

Multi-Criteria Analysis with test chains in Baden-Württemberg.

Testing approaches and software with stakeholders

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WP1.5



[Edinburgh, May 2006]

MCA - Why should we do it...

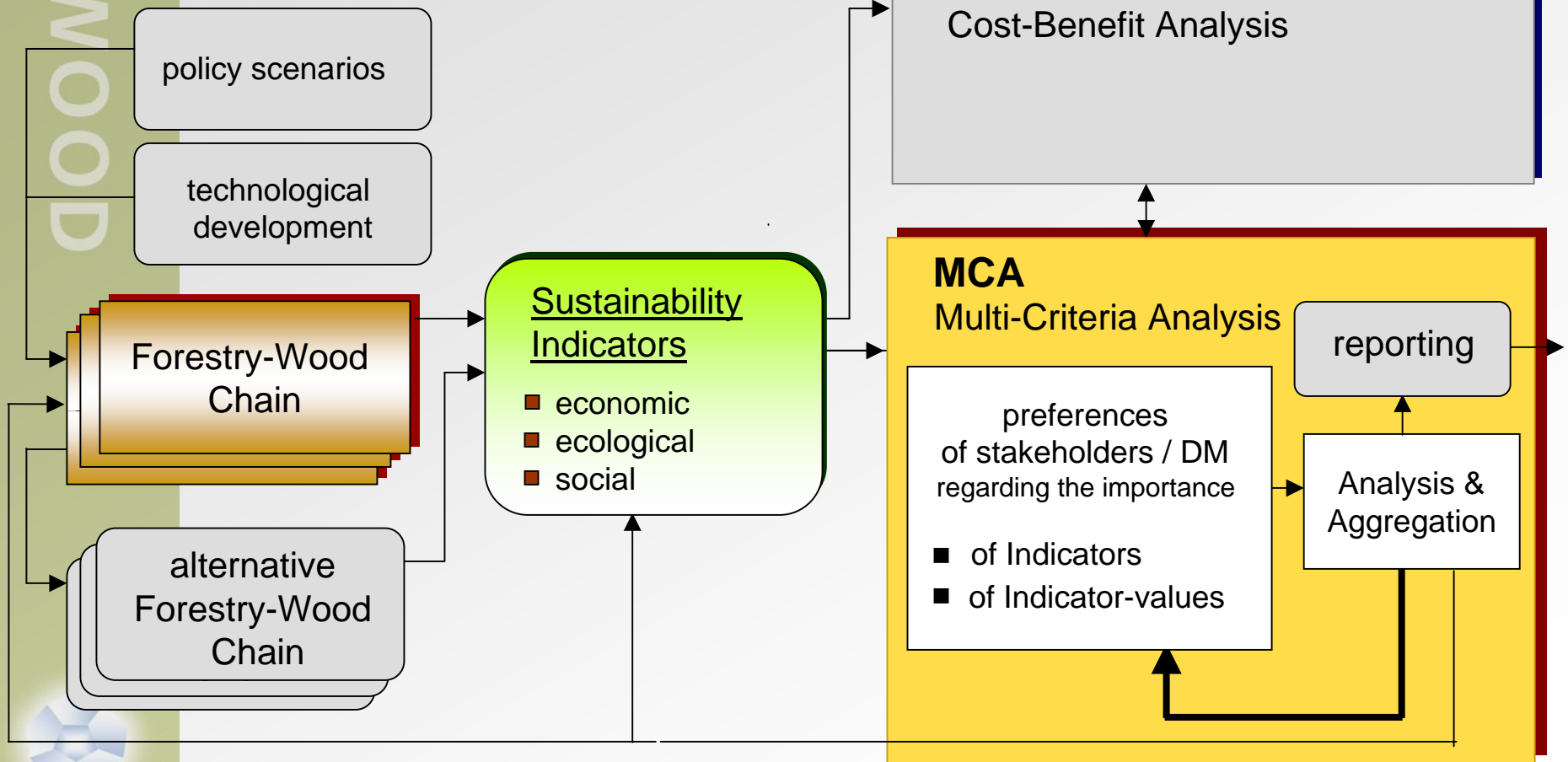
- We will see all sorts of impacts across alternatives, cf. the indicator list
- We must be able to compare alternatives and evaluate e.g. a difference between two optional FWCs (a, b) like:

$$d(a,b) = 10\text{€} + 1\text{kg CO}_2 + 15 \text{ FTE employment}$$

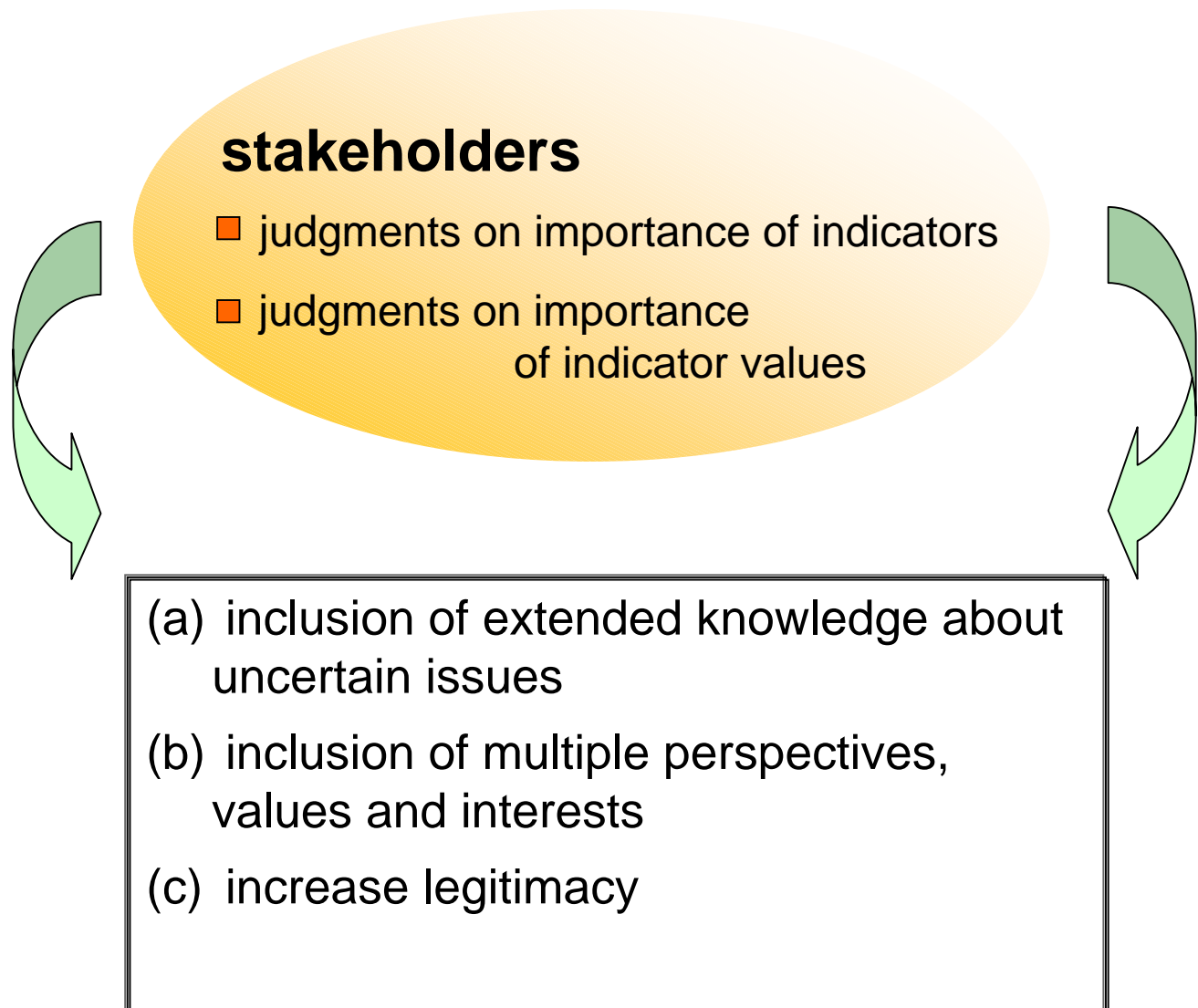
- ...enabling a consistent and transparent comparison among alternatives



