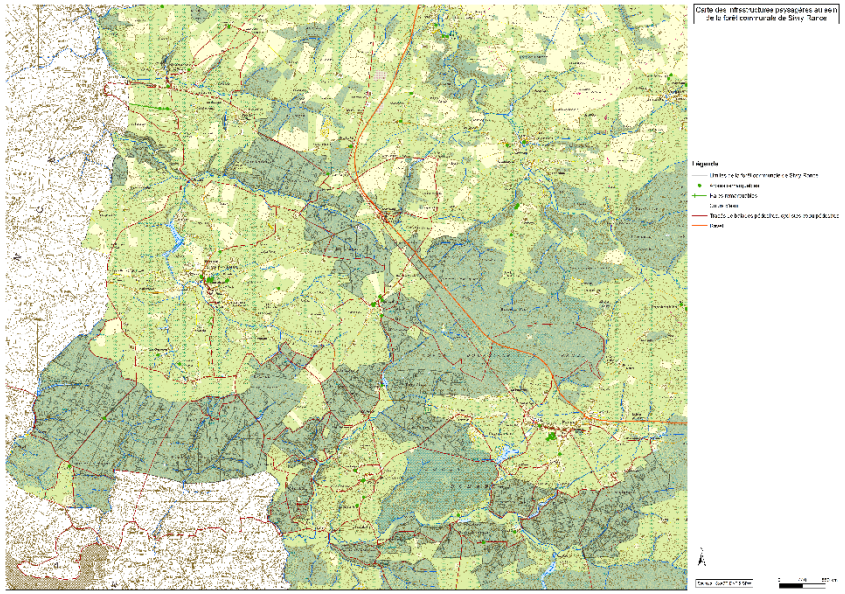

Etc.

Surveys to assess the recreative use of the forest

What is assessed ?

- Use of the forest
- Preferences
- Visitor profile

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ESP

SCV

- Forest attendance
- Forest preferences
- Economic values
- Socio-cultural values

Surveys to assess the recreative use of the forest

What is assessed ?

- Use of the forest
- Preferences
- Visitor profile

ESP

SCV

- Forest attendance
- Forest preferences
- Economic values
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Who ?

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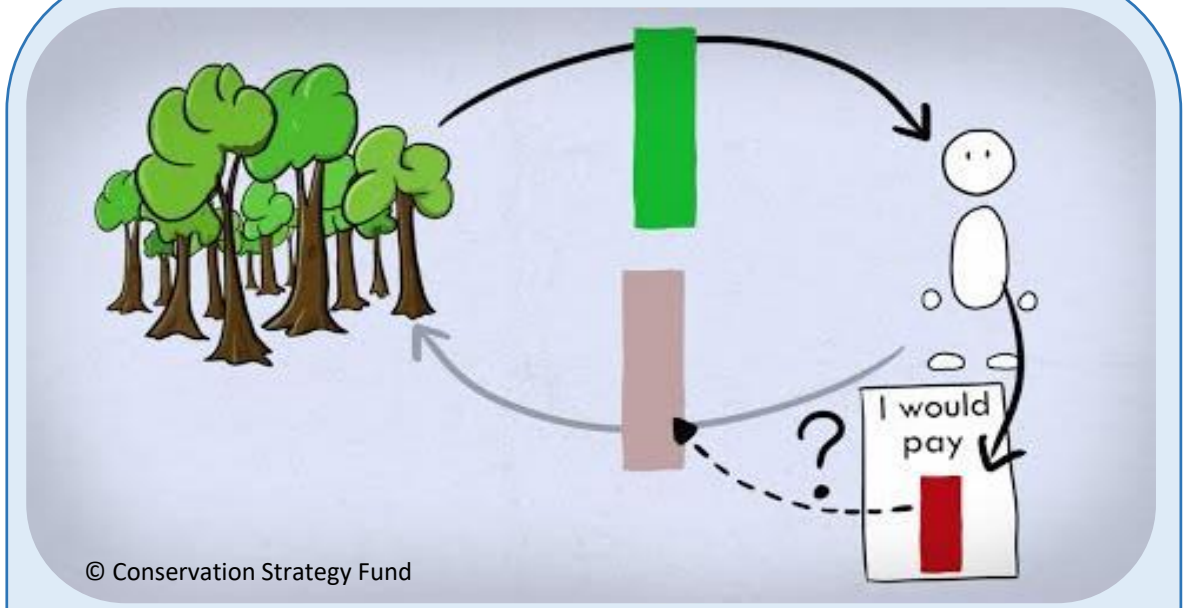
People are willing to pay 10 € to improve ES

