

# The Rhine. No more salmon, stranding ships?

Looking for thresholds in management regimes

18-03-2013. Erik van Slobbe



# From snow to rainfed?



# Concerns about distant future

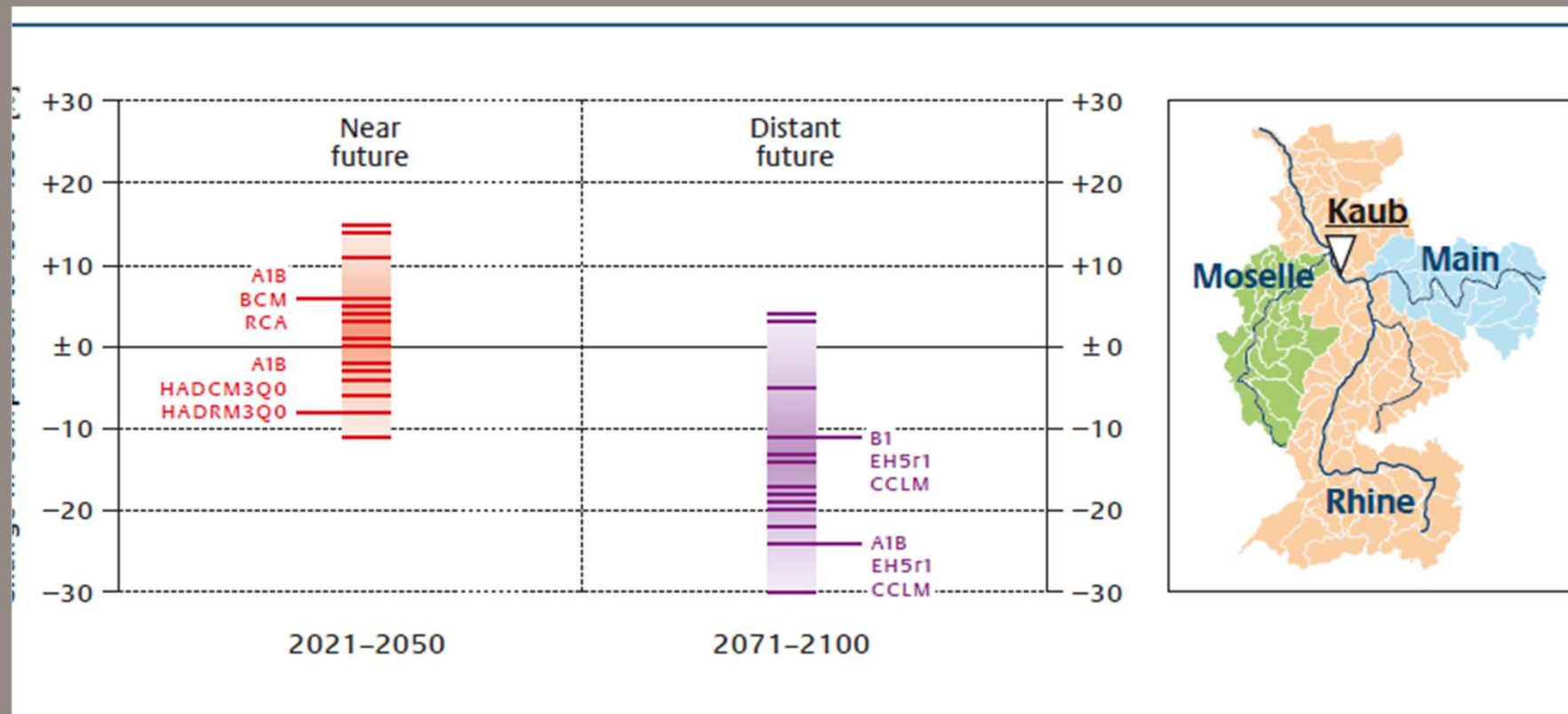


Figure 2: Average changes of the low water parameter NM7Q (lowest 7 day average value) at the Kaub gauge during the hydrological summer half-year (May–October). Ensemble of about 20 discharge projections (short lines) as well as the boundaries of scenario corridors (long lines) and the representative simulations.



