



ICES perspective Operationalising Ecosystem Approach Mark Dickey-Collas

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Science for sustainable seas

What is ICES?

International Council for the Exploration of the Sea



- An Intergovernmental Marine Science Organisation
- A science network
- A knowledge provider to policy formers & decision makers
- A world leading marine data centre



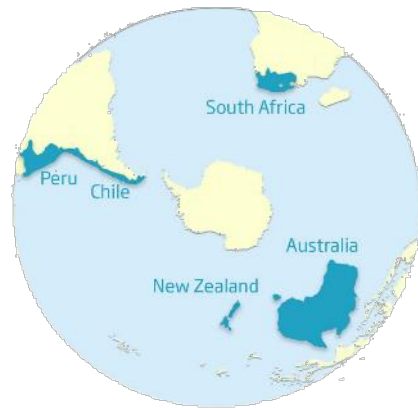
Strategic partners



PICES



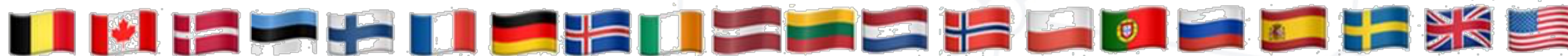
ARCTIC COUNCIL



A science network

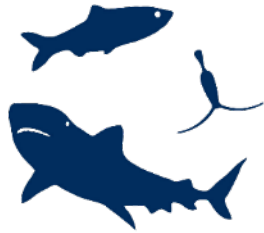
A global scientific community

- **4000** scientists
- from nearly **60** countries
- **1500** active experts annually
- in over **160** working groups & workshops



Diverse science across

Dynamics of Ecosystems



Climate Change



Human Dimension



Impacts on Ecosystems



Resource management



Integrated Assessments



Observation and Monitoring



ICES experienced knowledge broker between science & policy or management



Environmental legislation

Management targets

Monitoring methods

Fishing and fish



Impacts of humans

Trade-off analysis

Environmental change

Conservation policy

Ecosystem based management – key words



management of human activities

sustainable use

regional

trade-offs

optimize benefits among diverse societal goals

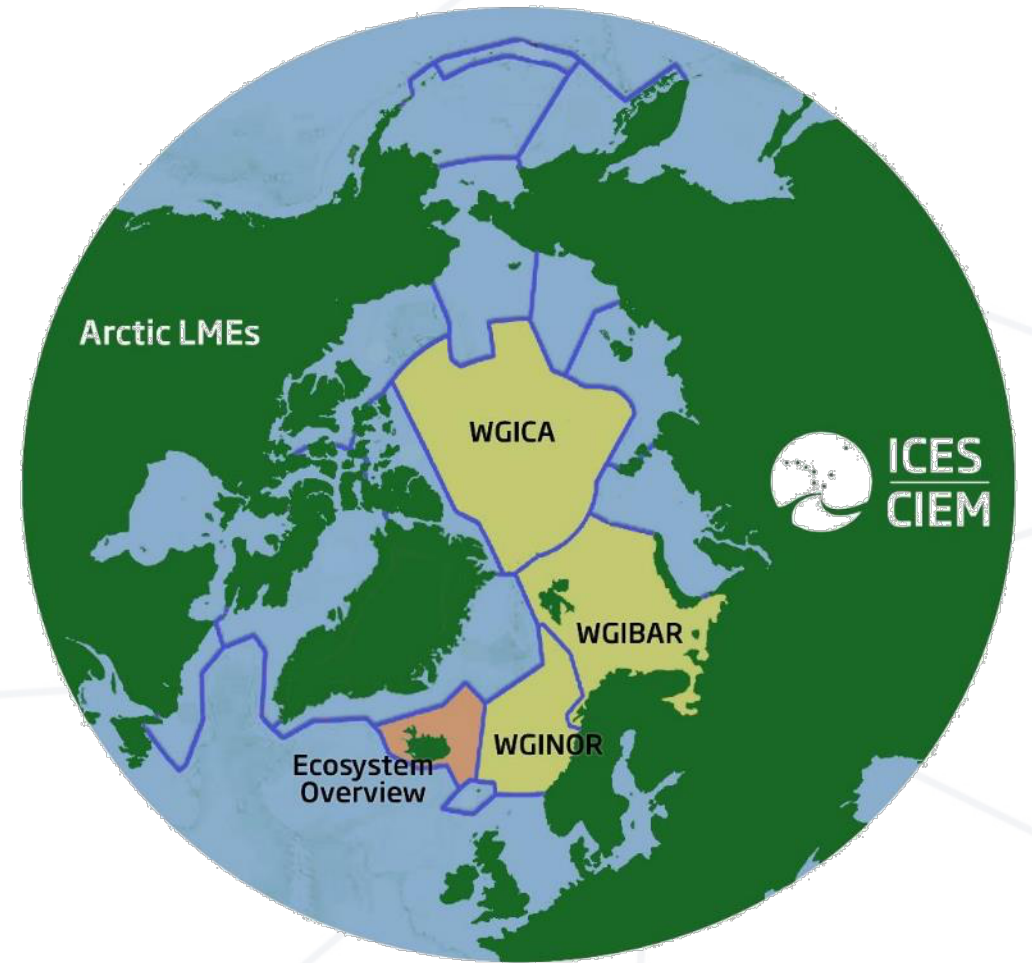
achievement of good environmental status