Examples of economic values

Contingent valuation

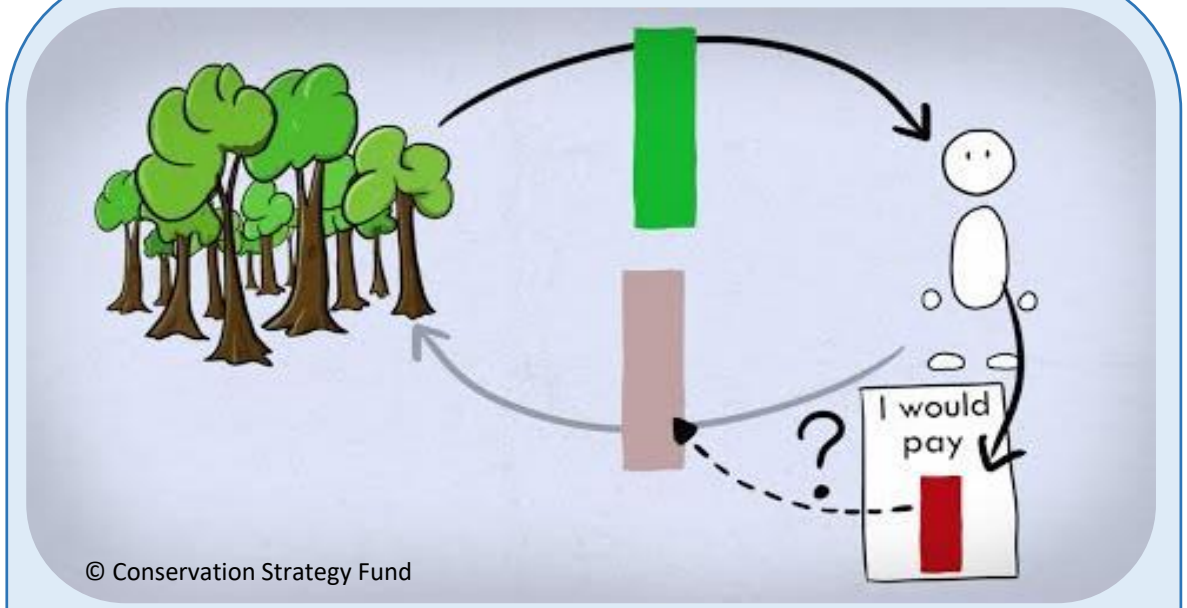


Average willingness to pay (WTP) = 10 €
(n=66)

People are willing to pay 20 € to go in the forest

Examples of economic values

Travel cost method



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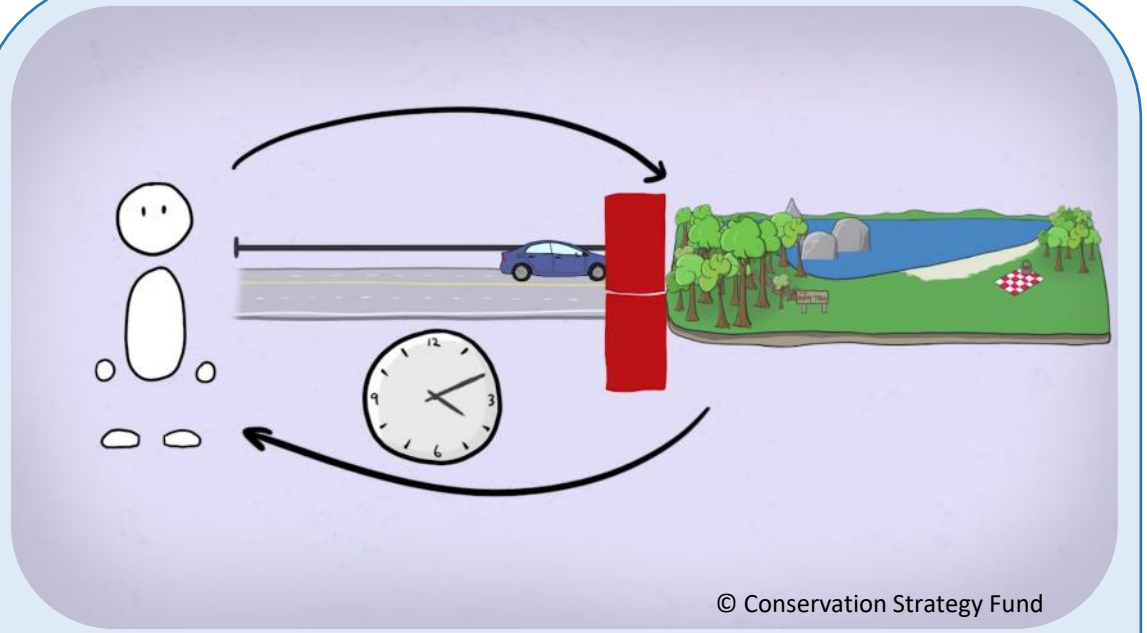
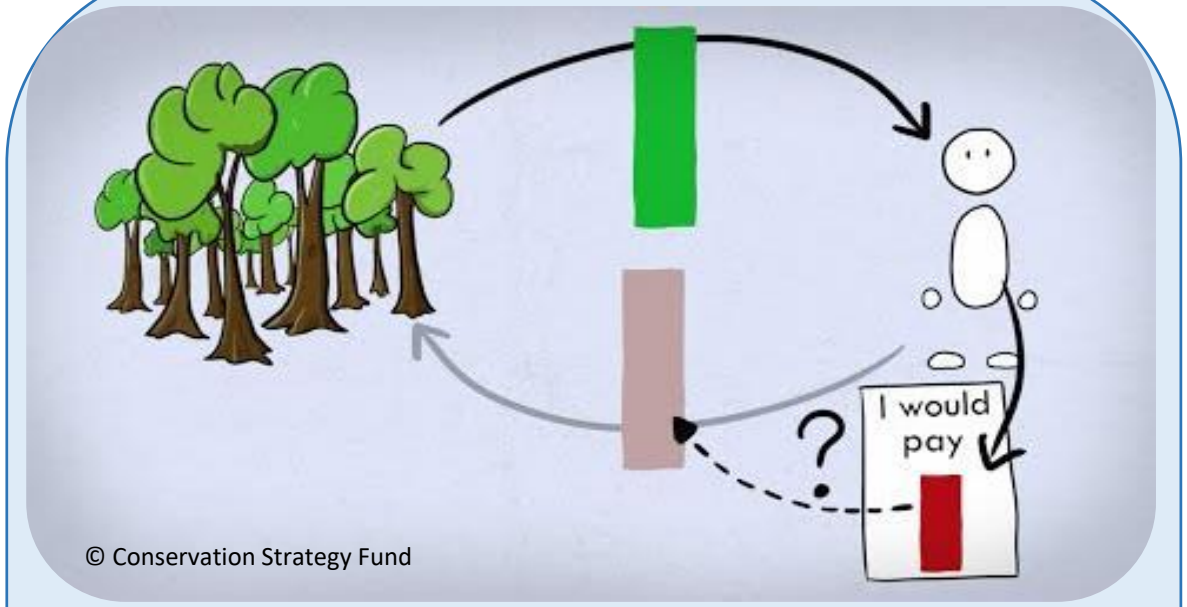


Average WTP = 20 €
(n=70)