# Thresholds in management regime ?



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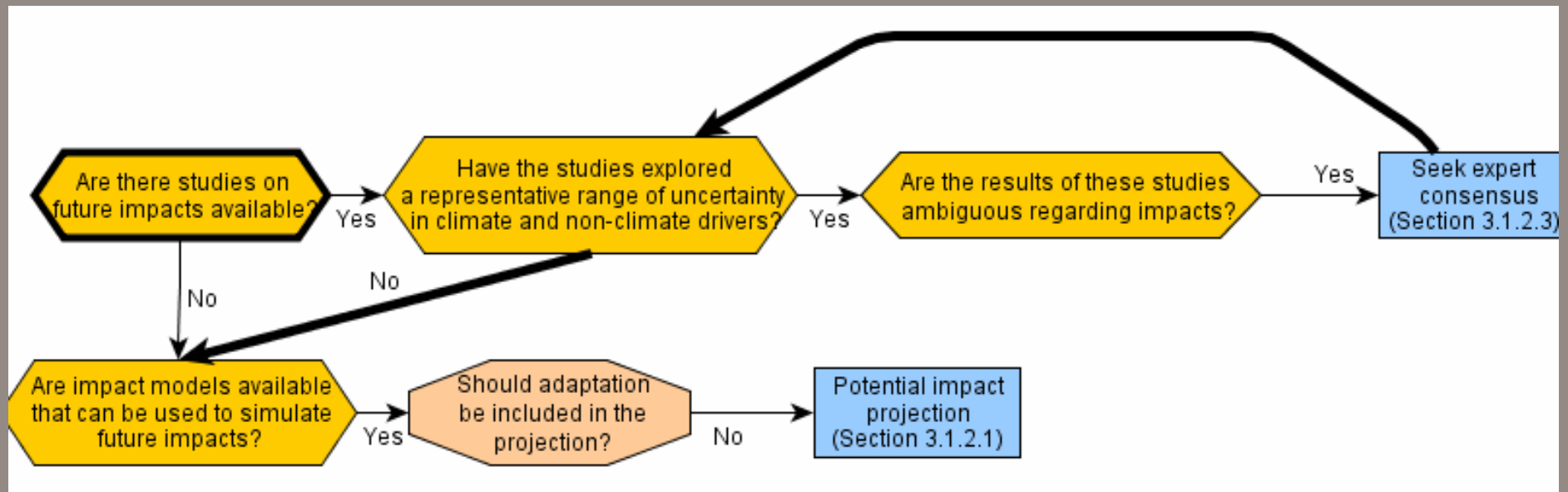
# Questions

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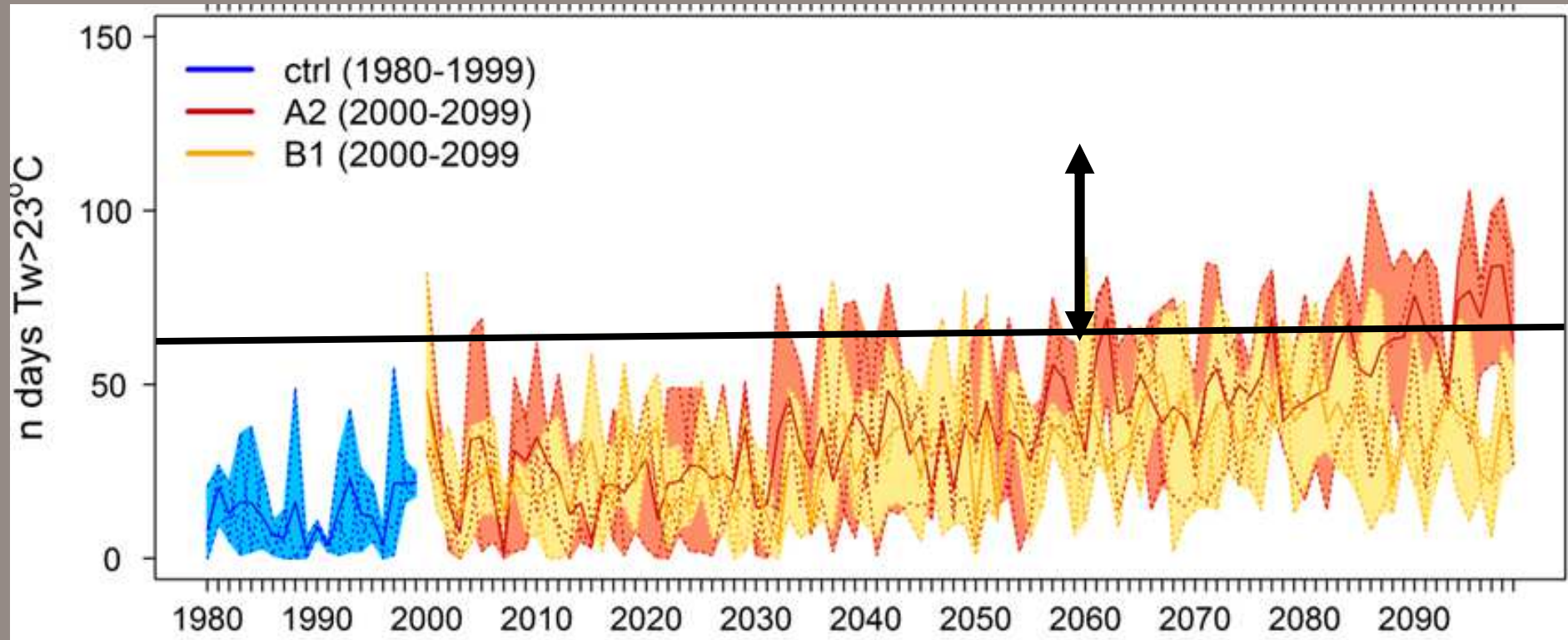
1. When will thresholds in inland shipping and salmon reintroduction be crossed?
2. What options do water users have?
3. What methods are used?



