Netherlands Environmental Assessment Agency

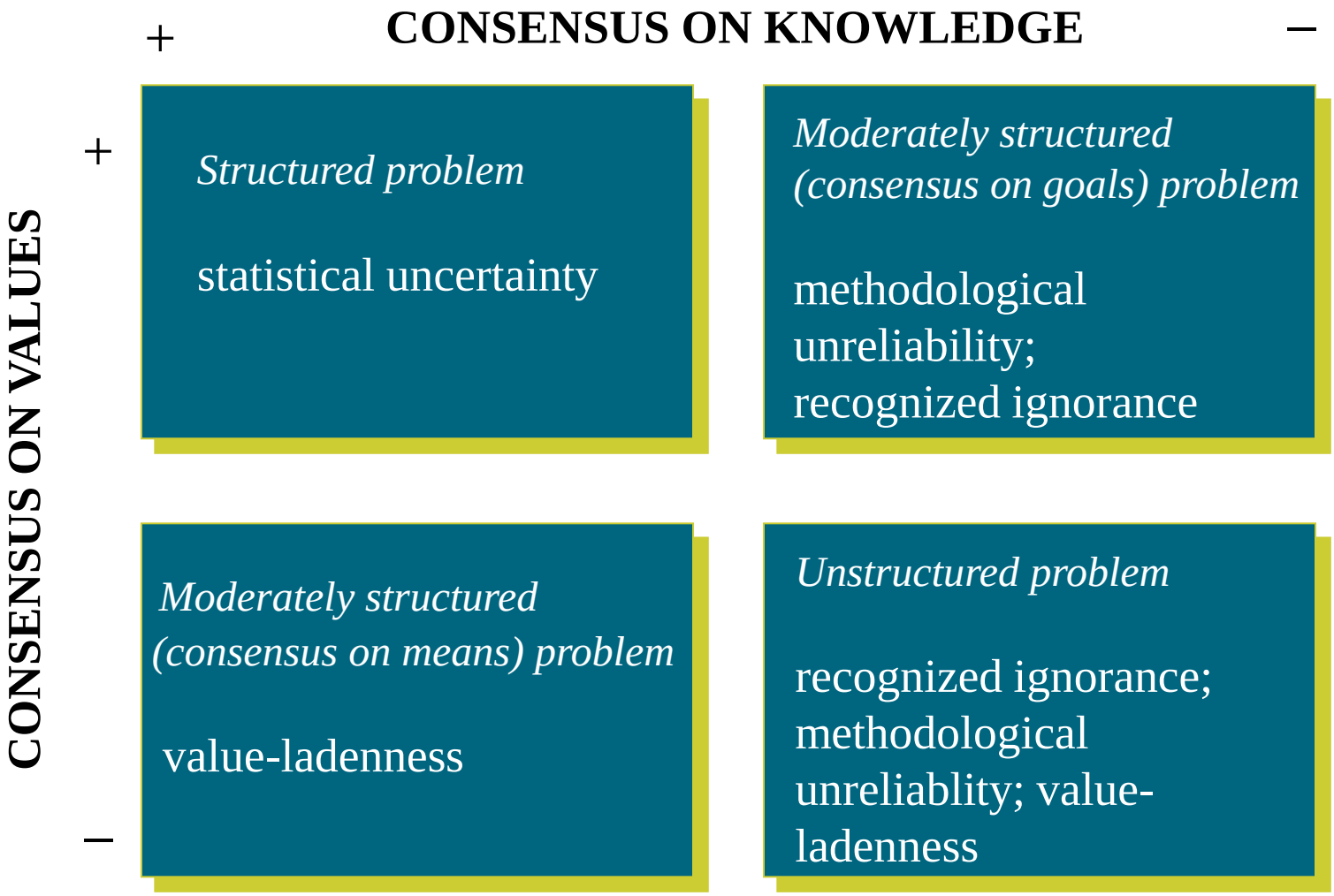
Guidances: lessons from PBL

CIRCLE2 Stockholm, 11 November 2010

Arthur Petersen

UNCERTAINTY MATRIX			Level of uncertainty *(from determinism, through probability and possibility, to ignorance)*			Nature of uncertainty		Qualification of knowledge base (backing)			Value-ladenness of choices		
Location ↓			Statistical uncertainty (range+ chance)	Scenario uncertainty (range as 'what-if' option)	Recognized ignorance	Knowledge-related uncertainty	Variability-related uncertainty	Weak –	Fair 0	Strong +	Small –	Medium 0	Large +
Context	Ecological, technological, economic, social and political representation												
Expert judgement		Narratives; storylines; advices											
Model	**Model structure**	Relations											
	Technical model	Software & hardware implementation											
	Model parameters												
	Model inputs	Input data; driving forces; input scenarios											
Data (in general sense)	Measurements; monitoring data; survey data												
Outputs		Indicators; statements											

Relevant uncertainties & types of policy problems



Foci and key issues in knowledge quality assessment (ref. 9)

Foci	Key issues
Problem framing	Other problem views; interwovenness with other problems; system boundaries; role of results in policy process; relation to previous assessments
Involvement of stakeholders	Identifying stakeholders; their views and roles; controversies; mode of involvement
Selection of indicators	Adequate backing for selection; alternative indicators; support for selection in science, society, and politics
Appraisal of knowledge base	Quality required; bottlenecks in available knowledge and methods; impact of bottlenecks on quality of results
Mapping and assessing relevant uncertainties	Identification and prioritisation of key uncertainties; choice of methods to assess these; assessing robustness of conclusions
Reporting uncertainty information	Context of reporting; robustness and clarity of main messages; policy implications of uncertainty; balanced and consistent representation in progressive disclosure of uncertainty information; traceability and adequate backing

Lessons from PBL Guidance application

1. Not only focus on the researcher: also nurture tolerance for uncertainty among decision makers
2. Consider uncertainty information as knowledge, but do not focus only on the uncertainty
3. Recognizing ignorance is often more important than characterizing variability
4. Communicate uncertainty in terms of societal/political risks

Lessons from PBL Guidance application

5. Determine “best use before” date of policy (review clause)
6. Perform “extended peer reviews” on knowledge inputs
7. Maintain space for dissidents
8. Make use of best practices in uncertainty communication
9. Institutionalize attention for uncertainty (guidances, courses, professional roles, ...) – it involves more than producing the guidance document!