Institute for Economy and the Environment

University of St.Gallen

Local Acceptance of Wind Energy in Switzerland, Estonia and Ukraine. A Cross-Country Analysis based on Choice Experiments.

Ebers, Tabi, Wüstenhagen, Kostyuchenko, Smolennikov, Joller.

Vienna, 04.09.2017

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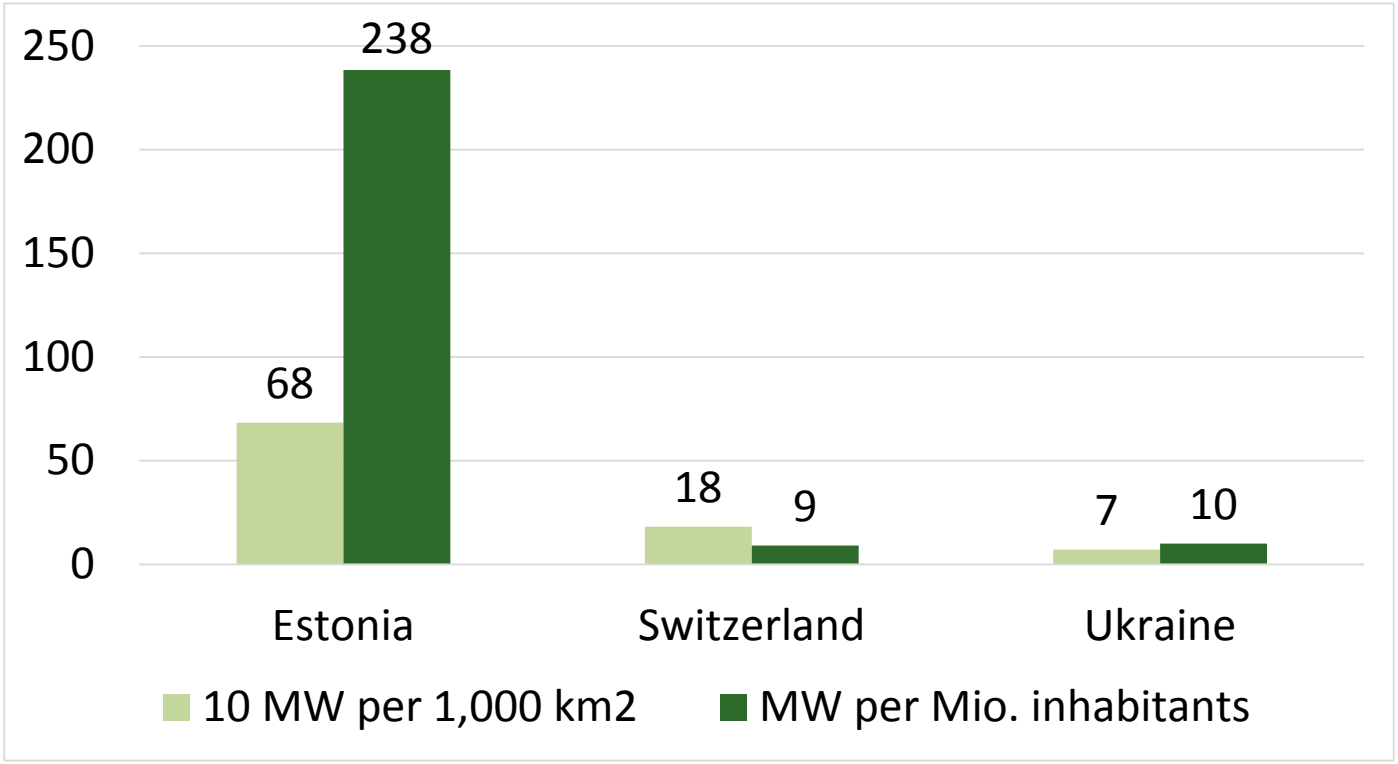
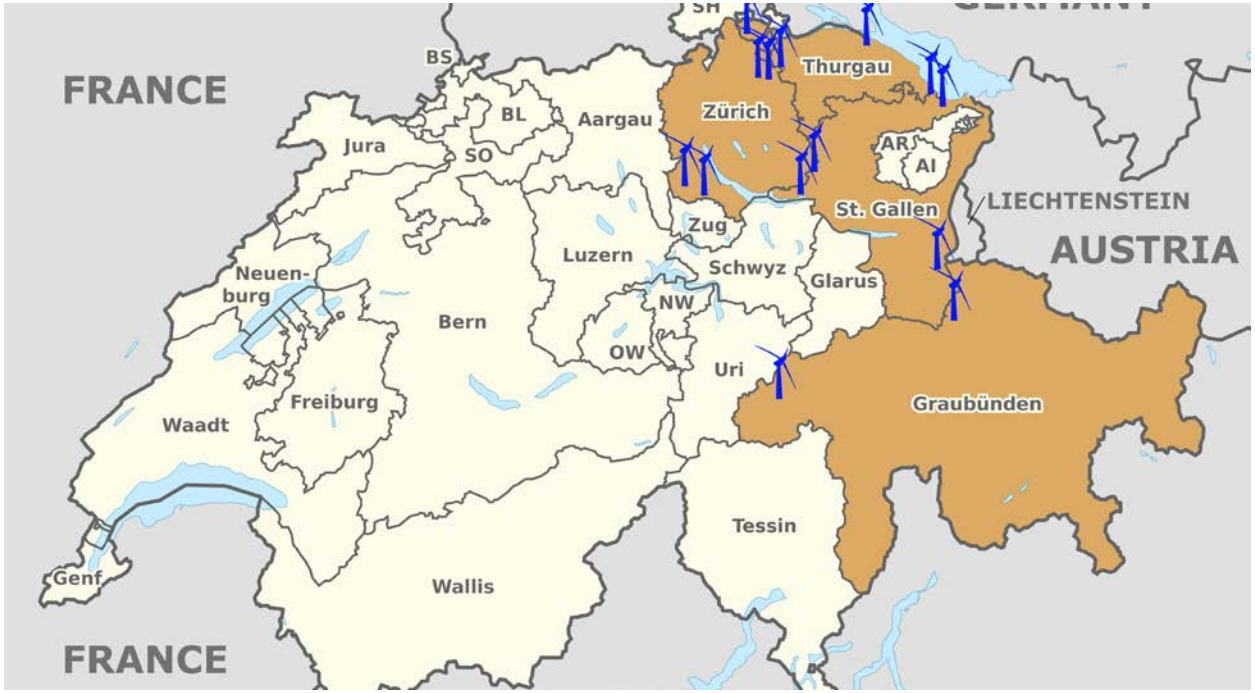
Research question 1:

How does social acceptance of wind power projects differ across countries?