First results

Not the same measure => complementary methods



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Average WTP = 10 €

WTP to <u>improve</u> the CES

<u>Fictional</u> scenario

Use and <u>existence</u> values

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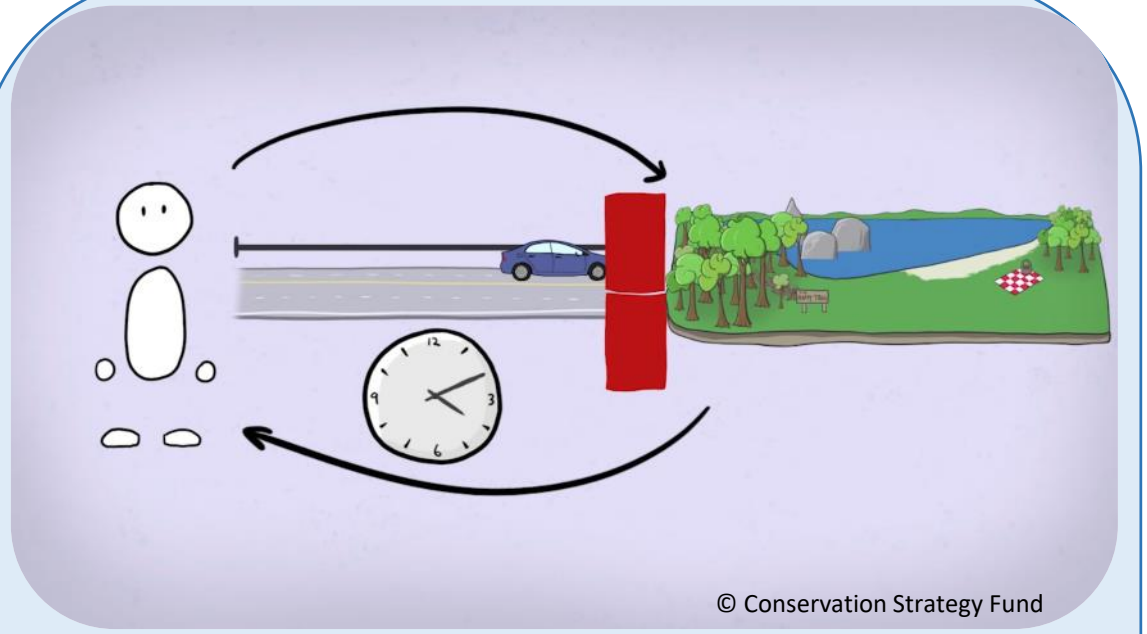

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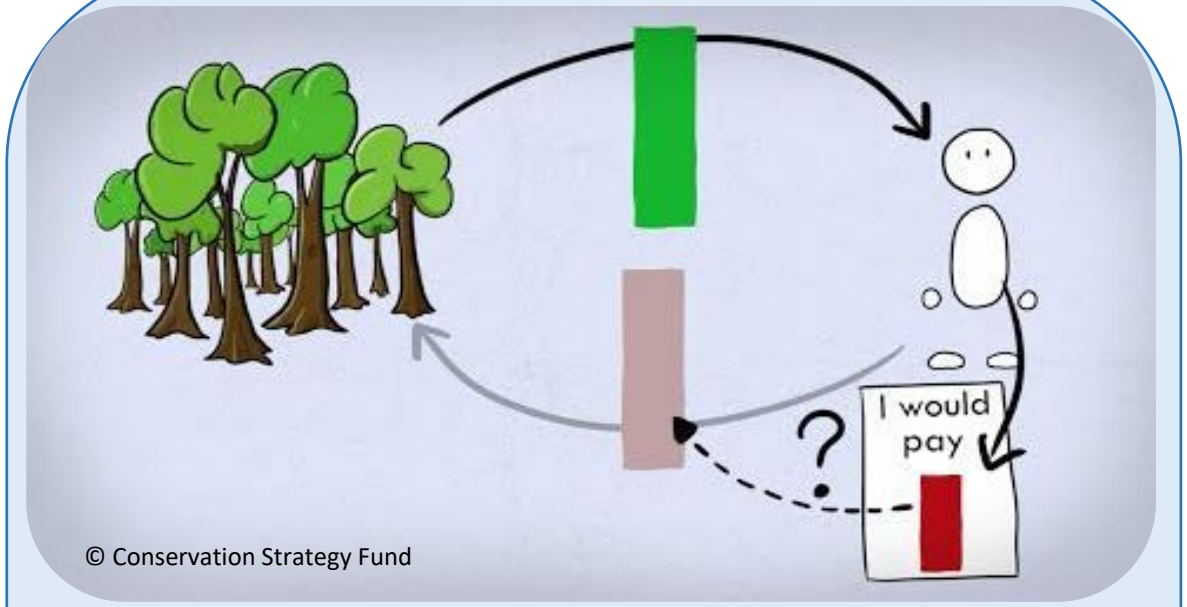
Average WTP = 20 €

WTP to go on site

Real behavior

Use value

Are there some differences between users?



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No significant difference between users