# Assessment: decision pathway

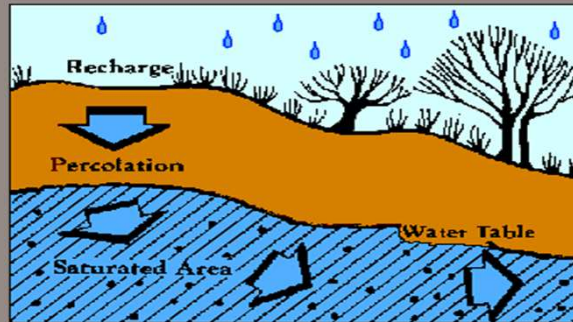


# Transient projection water temperature



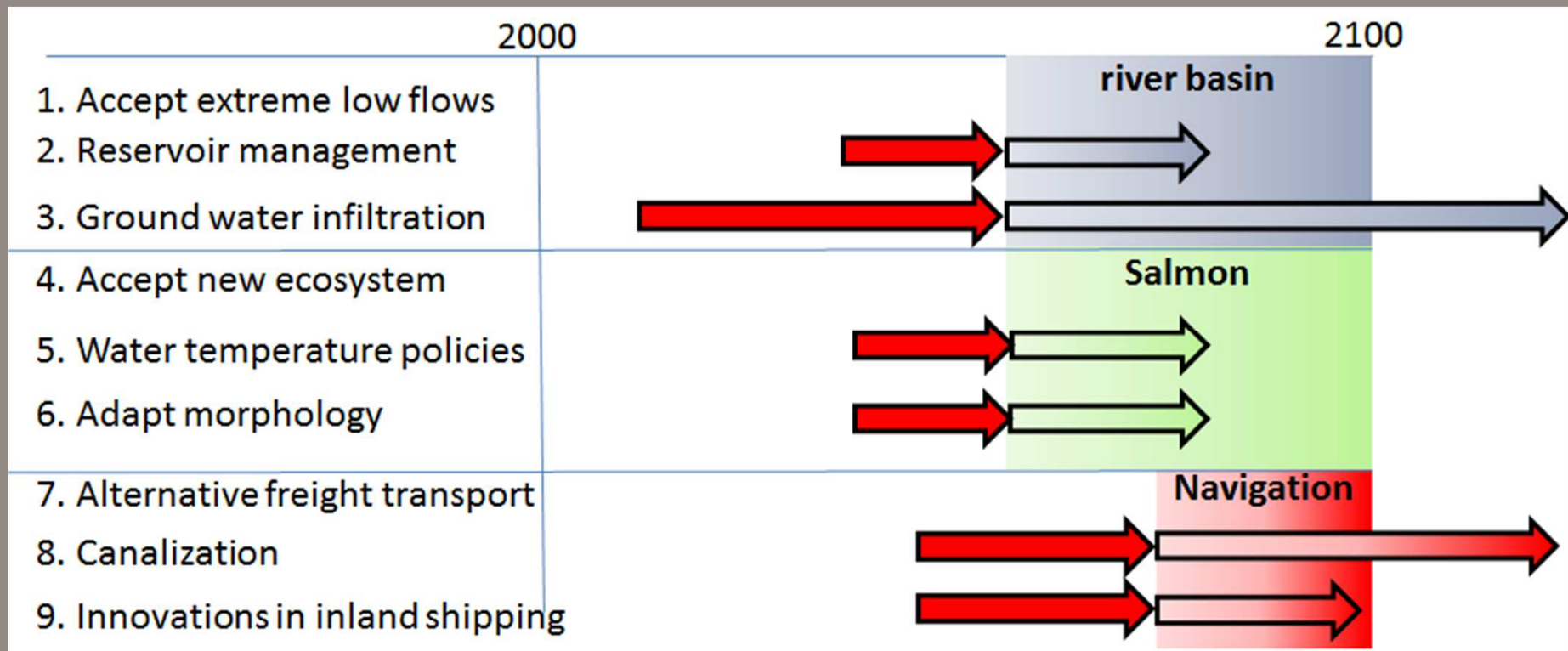


# Adaptation Options, Rhine Conference on Adaptation

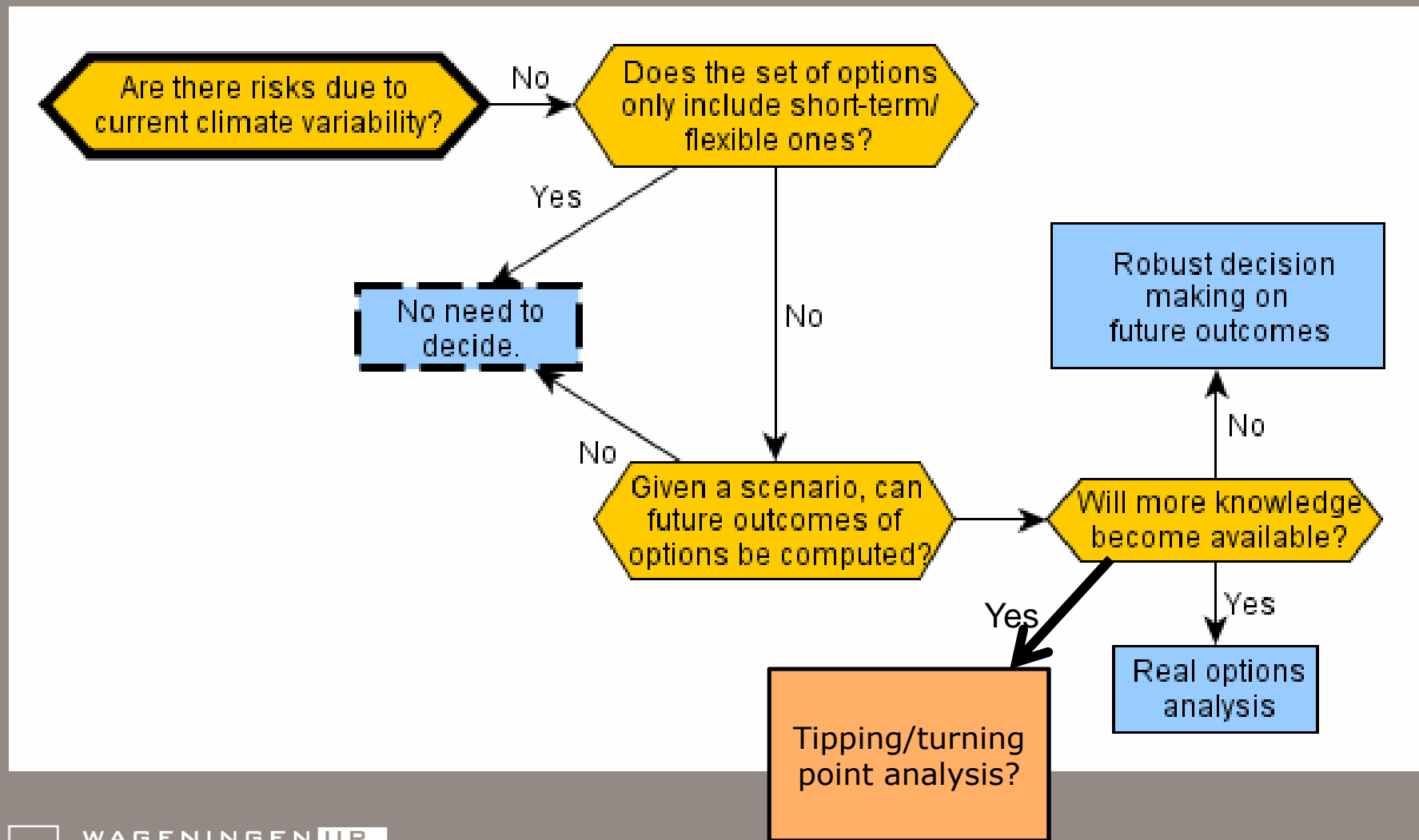




# Timing of adaptation options



# Option appraisal: decision pathway



# Discussion

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- From linear planning to the garbage can
- From 'predict and act' to 'monitor and adapt'
- Deep uncertainty; adaptation pathways