Installed wind energy capacity by 2016

Geographic focus: Eastern Switzerland

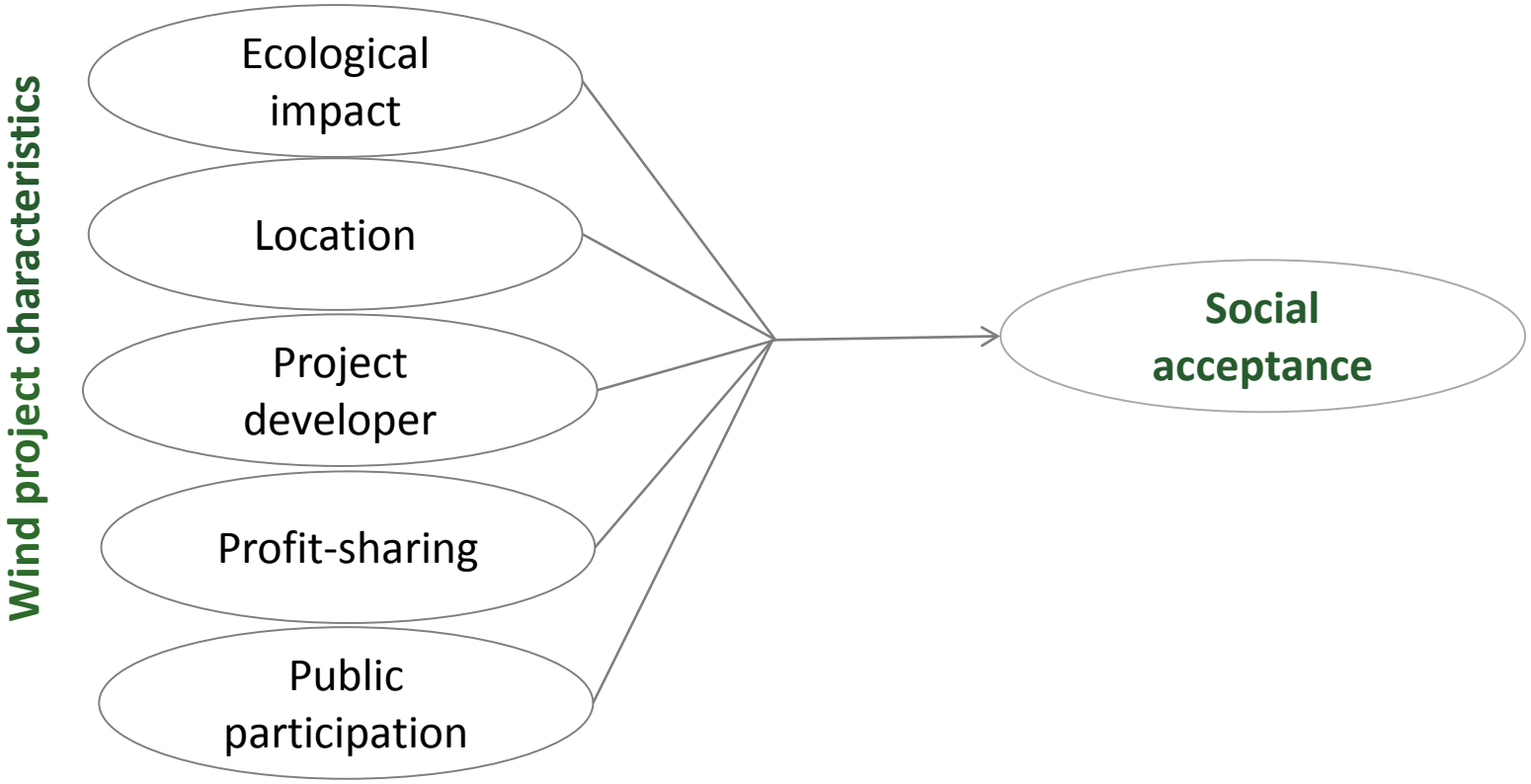


Geographic focus: Western Estonia

Geographic focus: Southern Ukraine

Research question 2:

What characteristics of a wind project are connected to highest social acceptance?



Source: Tabi and Wüstenhagen, 2015

Method II: CBC

Imagine that you can choose which wind energy project will be built in your region. The wind park consists of 23 wind turbines that are 120 m high.

Developer:
1) individuals from the region,
2) local electric utility,
3) cooperation between local utility and a specialized investor,
4) foreign energy company.

Location:
1) near a residential area,
2) on agricultural land,
3) In industrial and commercial zones,
4) in ecologically significant landscapes & protected areas

Profit sharing:
1) no revenue sharing,
2) revenue sharing with local landowner
3) revenue sharing with municipality
4) direct payments to all residents

Public participation:
1) minimal participation as required by law,
2) informational brochure and a website,
3) public hearing,
4) co-determining the number and location of wind turbines