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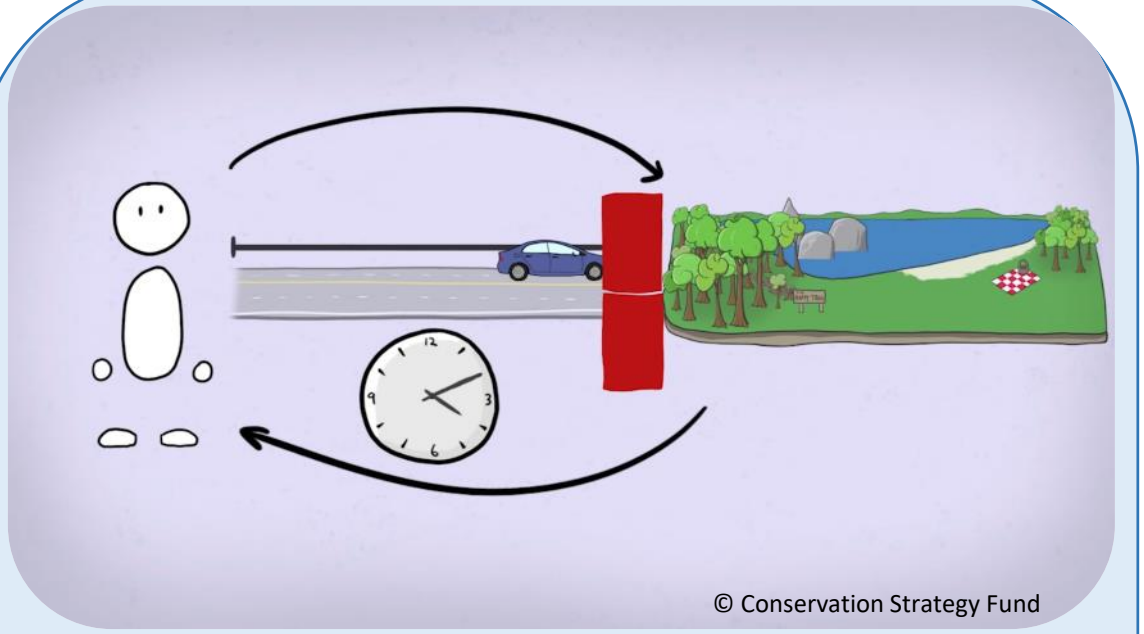

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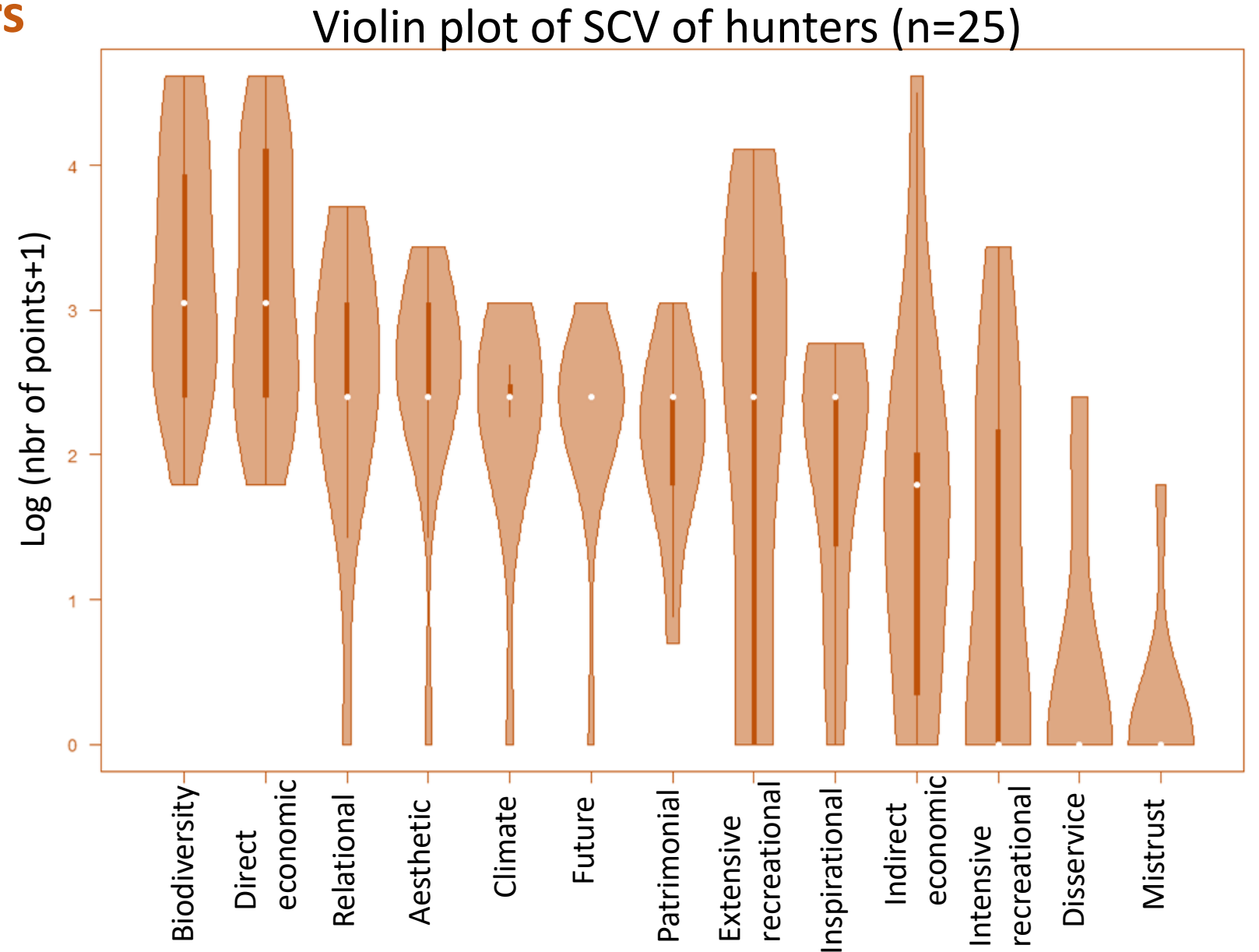
Significant difference between recreational users and hunters