EFORMOOD



The role of people in EFORWOOD MCA ...and of stakeholders in particular

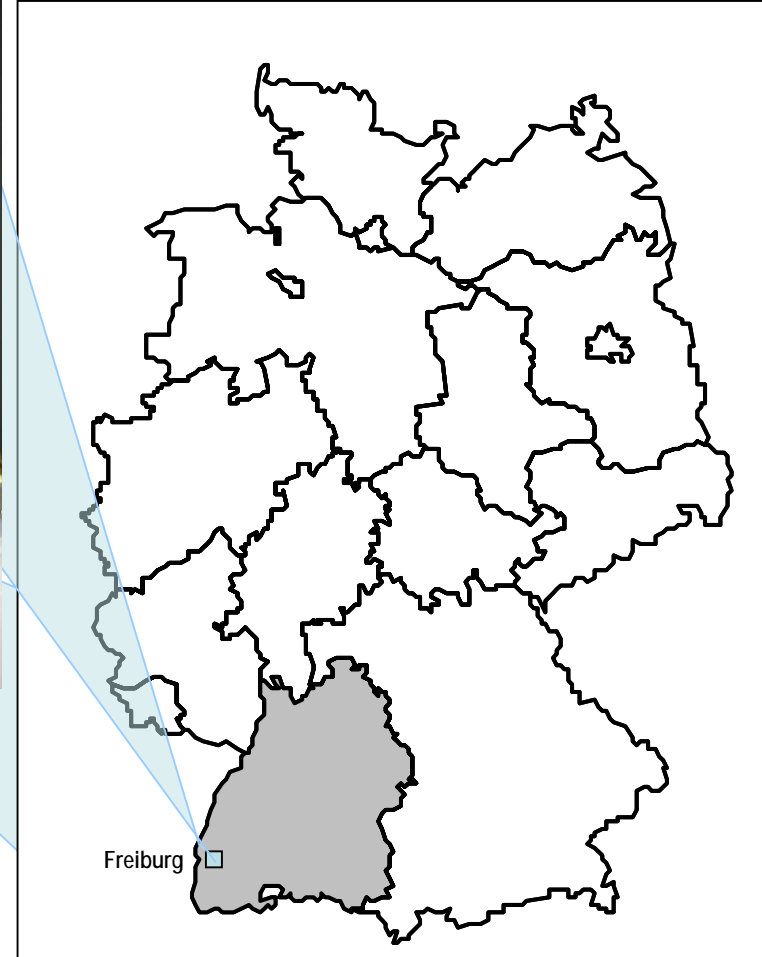


Stakeholder Workshop Baden-Württemberg

14 September 2007



13 stakeholder of regional FWC









Objectives of the workshop

- **testing** MCA methods & software
- getting **feedback**
- **learning** about stakeholder perceptions
- **developing** the approach and the tool further
- **with an informed audience**
- **in a real-life context**
 - FWCs from Baden-Württemberg