Ecological impact:
1) large
2) medium
3) low
4) almost non-existent

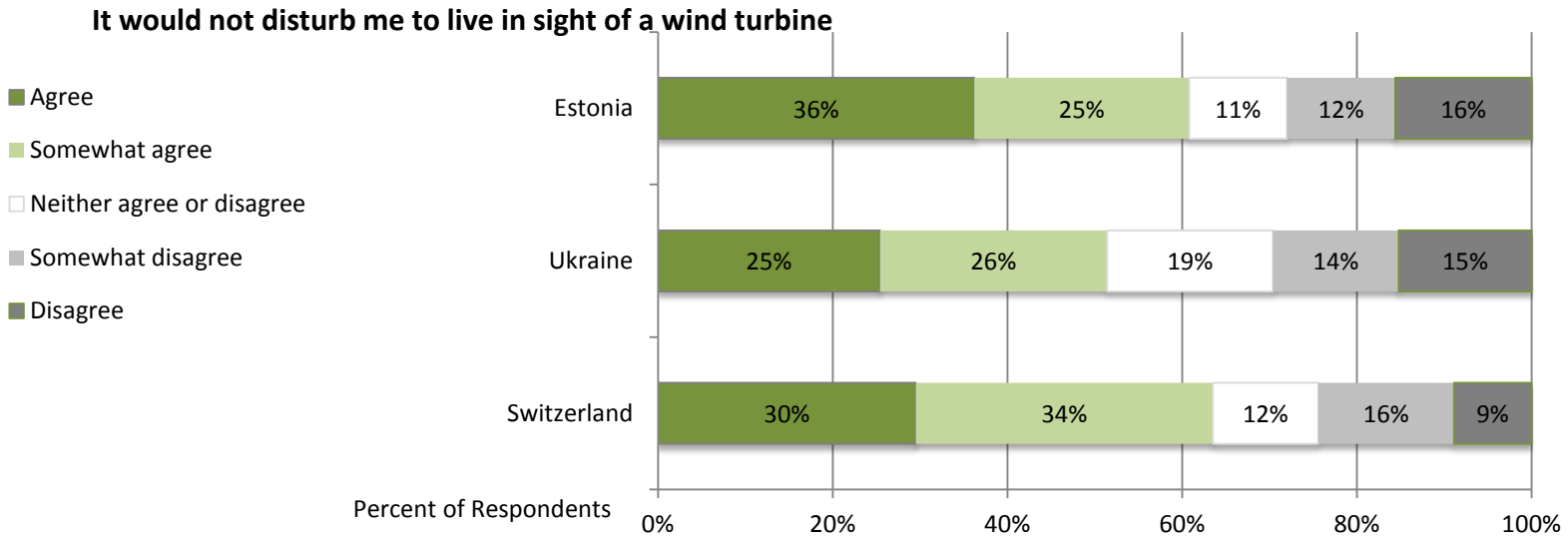
Method I: CBC

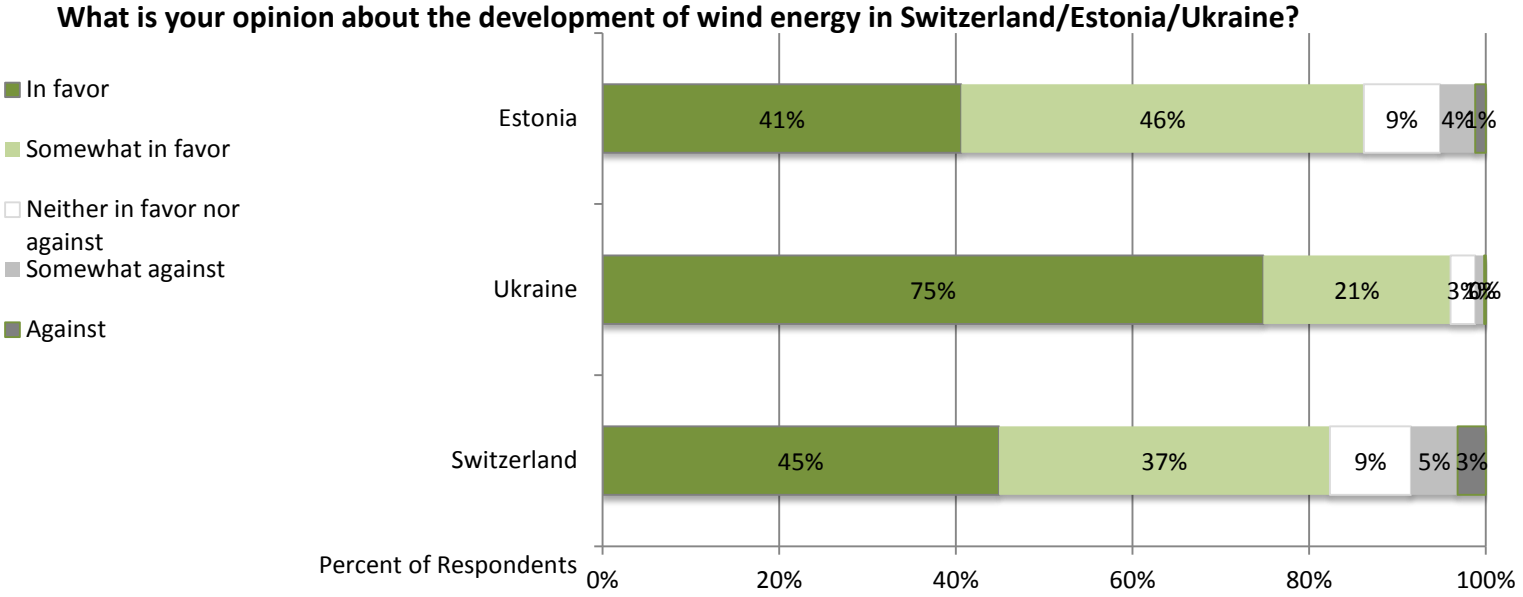
Imagine that you need to choose among the following wind energy projects in your region.
Which would you choose?
Choose by clicking one of the buttons below:

(1 of 11)