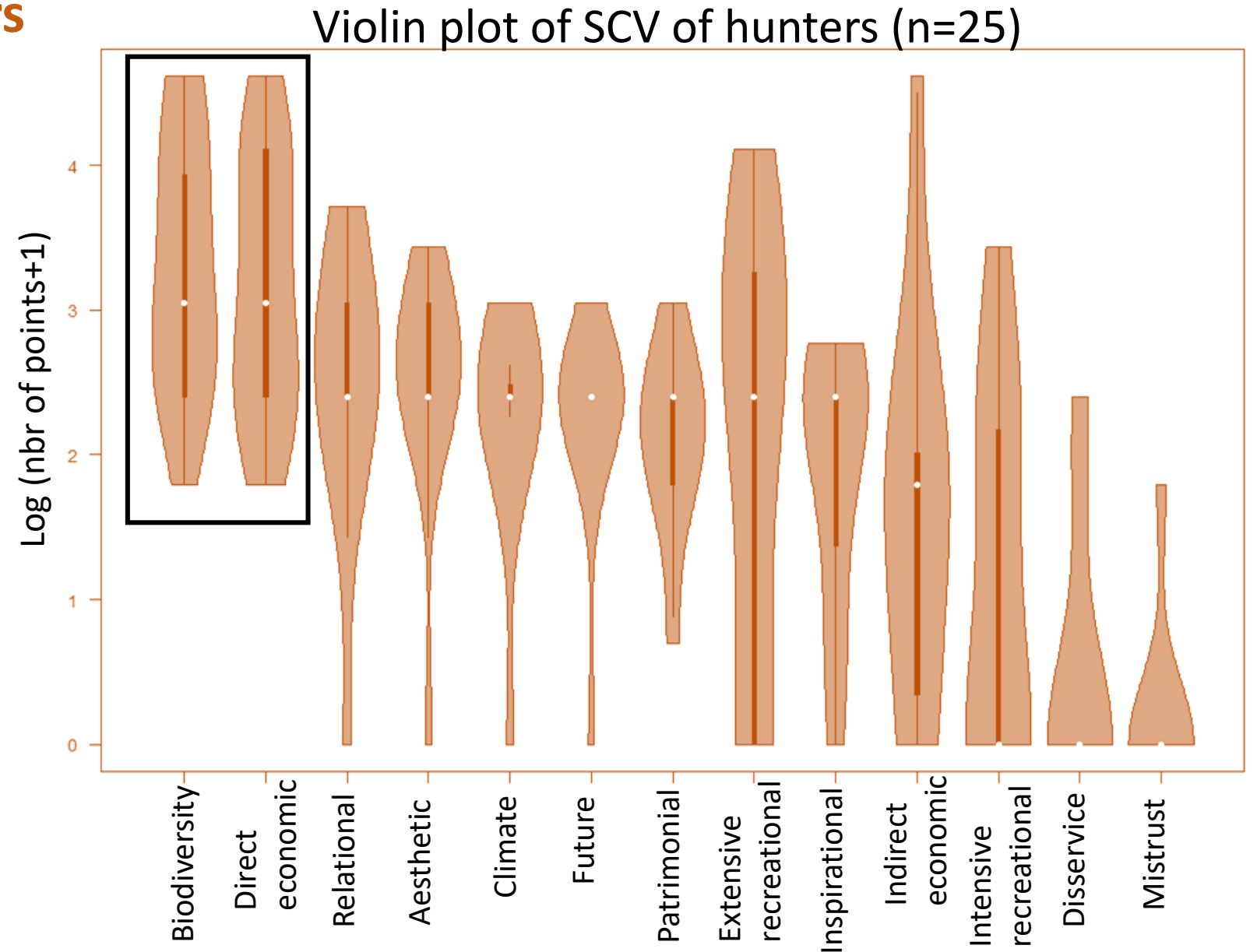
SCV of hunters

SCV of hunters



Some SCV are shared among hunters while others are not

SCV of hunters



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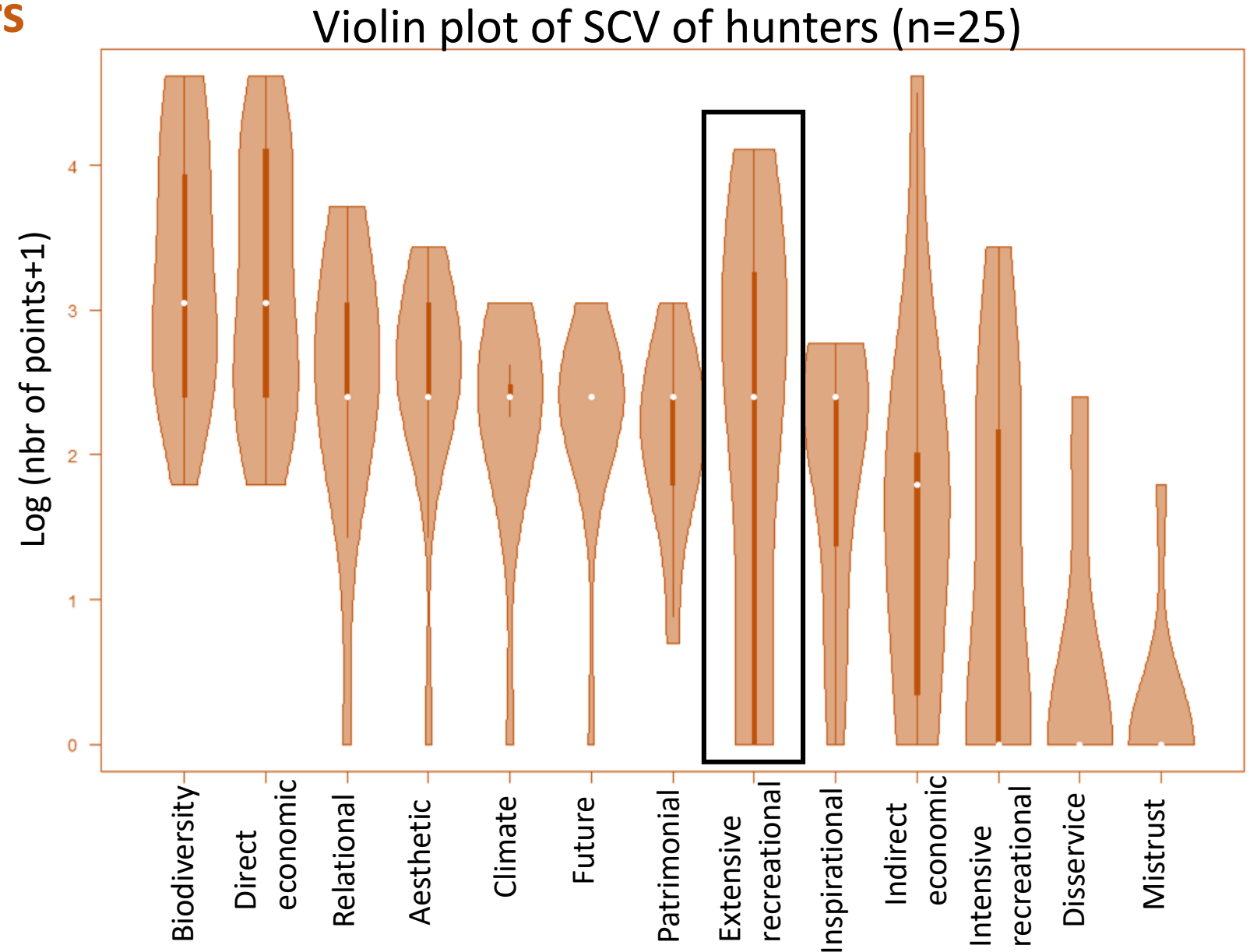