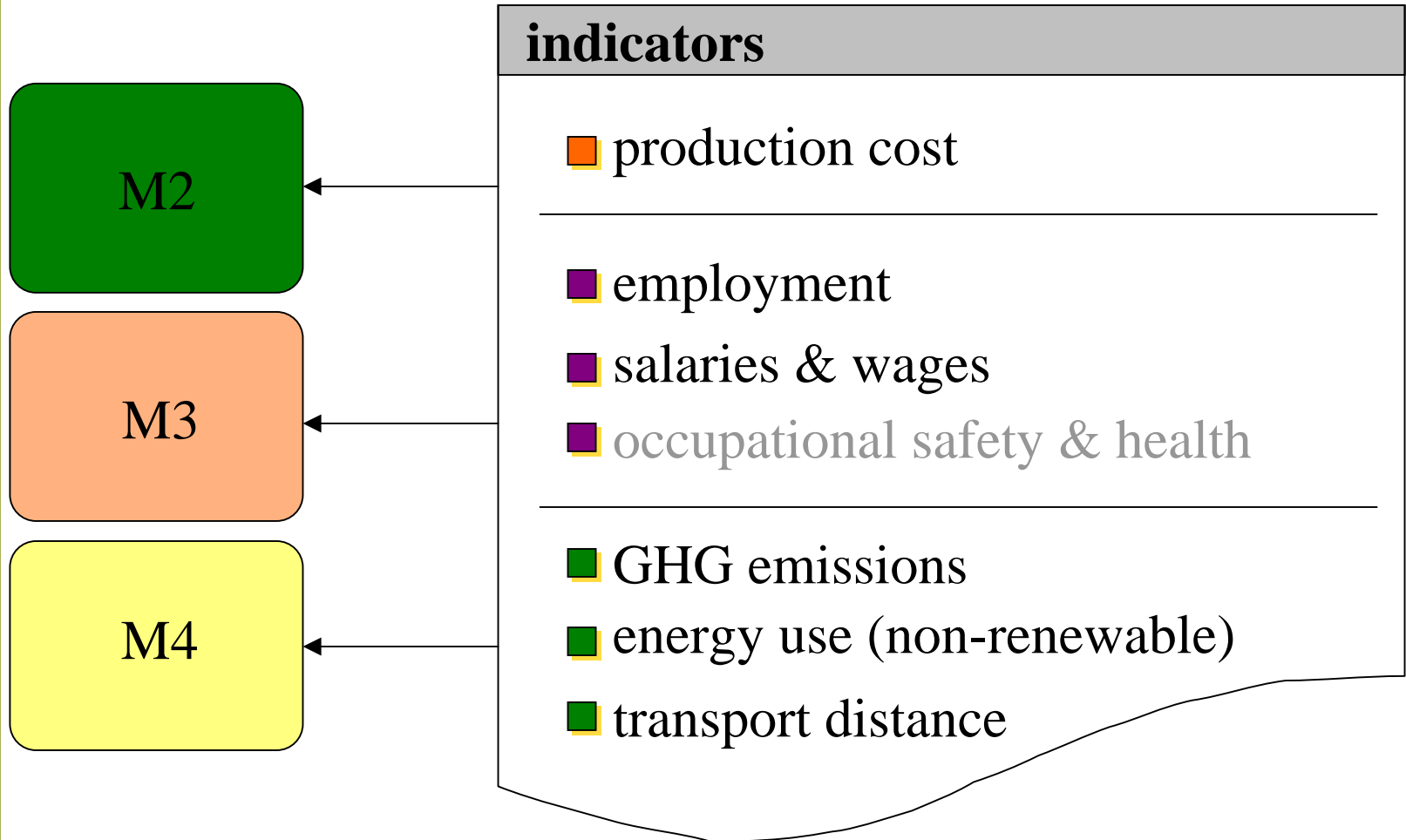
Alternative FWCs in BW

	FWC 1	FWC 2	FWC 3
	 	 	 
Module 2 Forest management	natural regeneration	natural regeneration	planting
Module 3 forest to industry	motor-manual harvesting long logs	semi-mechanized harvesting short logs	fully-mechanized harvesting short logs
Module 4 industry	small local sawmill (log frame)	large regional sawmill (sawline)	large regional sawmill (sawline)



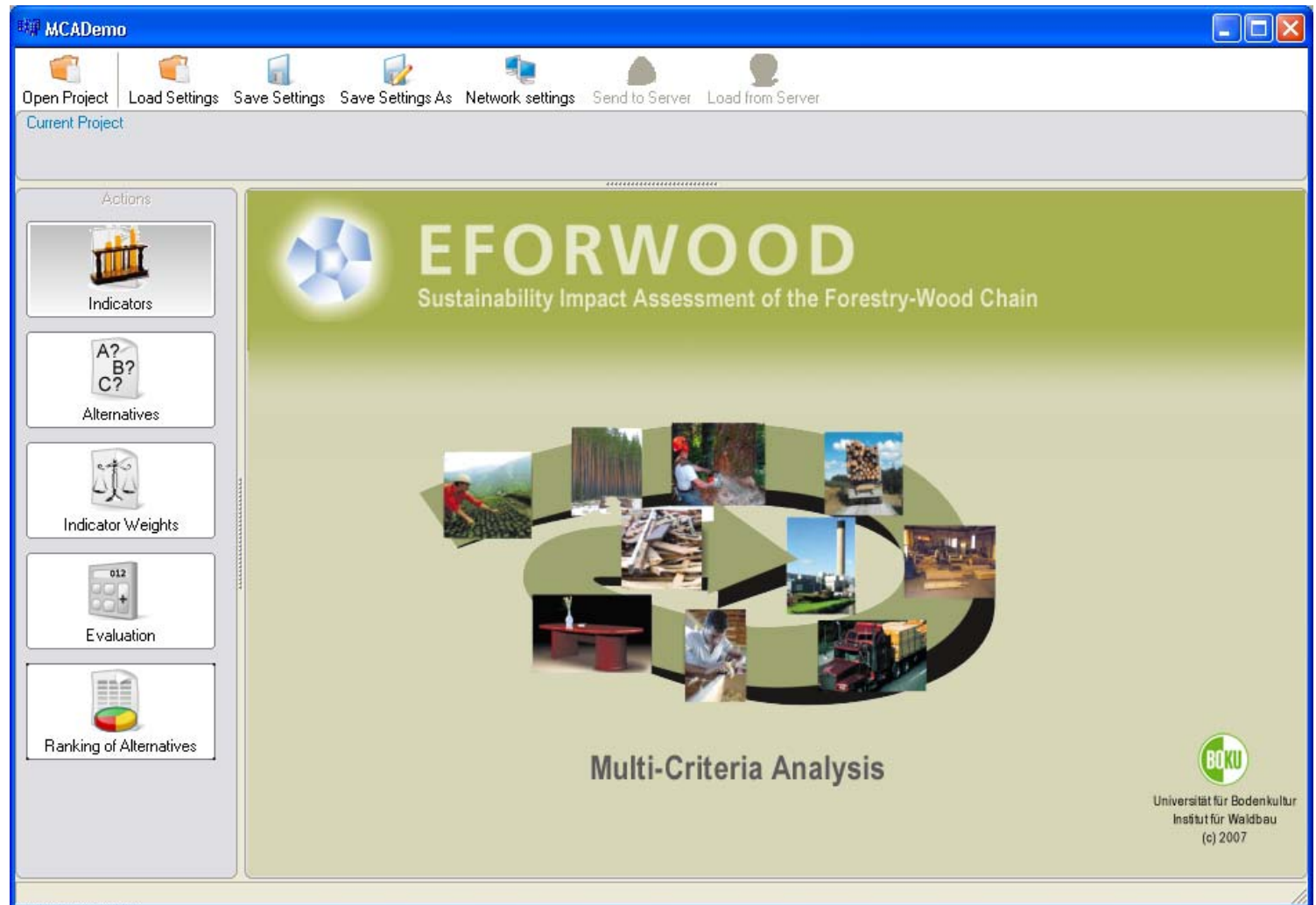


indicators for the BW spruce test chains



MCA software prototype

client-server architecture



weighting of indicators

MCA for EFORWOOD - Group mode

Open Project | Load Settings | Save Settings | Save Settings As | Network settings | Send to Server | Load from Server