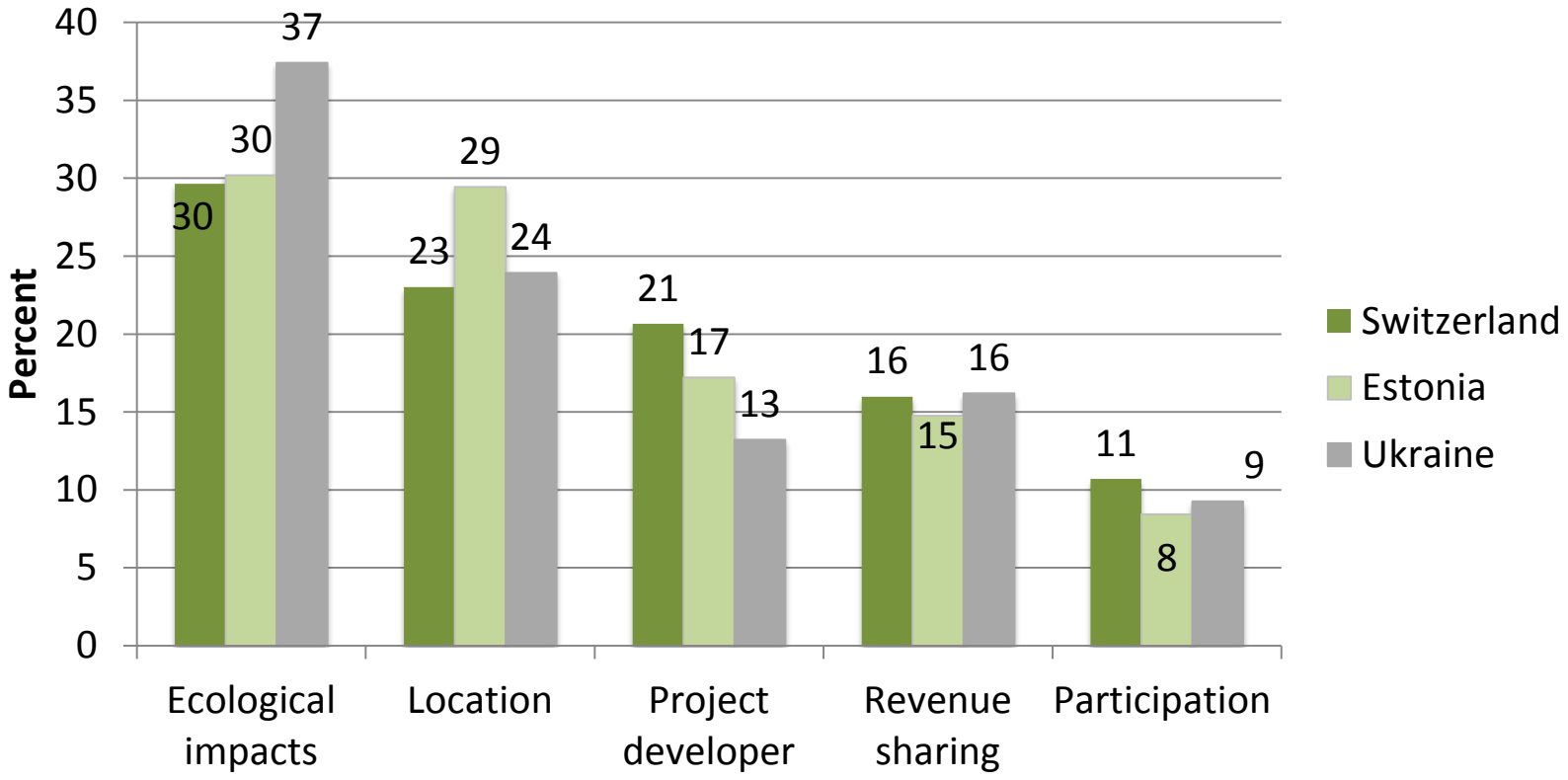
Developer	individual(s) from the region	individual(s) from the region	local electric utility
Location	in industrial and commercial zones	on agricultural land	in ecologically significant landscapes & protected areas
Revenue sharing	revenue sharing with local landowner	no revenue sharing	revenue sharing with local landowner
Ecological impact	low	almost non-existent	almost non-existent
Participation	minimal participation as required by law	informational brochure and website	minimal participation as required by law
	○	○	○

Results I: Social acceptance

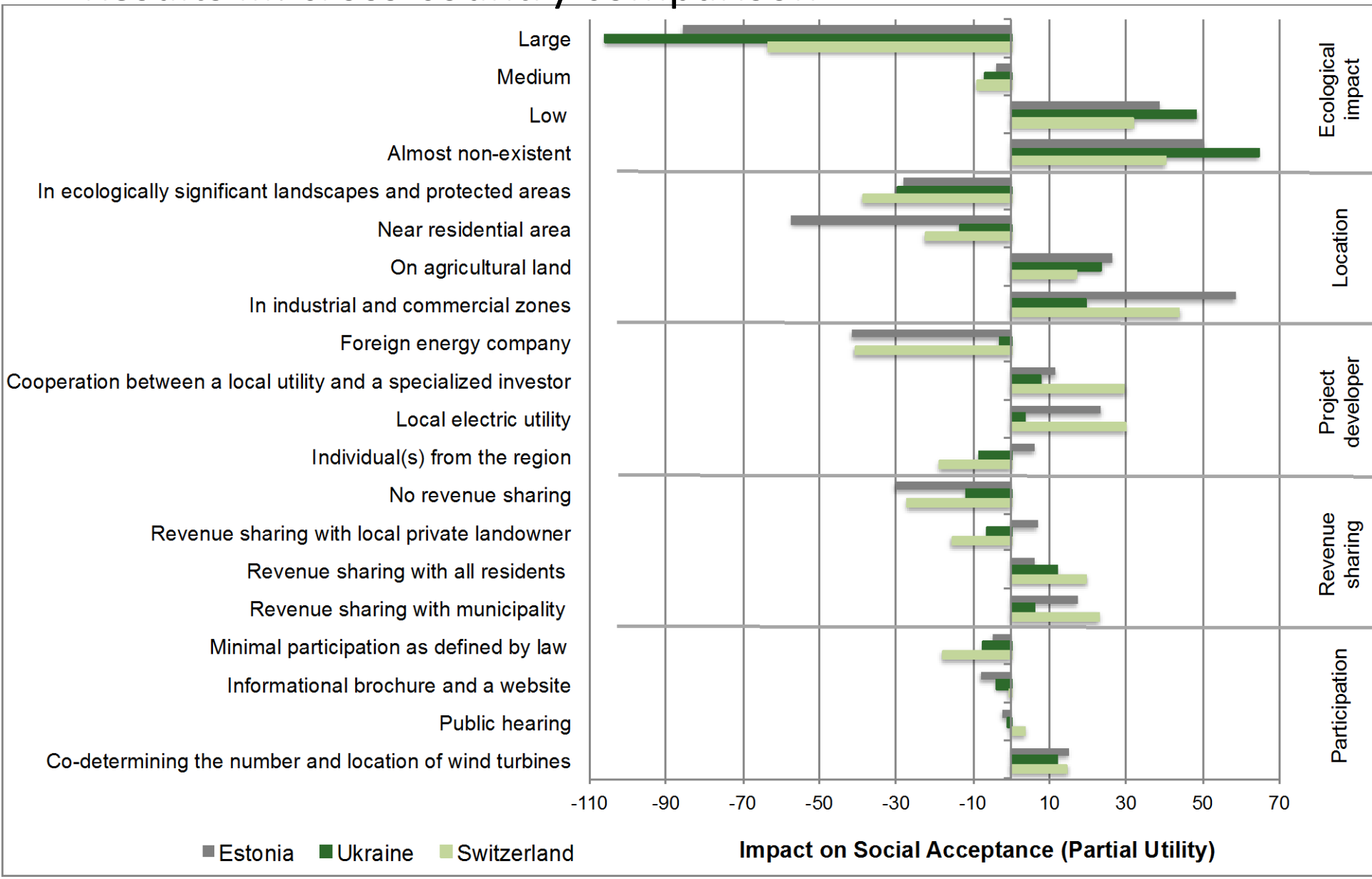




Results II: Importance of wind project features



Results III: cross-country comparison



Conclusions I:

- High share of population in CH, EE, UA would like to see wind energy developed on national and local levels
- Despite different history, natural resource endowment, & electricity market structure, respondents in CH, EE, and UA had similar preferences wrt to features of wind projects
- Eco-impact, location, developer identity of higher importance, followed by procedural and distributional justice
- Most important to keep wind projects ‘nature-friendly’ and ‘local’

Conclusions II:

Highest social acceptance of the wind project that:

-has smallest ecological impact

-is in industrial or commercial zone

-is developed by a utility company, alone or with a specialized investor

-offers revenue sharing with municipality or all residents

-allows local population co-determine the number and location of wind turbines

Thank you

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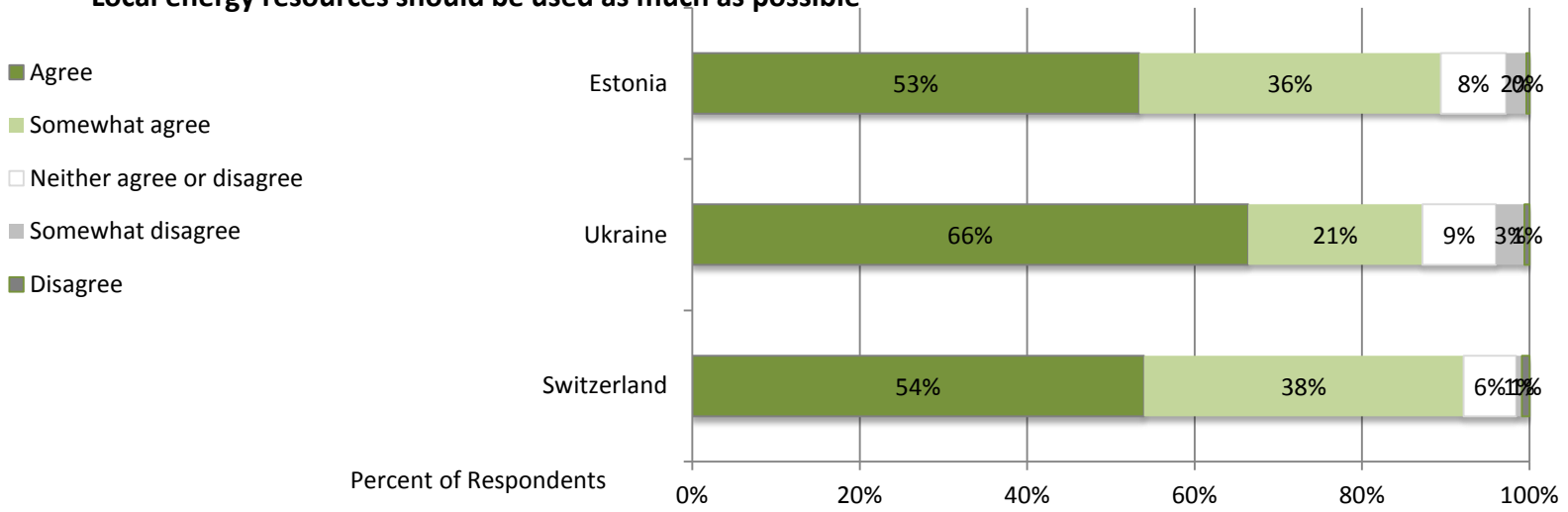
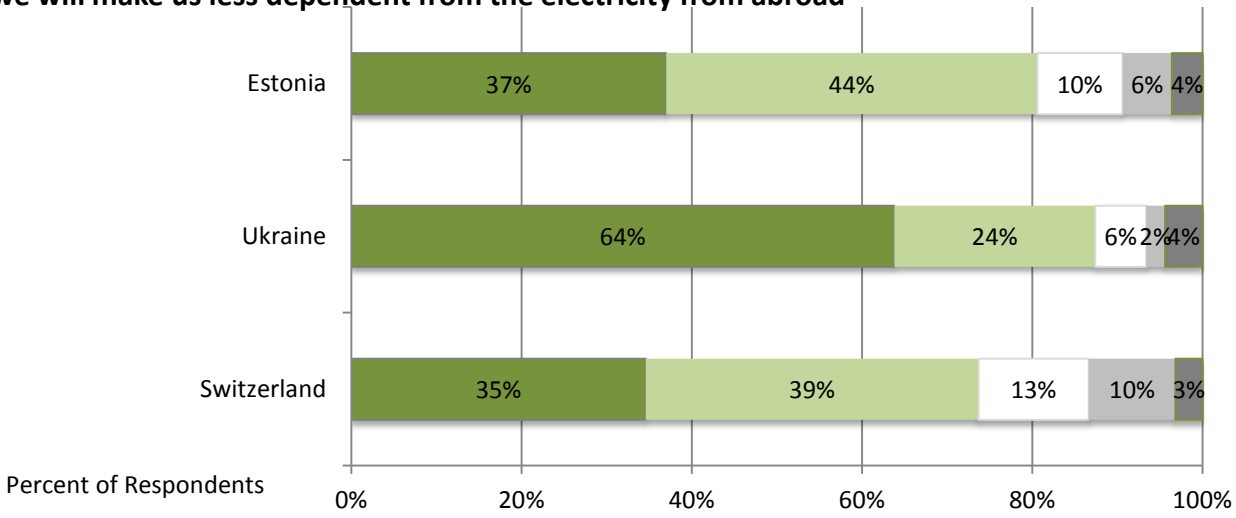
Local energy source