Some SCV are shared among recreational users while others are not

SCV of recreational users

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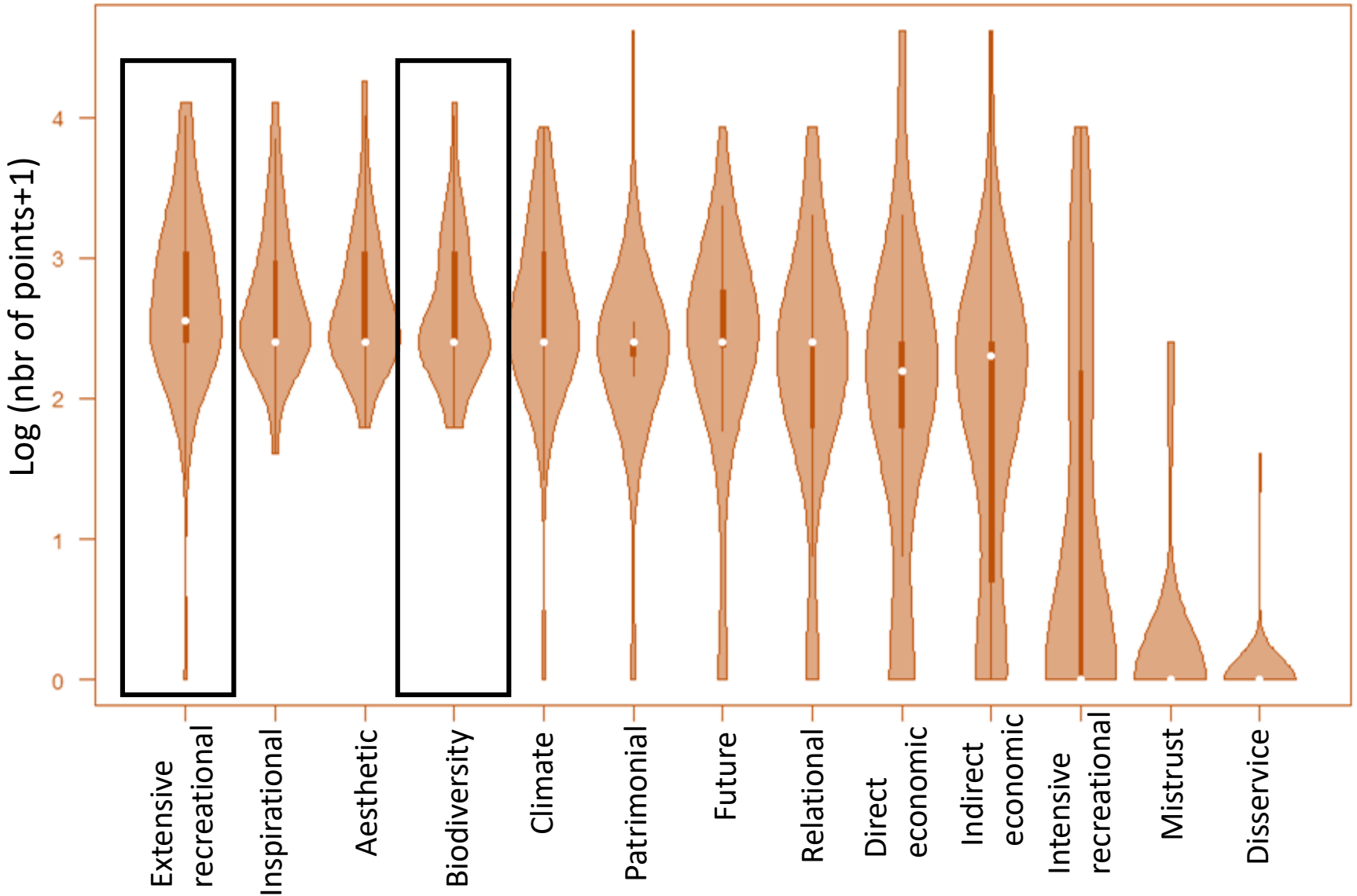
Violin plot of SCV of recreational users (n=67)