Current Project
Evaluation of FWCs in Baden-Württemberg
Standard

Actions

- Indicators
- Alternatives
- Indicator Weights**
- Evaluation
- Ranking of Alternatives

Set weights for...
☒ Total Chain ☐ Modules

CO2 emission
 CO2 emission, kg of CO2 equivalents per m³

Graphical Change mode

low high

Total chain

Show weights
☒ absolut ☐ relative

Reset weights
 Show indicator values

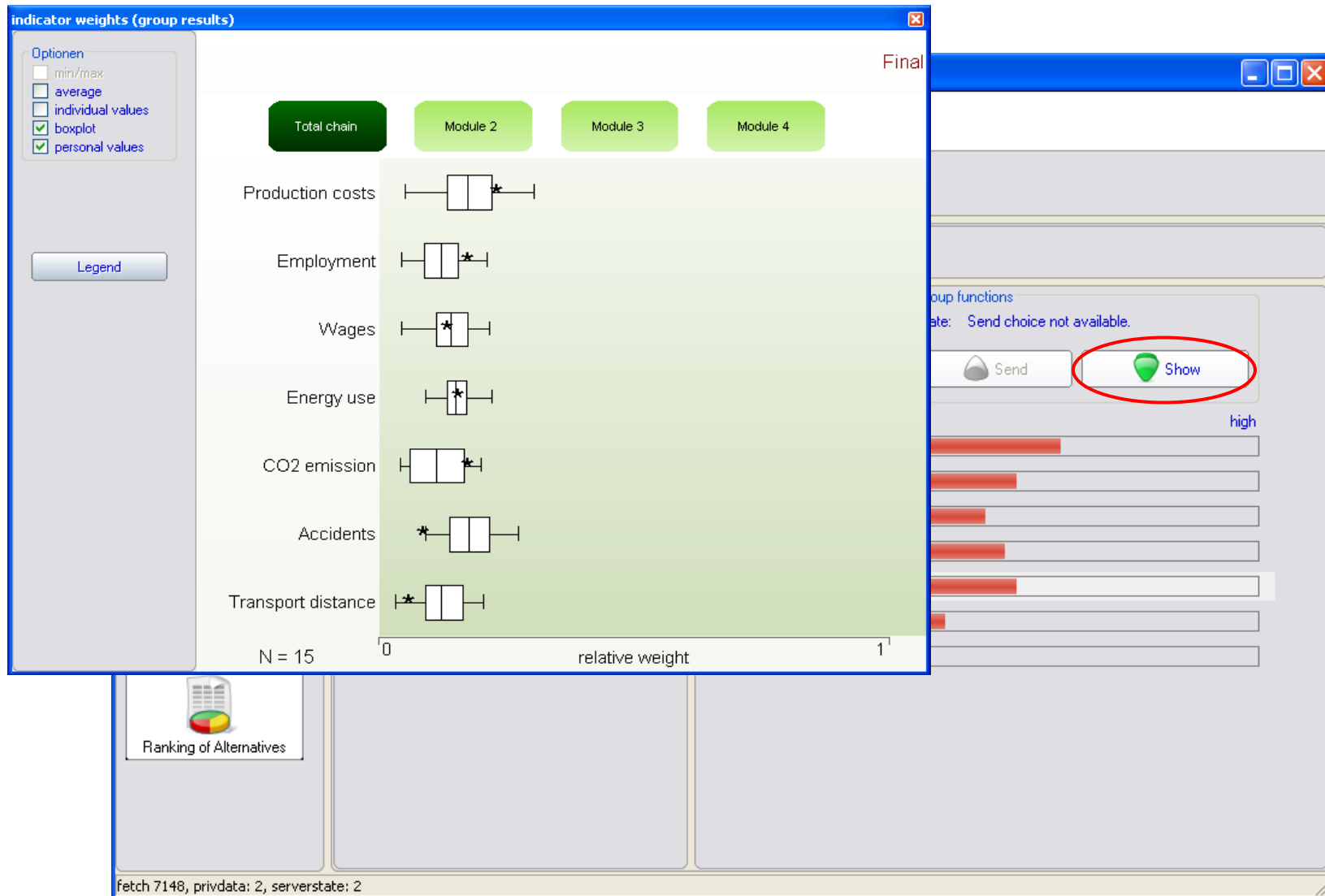
Group functions
 State: Send choice available (Lap 1!)

Send Show

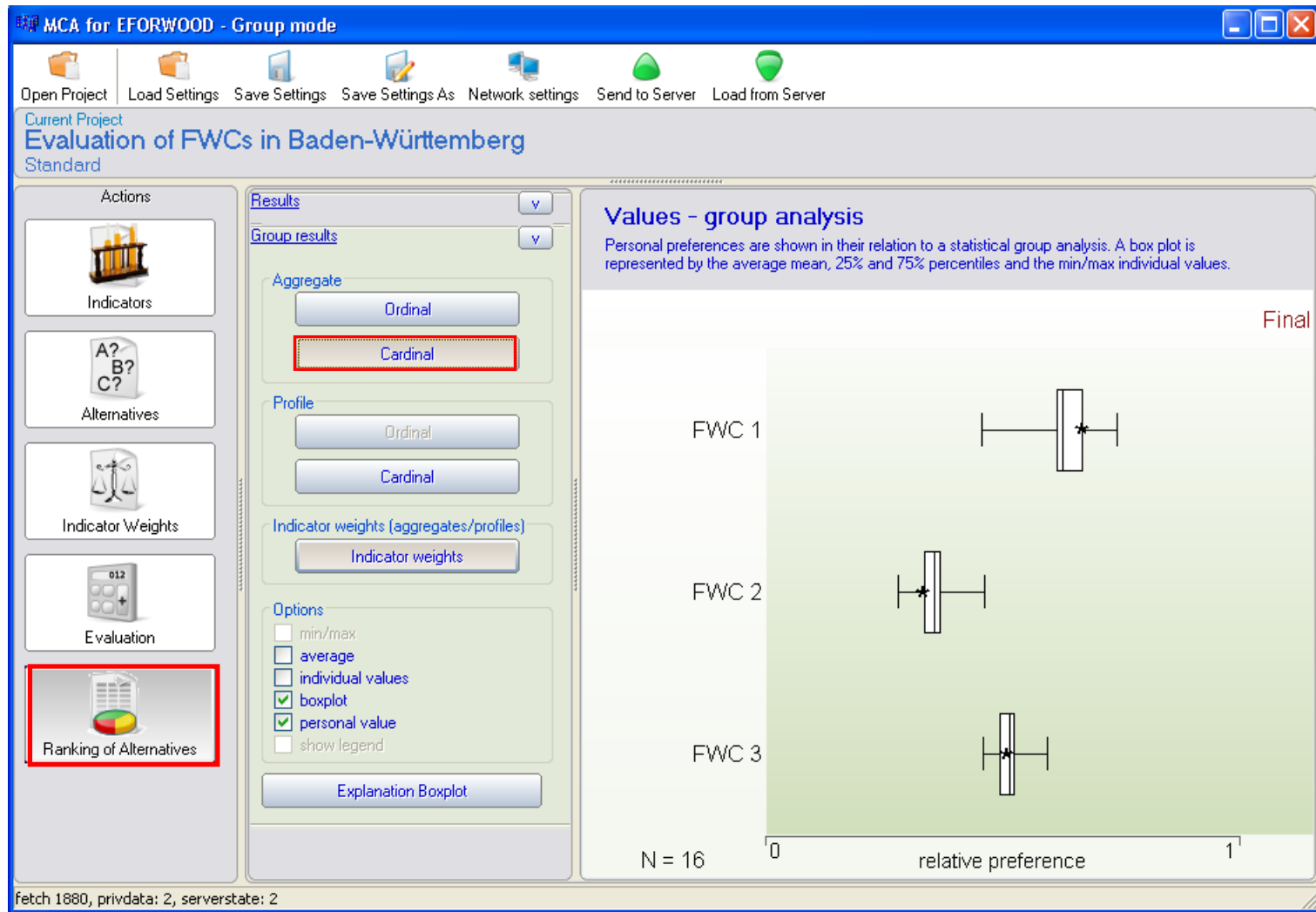
	low	high
Production costs	<div></div>	
Employment	<div></div>	
Wages	<div></div>	
Energy use	<div></div>	
CO2 emission	<div></div>	
Accidents	<div></div>	
Transport distance	<div></div>	