Local energy resources should be used as much as possible



Local wind energy we will make us less dependent from the electricity from abroad



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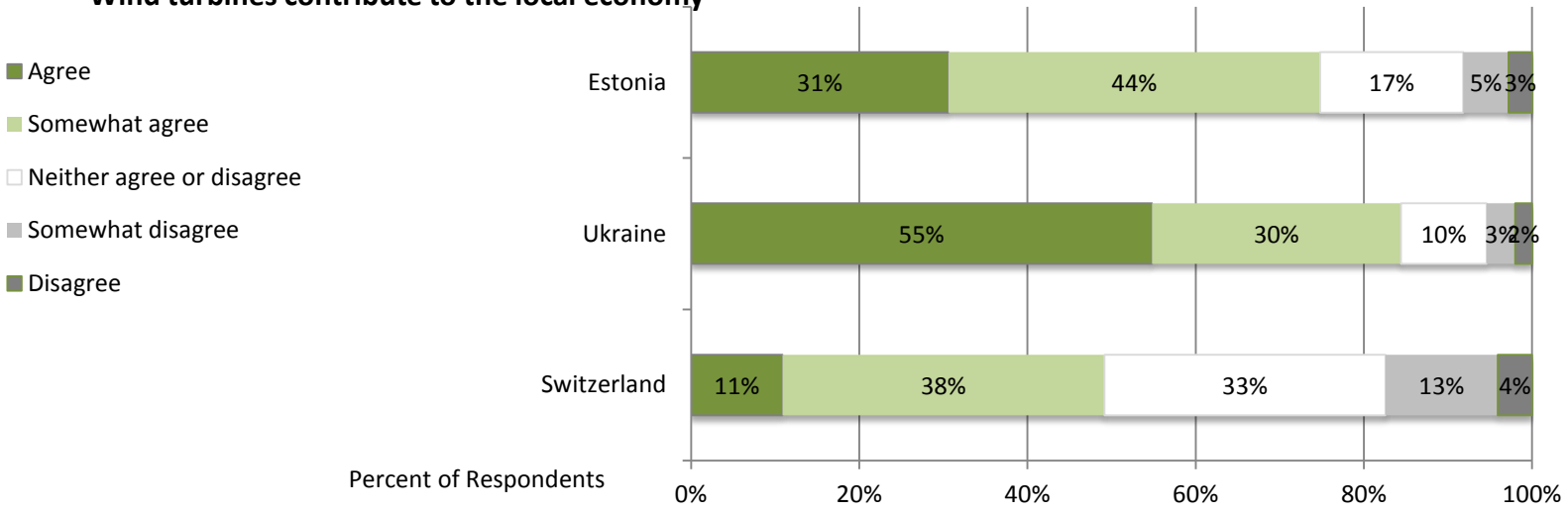
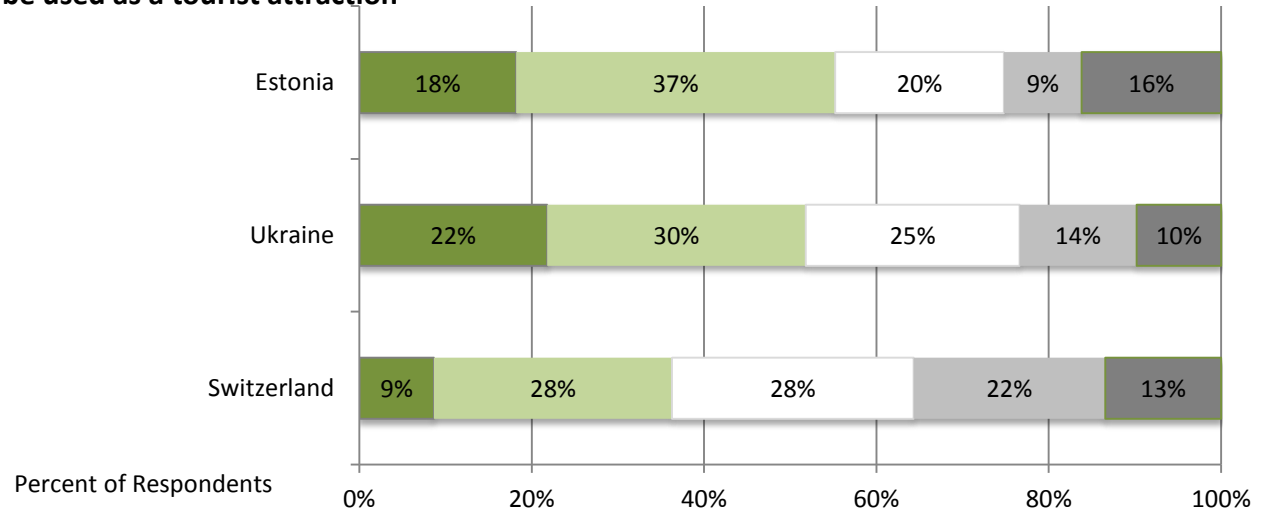
Economic opportunity