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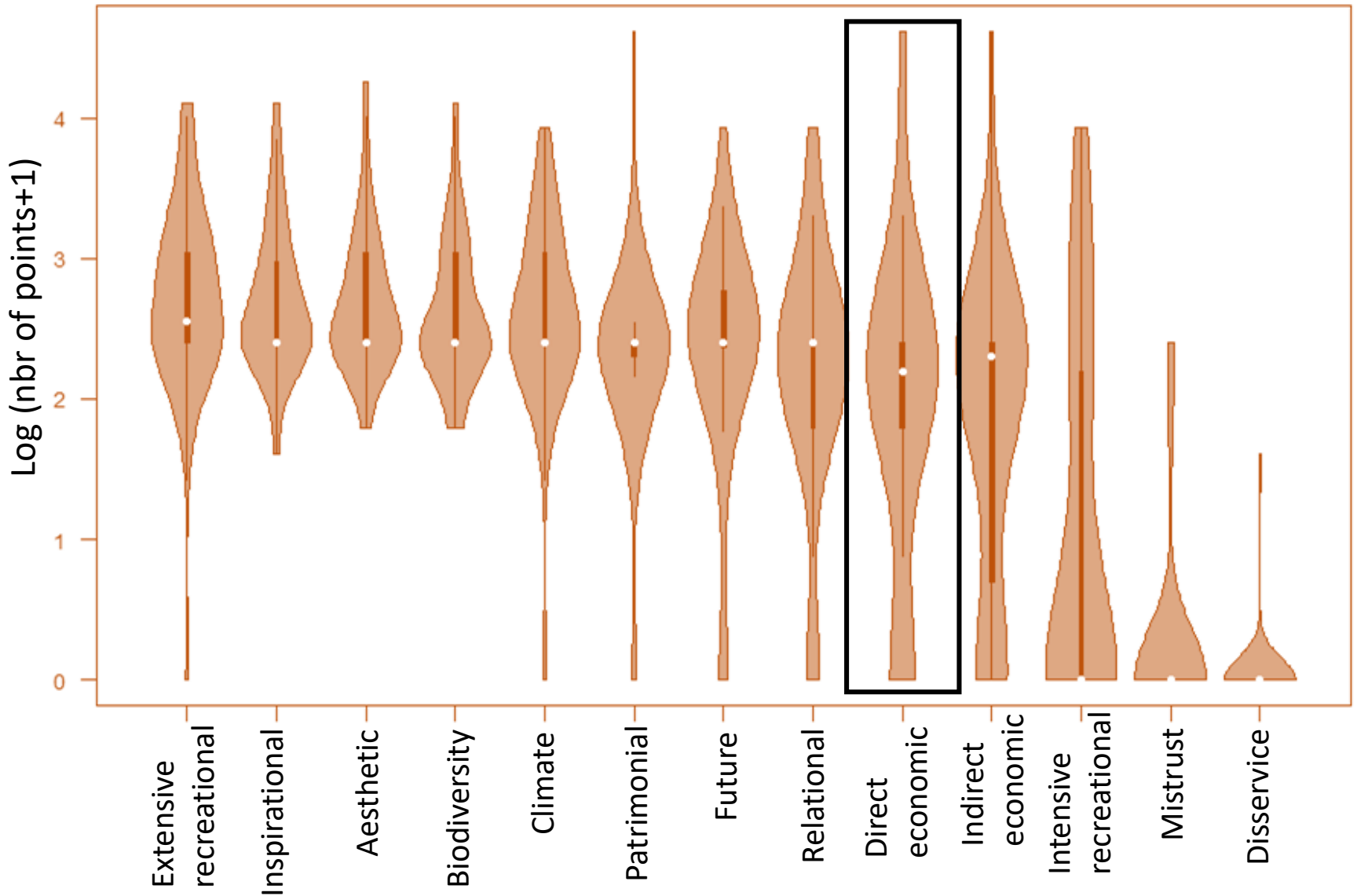

Combining various methods and acknowledging viewpoints

Combining various methods to reveal the diversity of CES performances

- Maintaining the forest + infrastructures
- Improving the forest + infrastructures

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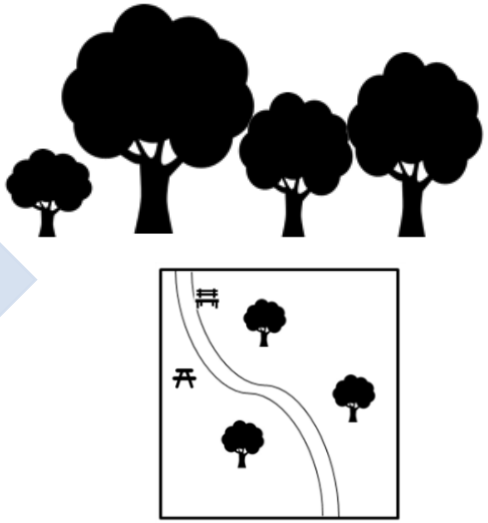

- Irregular hardwood forest
- 40 km of additional trails

Conclusion

Combining various methods and acknowledging viewpoints

Combining various methods to reveal the diversity of CES performances

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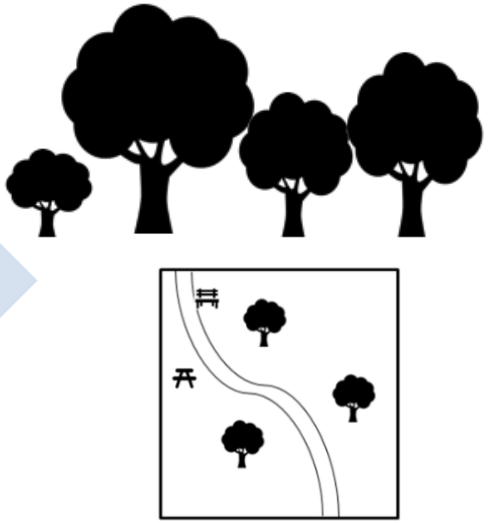
- Improving the forest + infrastructures



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Acknowledging the different viewpoints

- Maintaining and restoring biodiversity
- Communicating between users

Conclusion

Combining various methods and acknowledging viewpoints

Combining various methods to reveal the diversity of CES performances

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➢ Irregular hardwood forest

➢ 40 km of additional trails

Acknowledging the different viewpoints

- Maintaining and restoring biodiversity
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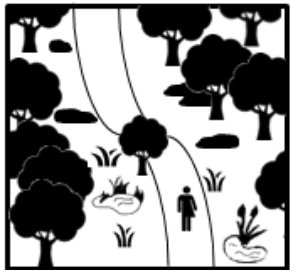


➢ Ponds, open areas

➢ Forest consultative commission

Thank you for listening

Any question?

References

Breyne, J., M. Dufrêne, and K. Maréchal. 2021. How integrating “socio-cultural values” into ecosystem services evaluations can give meaning to value indicators. *Ecosystem Services* 49:101278.

The socio-cultural (SC) values presented to the respondents.