consideration of collective pressures

stewardship for future generations



ICES and Arctic EBM



Activities

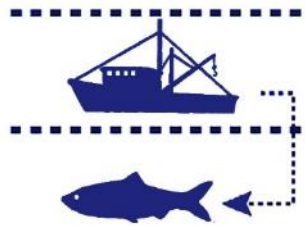
Integrated ecosystem assessments Ecosystem overviews Fisheries advice (including Greenland)

Vulnerable marine areas Invasive species Human Dimension

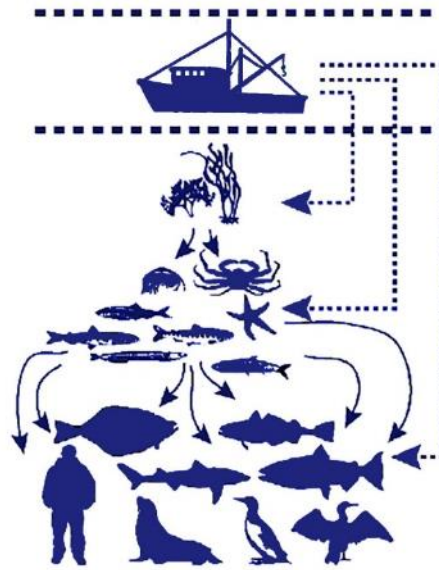
Shifting arena for ICES advice & science