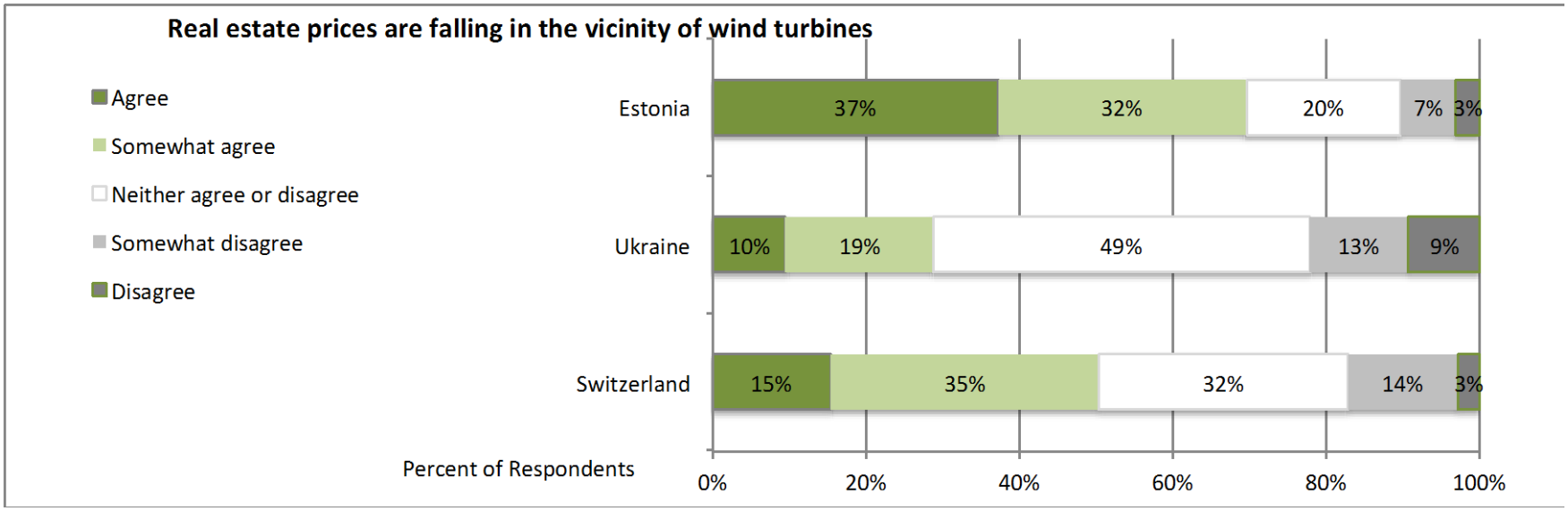
Wind turbines contribute to the local economy

