

Adaptive management



Finlay Bennet

Ian Davies

marinescotland
science

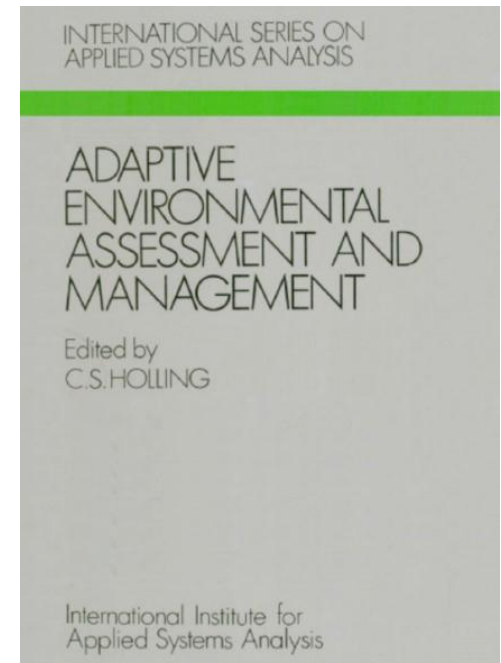
Outline

- Do we need Adaptive Management?
- What is Adaptive Management?
- How are we approaching it in Scotland?



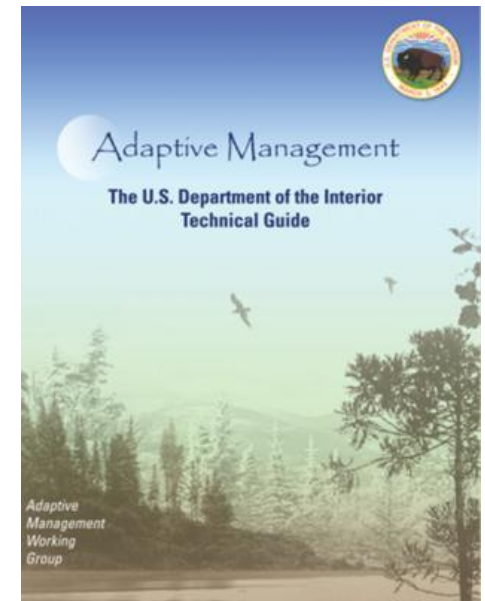
The need for adaptive management

- inertia and paralysis
- is qualitative discourse really informative?
- gap between science and society
- natural resilience