fetch 7176, privdata: 2, serverstate: 2

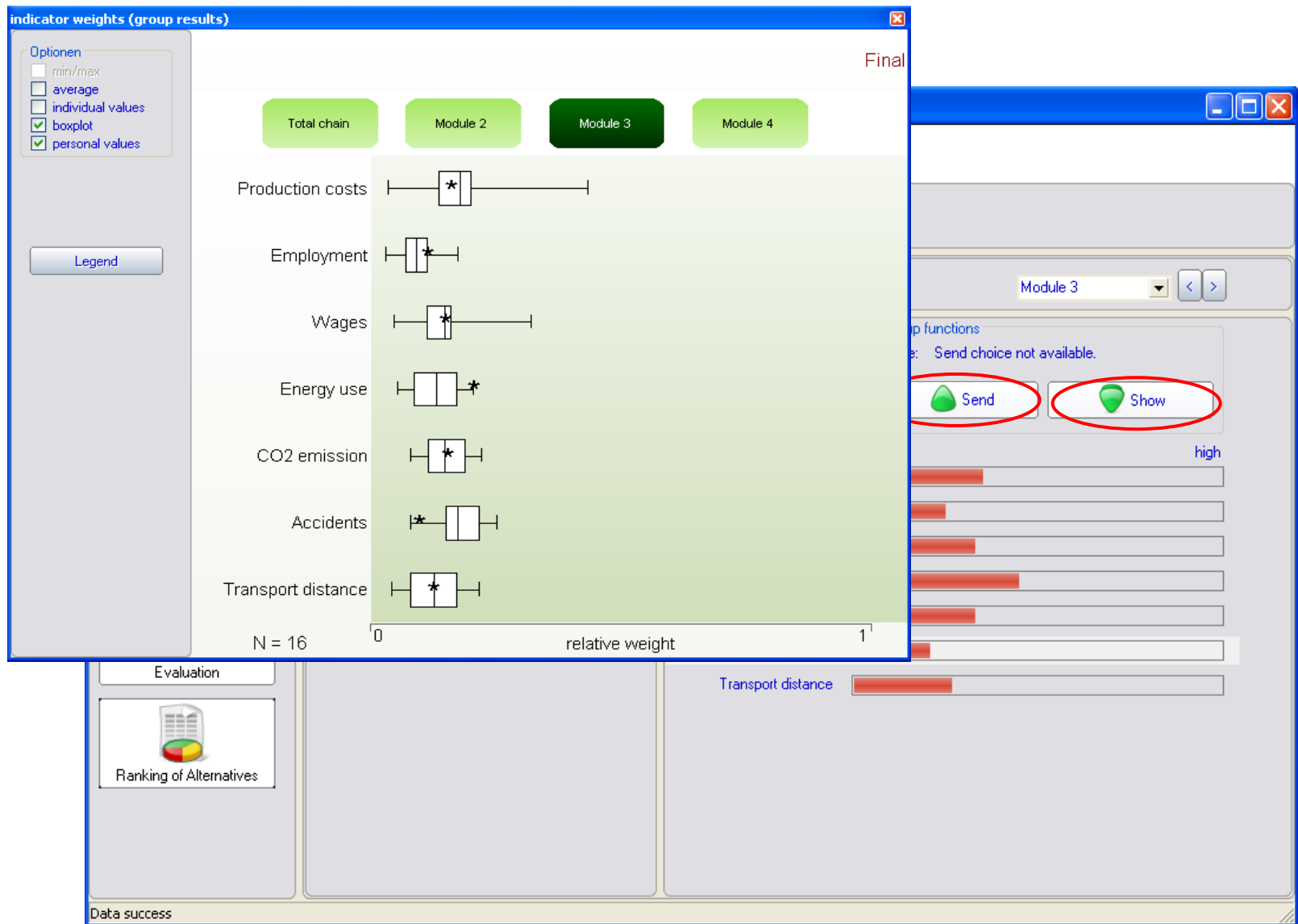
group results



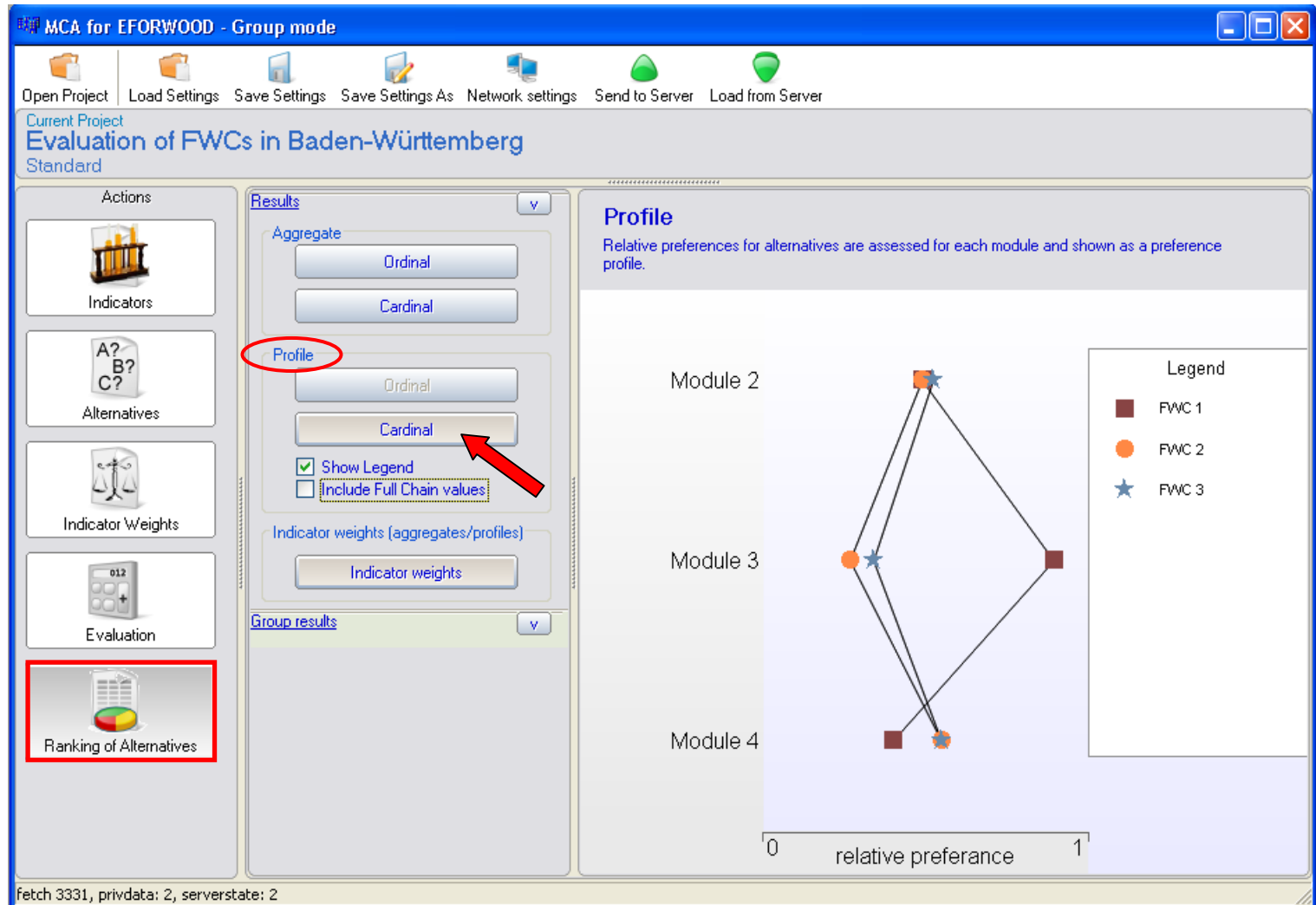