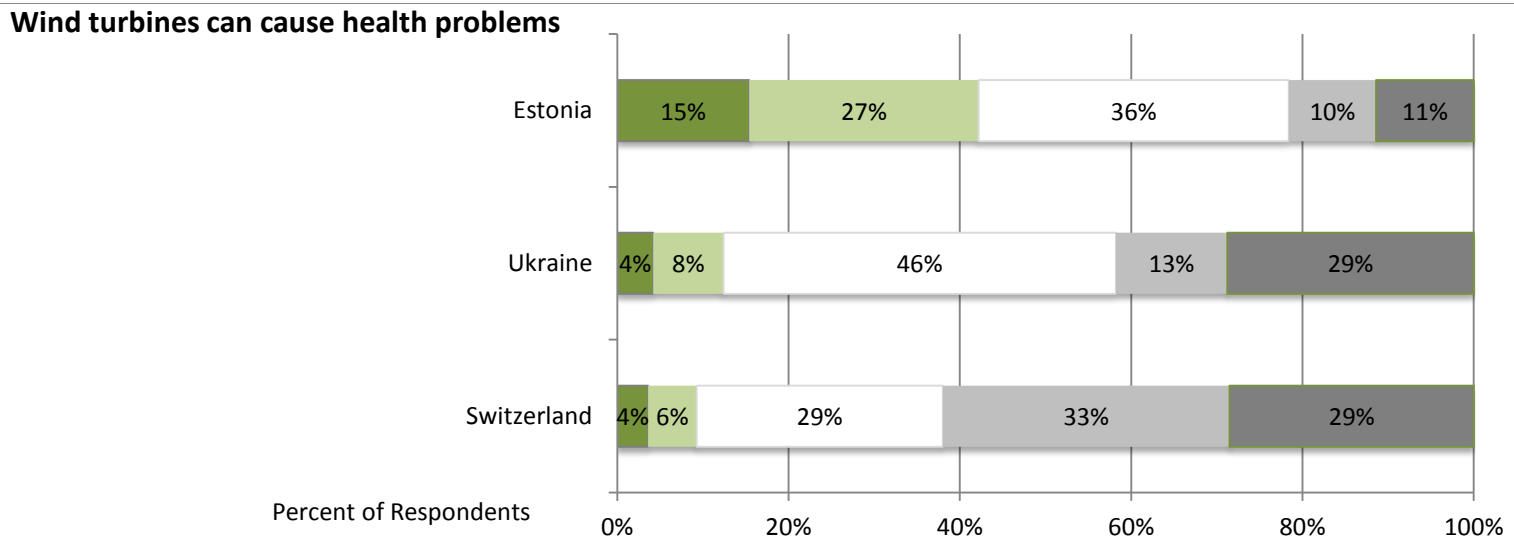


Wind turbines can be used as a tourist attraction



Problematic aspects





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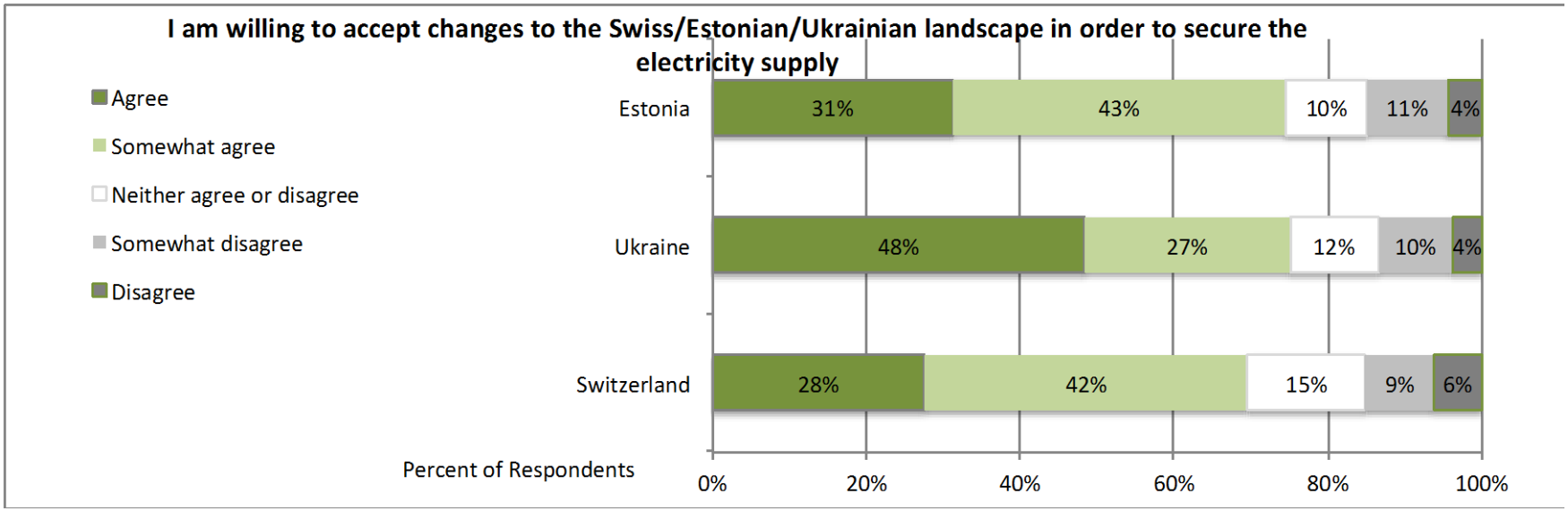
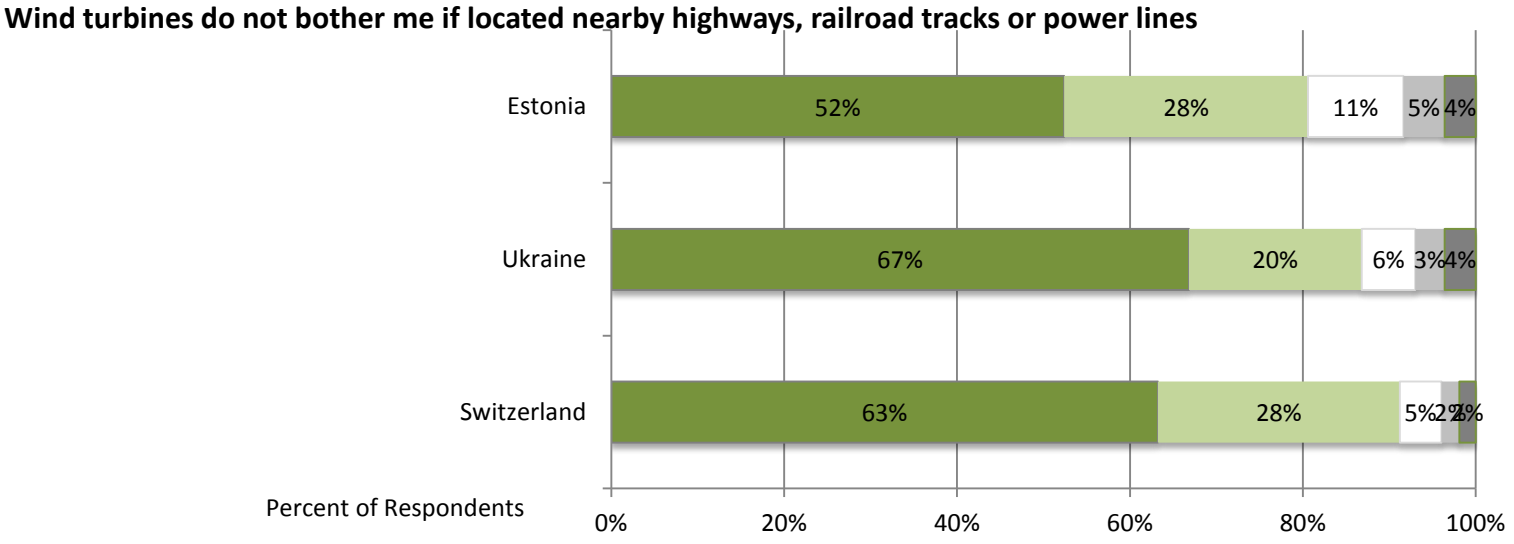
Landscape impacts





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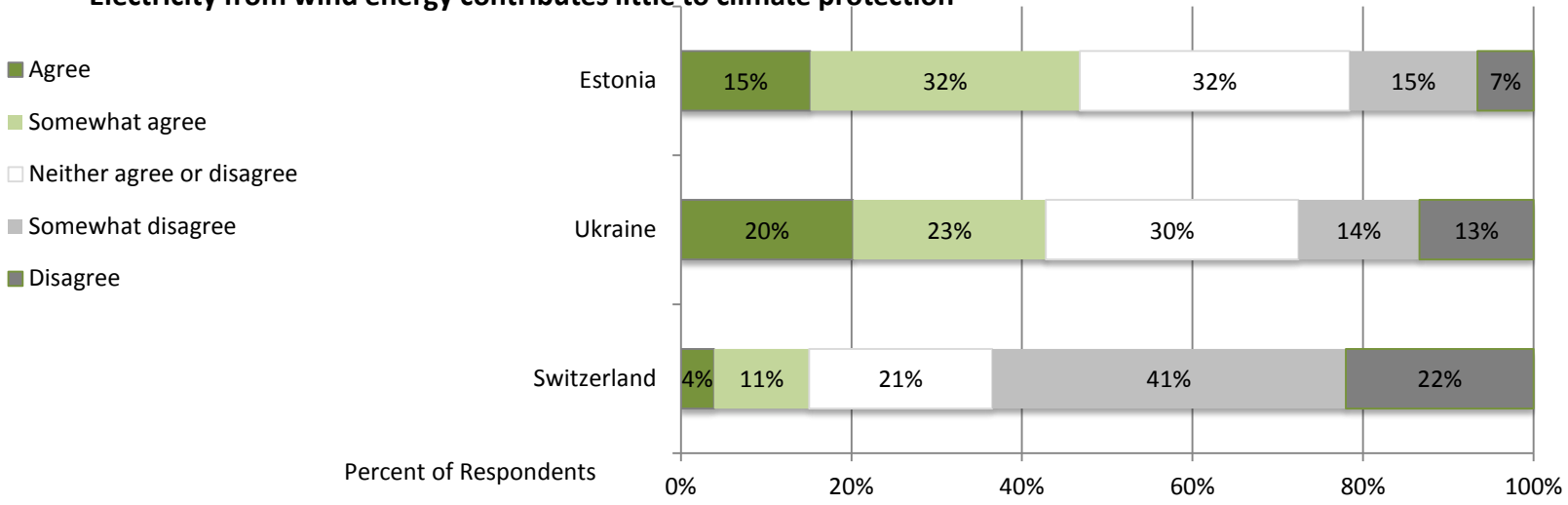
Wind energy beliefs

Electricity from wind energy contributes little to climate protection



Wind energy is an important source of renewable energy in Switzerland/Estonia/Ukraine