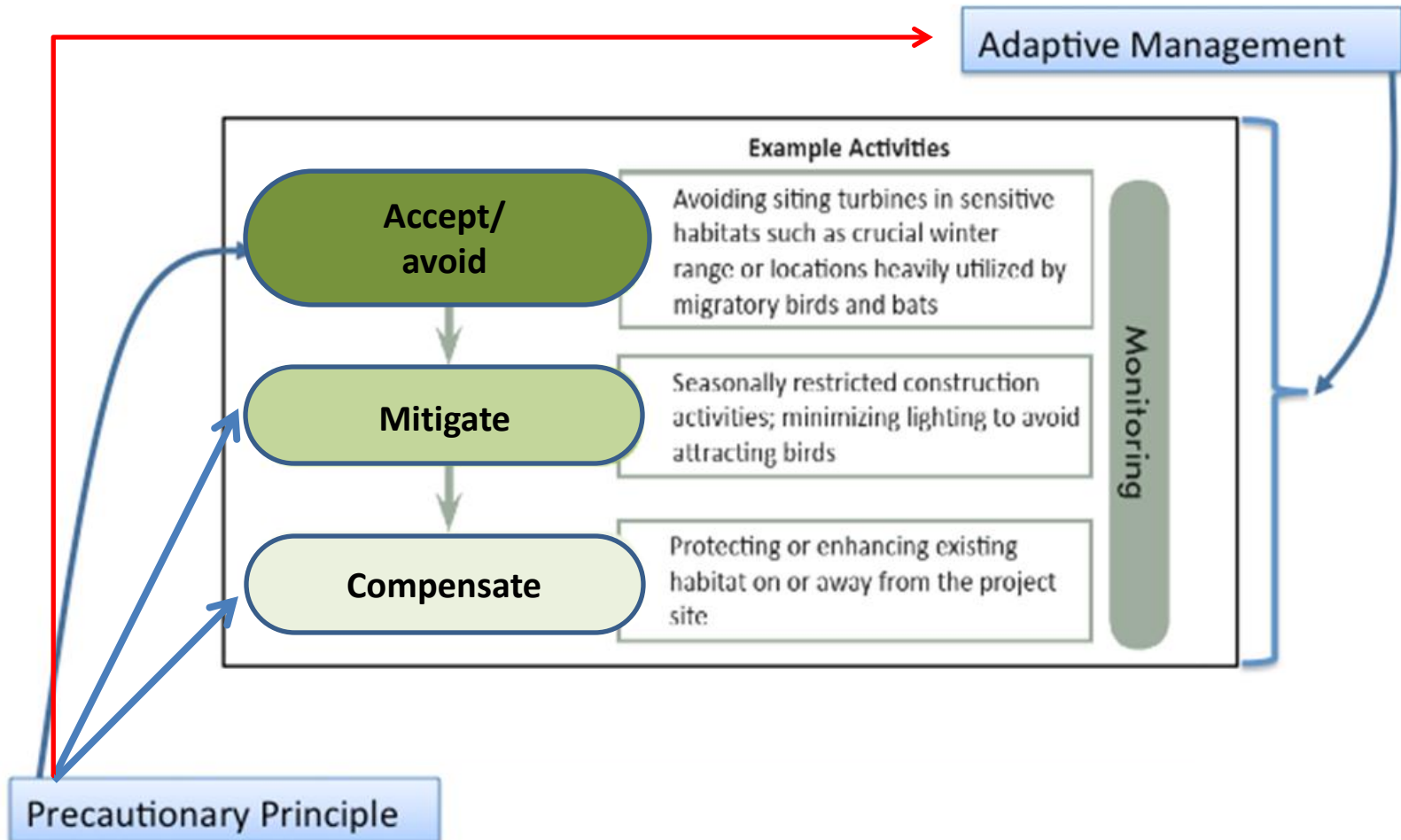


What is adaptive management?

- reducing uncertainty
- improving confidence in models
- tolerance thresholds of (modelled) impact
- avoid DRIPy monitoring
- affordable



Precautionary principle & adaptive management



Implementation in practice

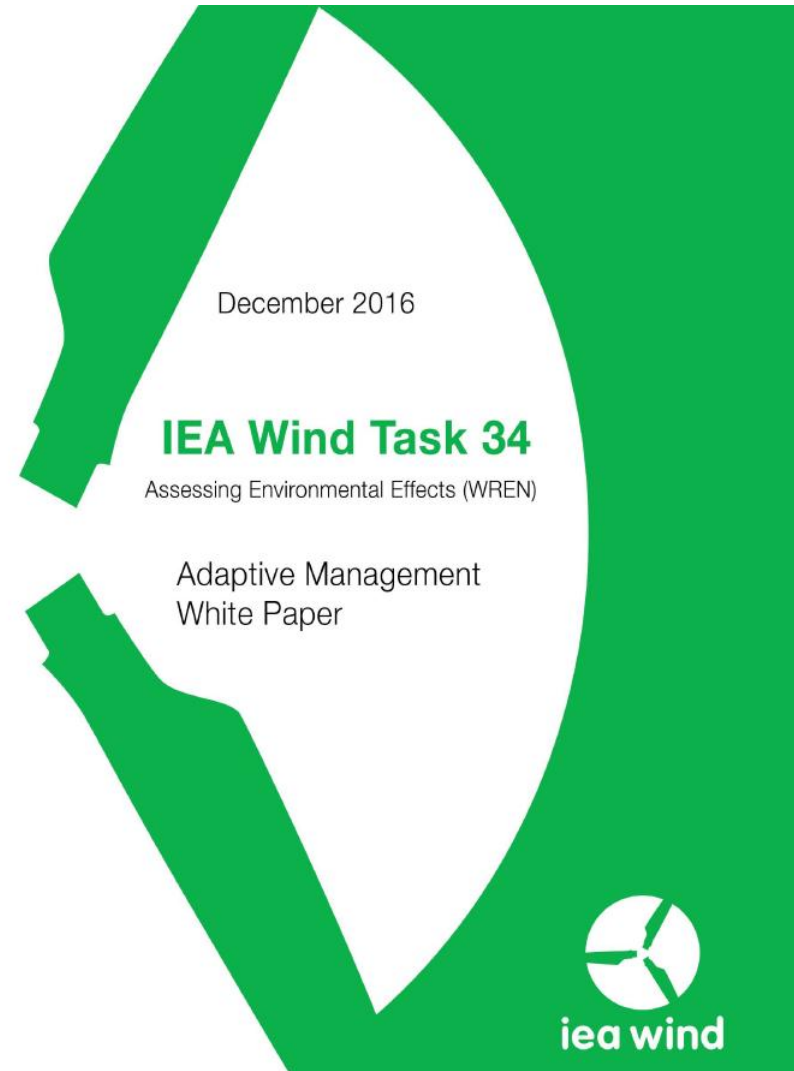
WREN white paper (2016) reviews
global experience

<https://tethys.pnnl.gov/publications/assessing-environmental-effects-wren-white-paper-adaptive-management-wind-energy>