ranking of alternatives



Module-specific weighting



ranking profiles

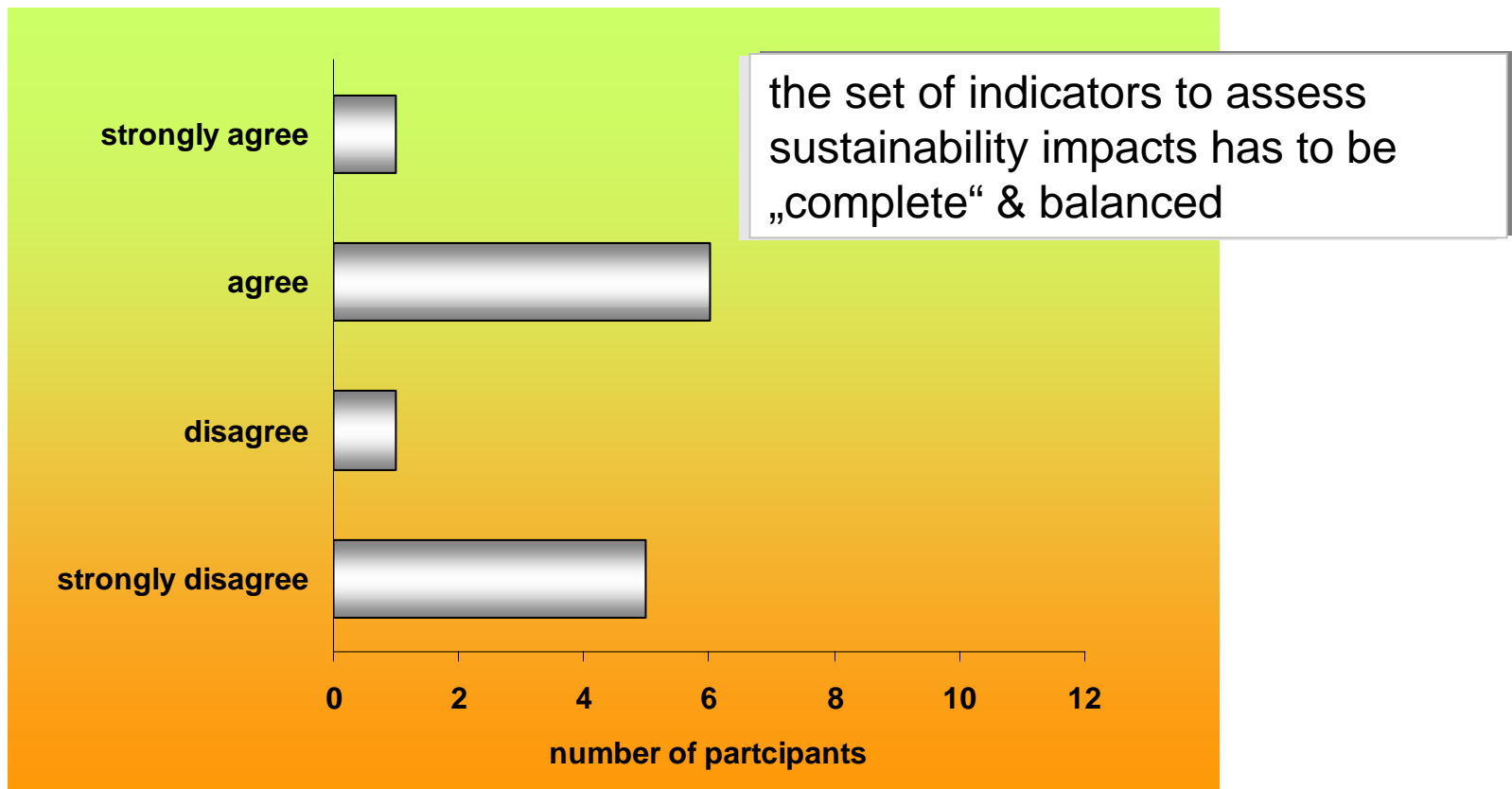


some feedback ...