Socio-cultural values and their explanation	
Socio-cultural value	Explicative phrase showed to the respondent
	The Ardennes forests are important to me because …
Aesthetic value	… I can enjoy the views, sounds, smells, etc.
Biodiversity value	… they provide a habitat for wild animals, plants and microorganisms.
Direct economic value	… they provide economic products such as timber, mushrooms, game, etc.
Indirect economic value	… they create jobs because of their touristic attractiveness, of which I can make use as a user or operator from the touristic sector.
Extensive recreational value	… they provide a space for my outdoor activities such as hiking, biking, observation of fauna and flora, etc.
Intensive recreational value	… they provide a space for my outdoor activities such as quad, 4x4, MTB circuits, mass events, etc.
Bequest value	… they allow future generations to know and experience these forests.
Patrimonial value	… they are part of the cultural patrimony in the same way as villages, abbeys, castles, etc., and they are part of the history of the region.
Relational value	… they provide a place to create or reinforce social relationships (outings with family or friends, working environment, etc.)
Mistrust value	… one could feel ill at ease in those forests because they create fears (of getting lost, they are dark and gloomy, etc.)
Life Support value	… in the battle against climate change and the maintenance of a healthy living environment through the renewal of soil, air, water, etc.
Inspirational/ Therapeutic value	… they are inspiring places and make one feel better, physically as well as mentally.
Disservice value	… they can also have a negative impact on daily life (less room for urbanization or agriculture, pests or damage by wildlife, etc.)

Adapted from Breyne et al. (2021)

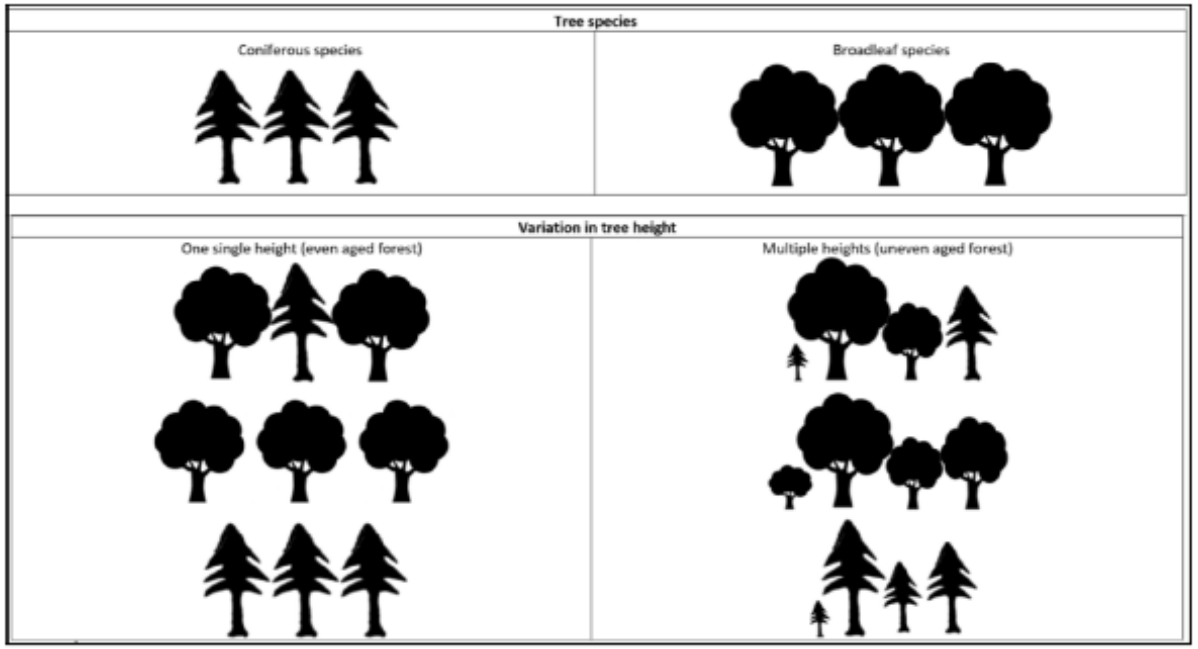
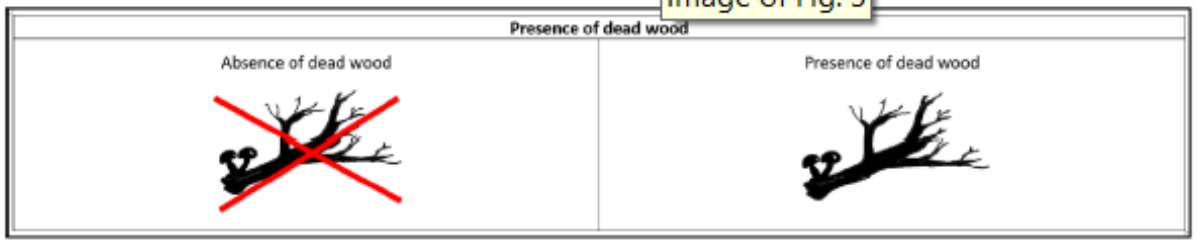
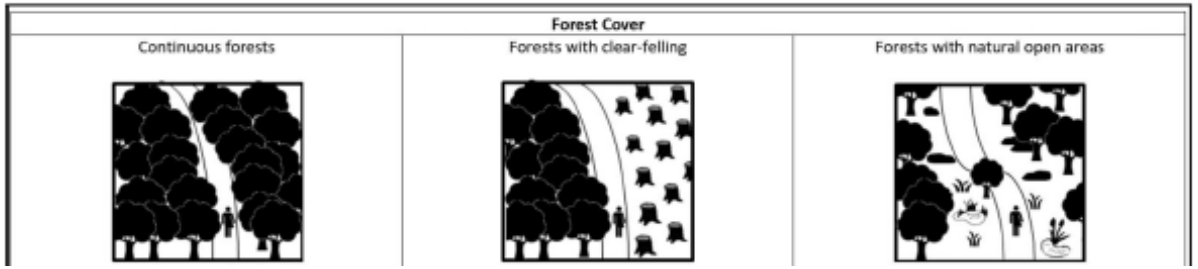


Image of Fig. 3





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