EBFM

single pressure,
single subject,
direct goods

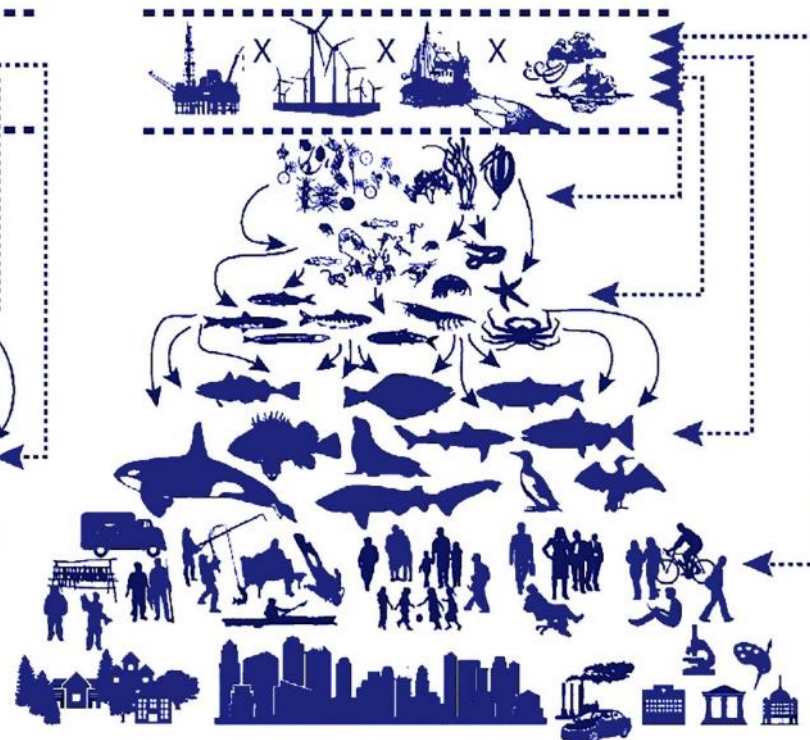


single pressure,
multiple subjects,
direct goods



EBM

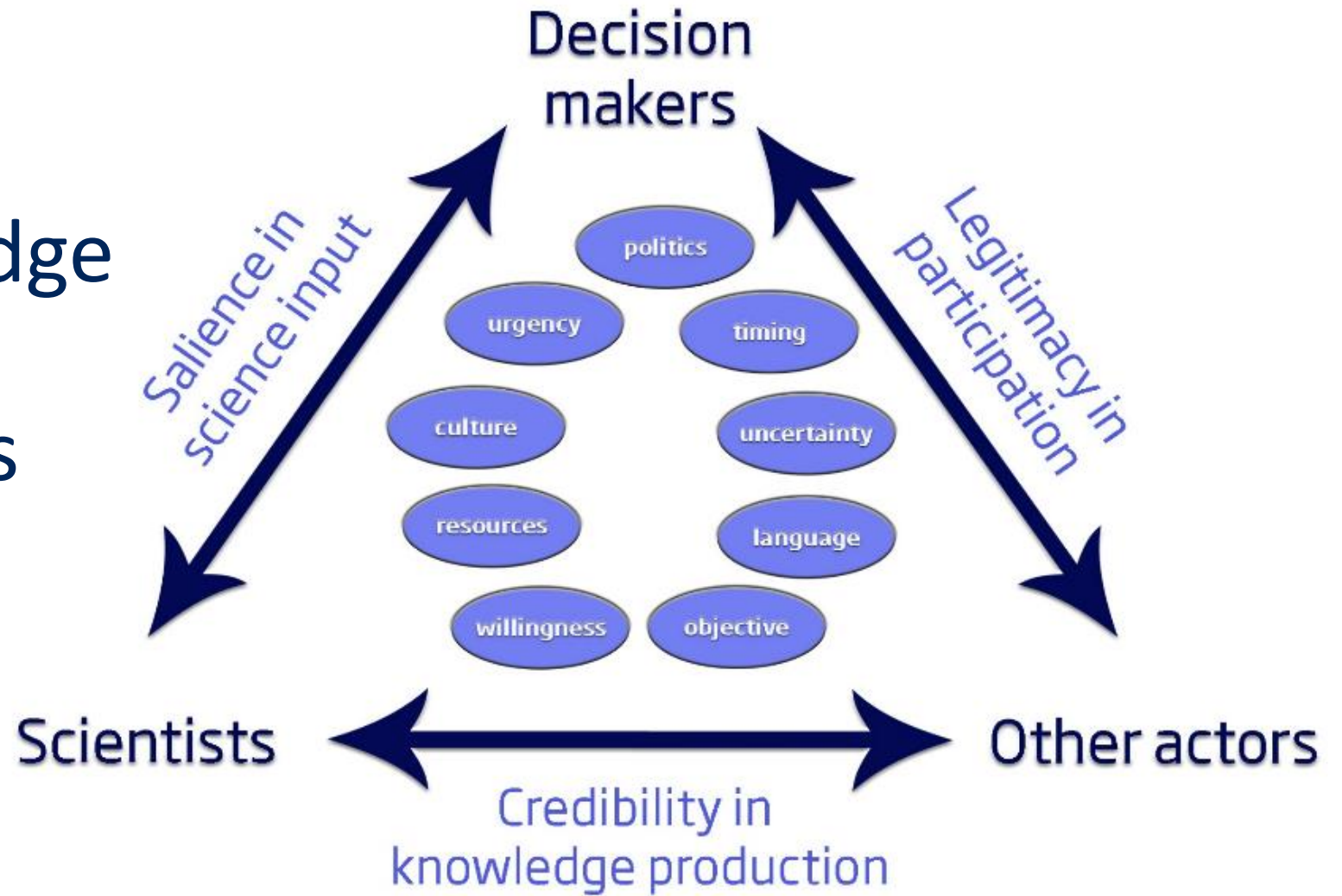
multiple pressures,
multiple subjects,
web of goods & services



← direct interactions

→ direct + indirect interactions

Study the knowledge & management system as much as the ecosystem



Röckmann et al 2015

Engaging as a researcher in EBM



- It will take much longer than expected, always frustrating, may not succeed resulting in great pain.
- The dialogue/discourse will challenge our academic training; and we must learn how to work deliberately with what we perceive as imperfection.
- Establish equitable partnerships; listening to others underpins our capacity to connect, build trust, adapt and evolve.
- The drive for simple communication may result in misleading answers but as everyone is always busy, you need to reduce the workload on partners.




Thank you!

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