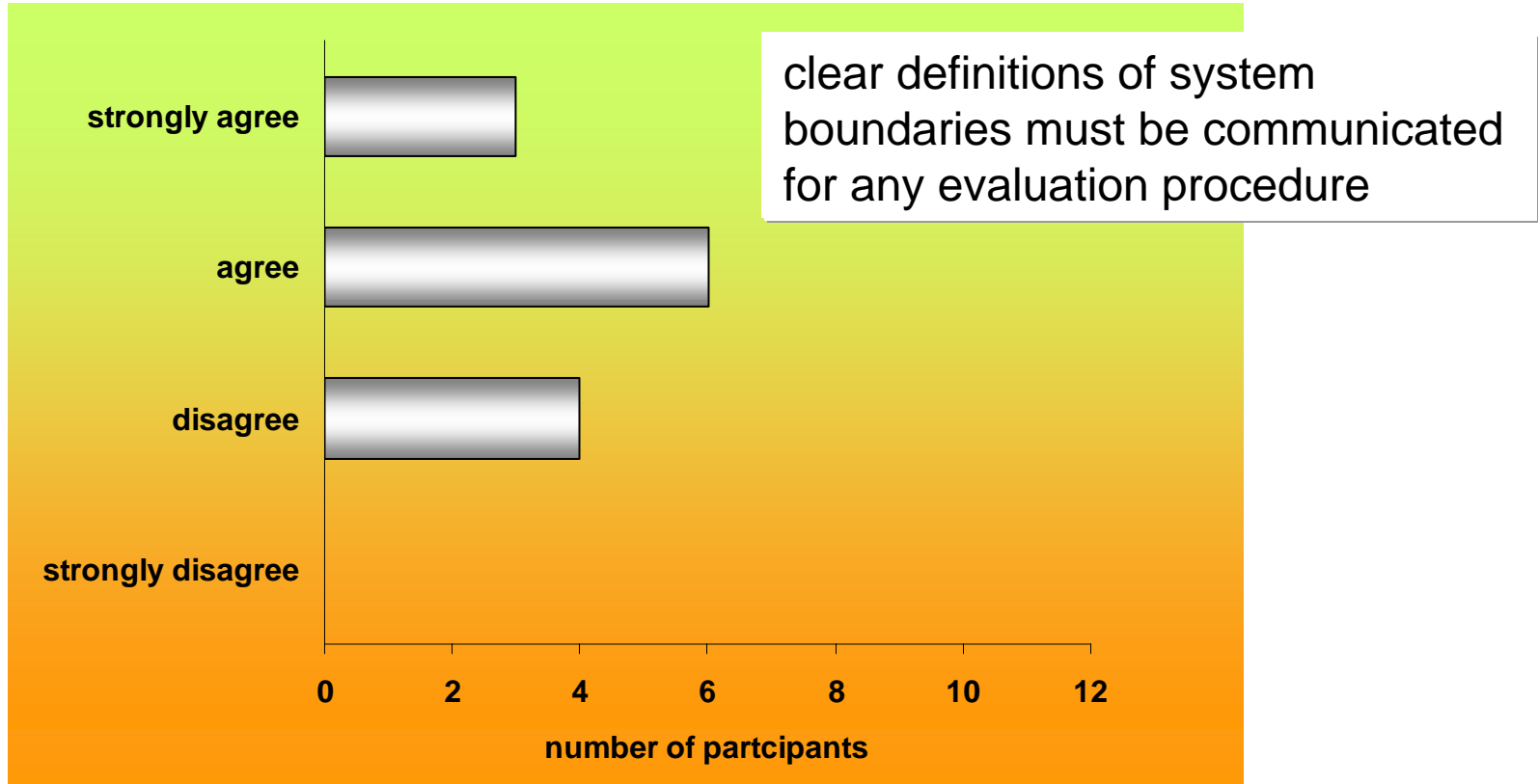
The used set of indicators was sufficient to evaluate the sustainability of FWCs