UK offshore wind experience of post
consent monitoring

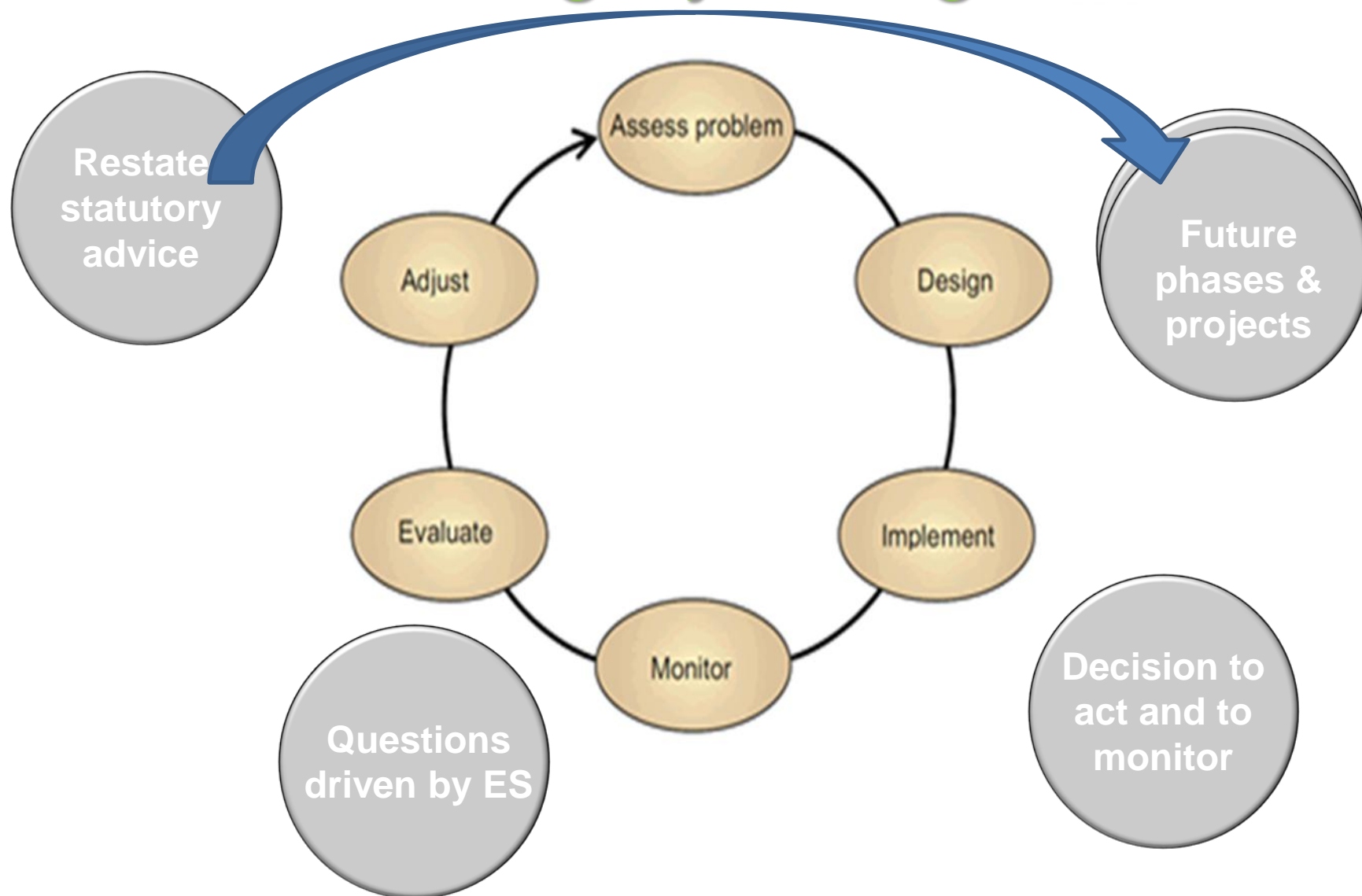
- MMO post-consent monitoring review (2014)
- DRIPy underpowered monitoring

**Implementation seldom cost effective
and unlikely to meaningfully reduce
scientific uncertainty**



Learning by doing

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Summing up

1. Use the Department of Interior's Technical Guidance
2. Poor implementation
3. Avoid DRIPy monitoring.
4. Addresses concerns that assessments are overly precautionary.





WREN Hub: <http://tethys.pnnl.gov/>

WREN (Working Together to Resolve Environmental Effects of Wind Energy) was established by the IEA Wind Committee in October 2012.

Adaptive Management White Paper (2016)

Authors: Hanna, L., Copping, A., Geerlofs, S., Feinberg, L., Brown-Saracino, J., Gilman, P., Bennet, F., May, R., Köppel, J., Bulling, L., Gartman, V.



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contact:

finlay.bennet@gov.scot

thanks