questionnaire



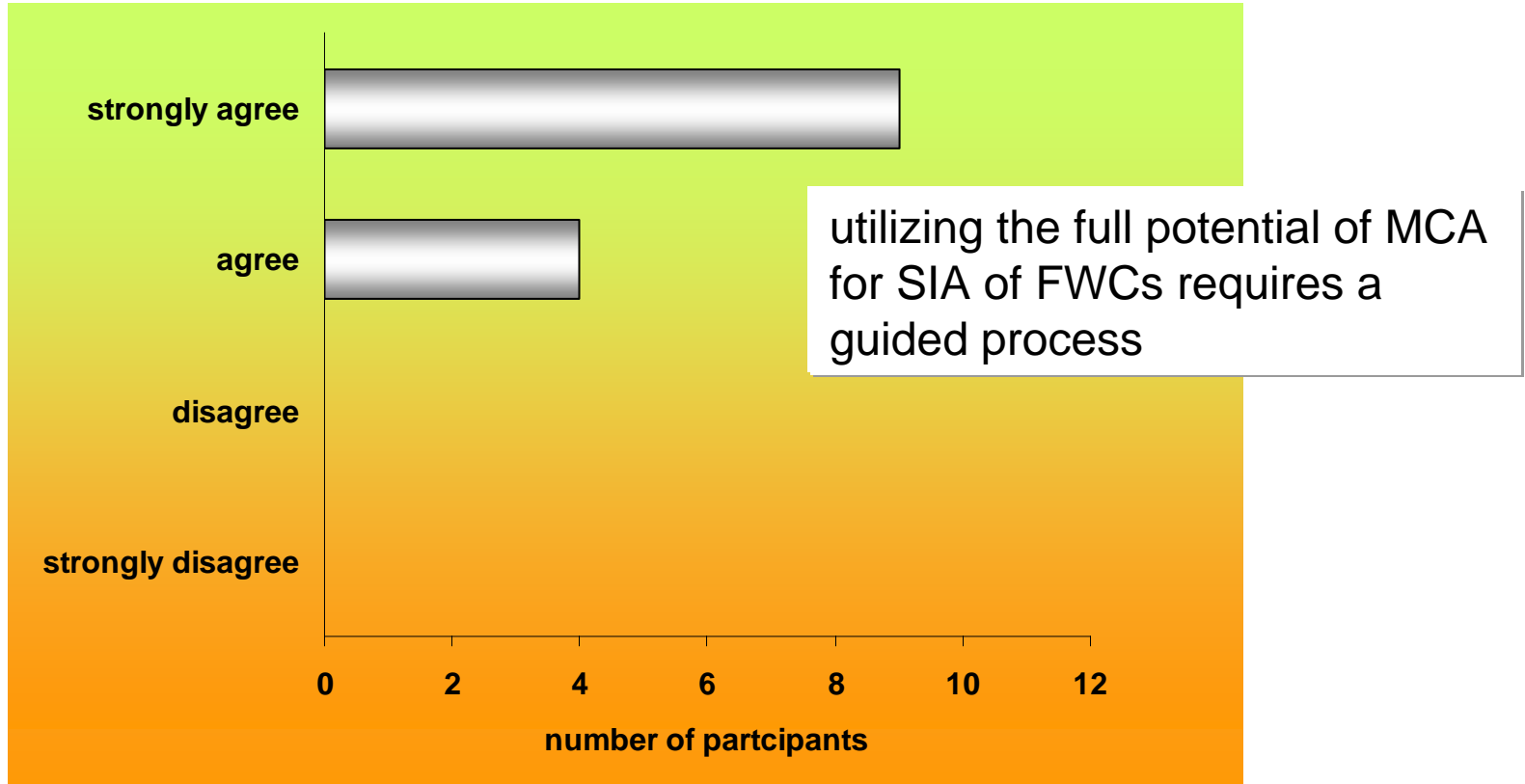
The presented alternative FWCs are relevant examples for Baden-Württemberg

questionnaire



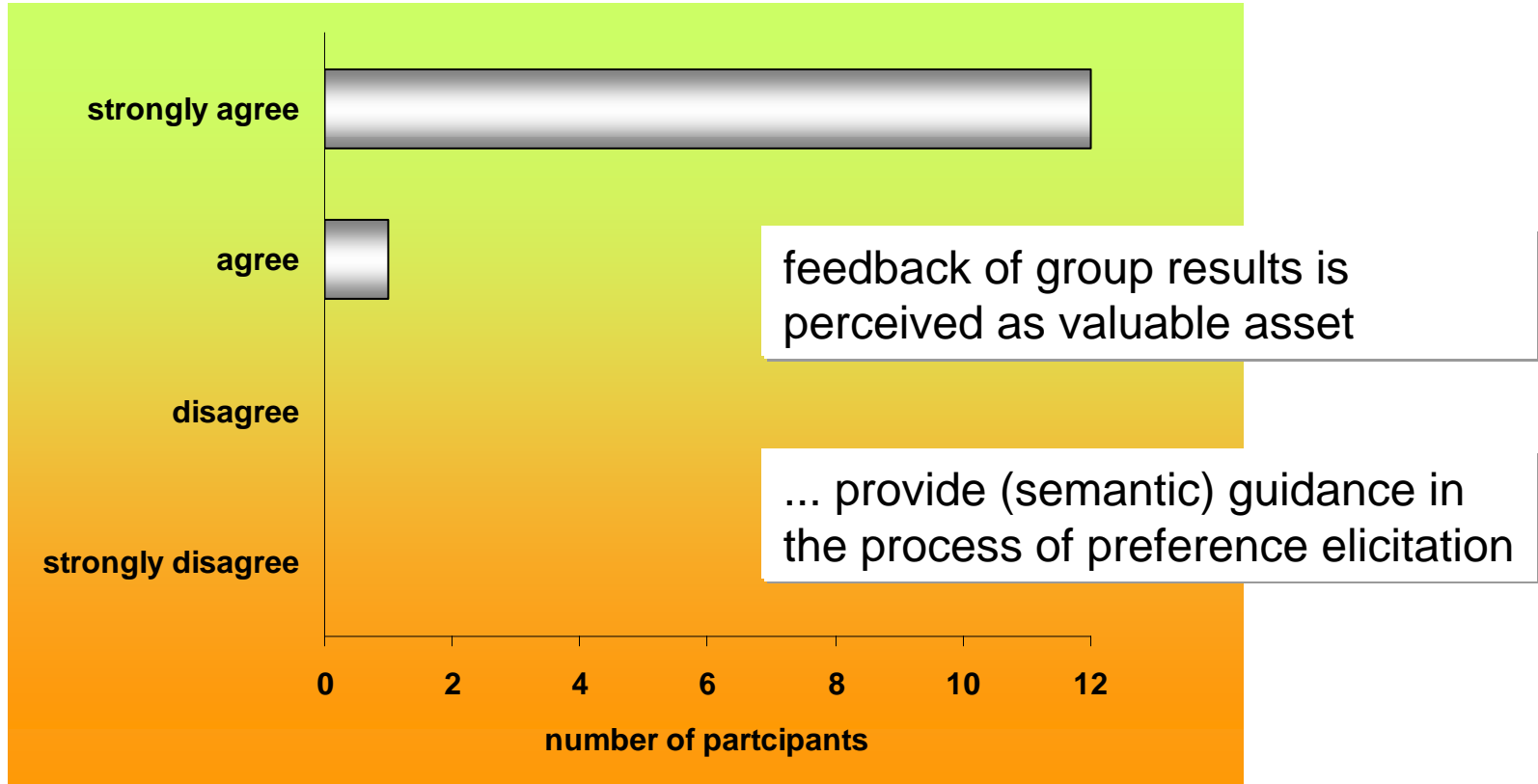
Applying MCA-methods in sustainability assessment is a useful approach

questionnaire



The software appears user-friendly and easy to use

questionnaire



conclusions

stakeholder acceptance of MCA as a tool for SIA will be enhanced by:

- avoiding blackboxes
 - e.g. too many fixed assumptions
- creating an informed decision environment
- providing decision support, not decision making



Thank You!

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the ambitious participants of the BW
workshop!

&

Colleagues from ALUFR und FVA

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