

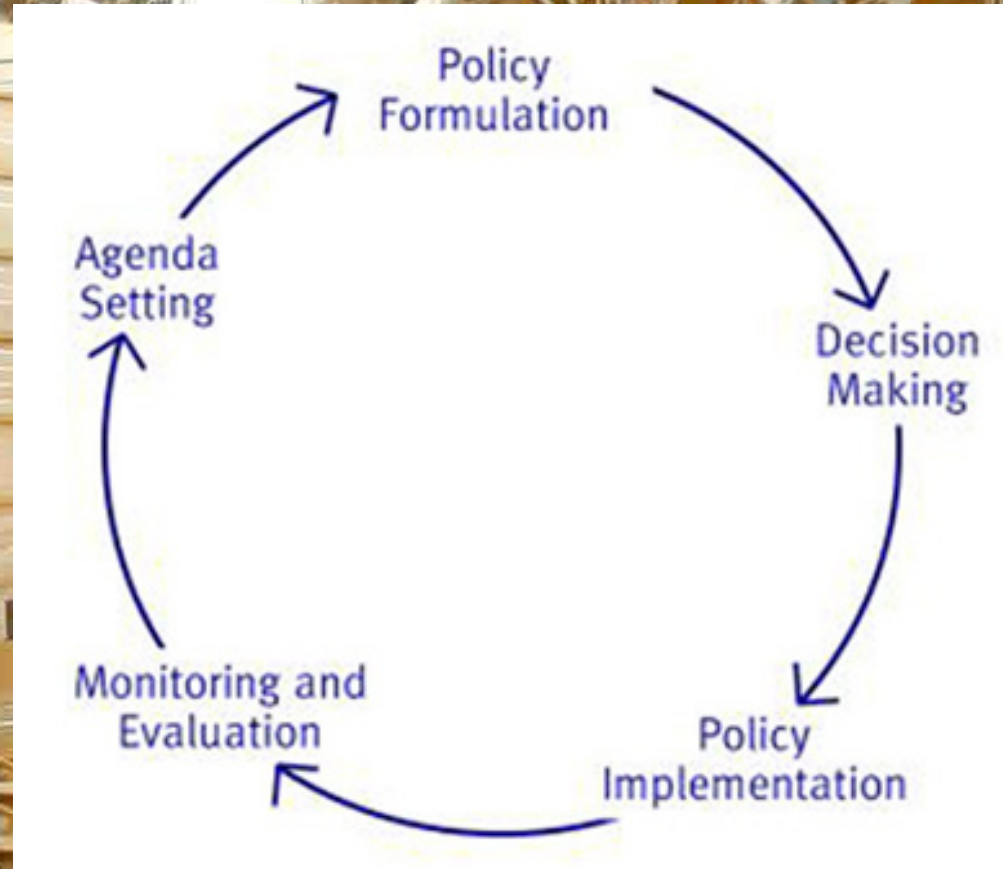
# Research Priorities for Policy Needs

- Andrew Harding. ICCS4, Montevideo, 2014

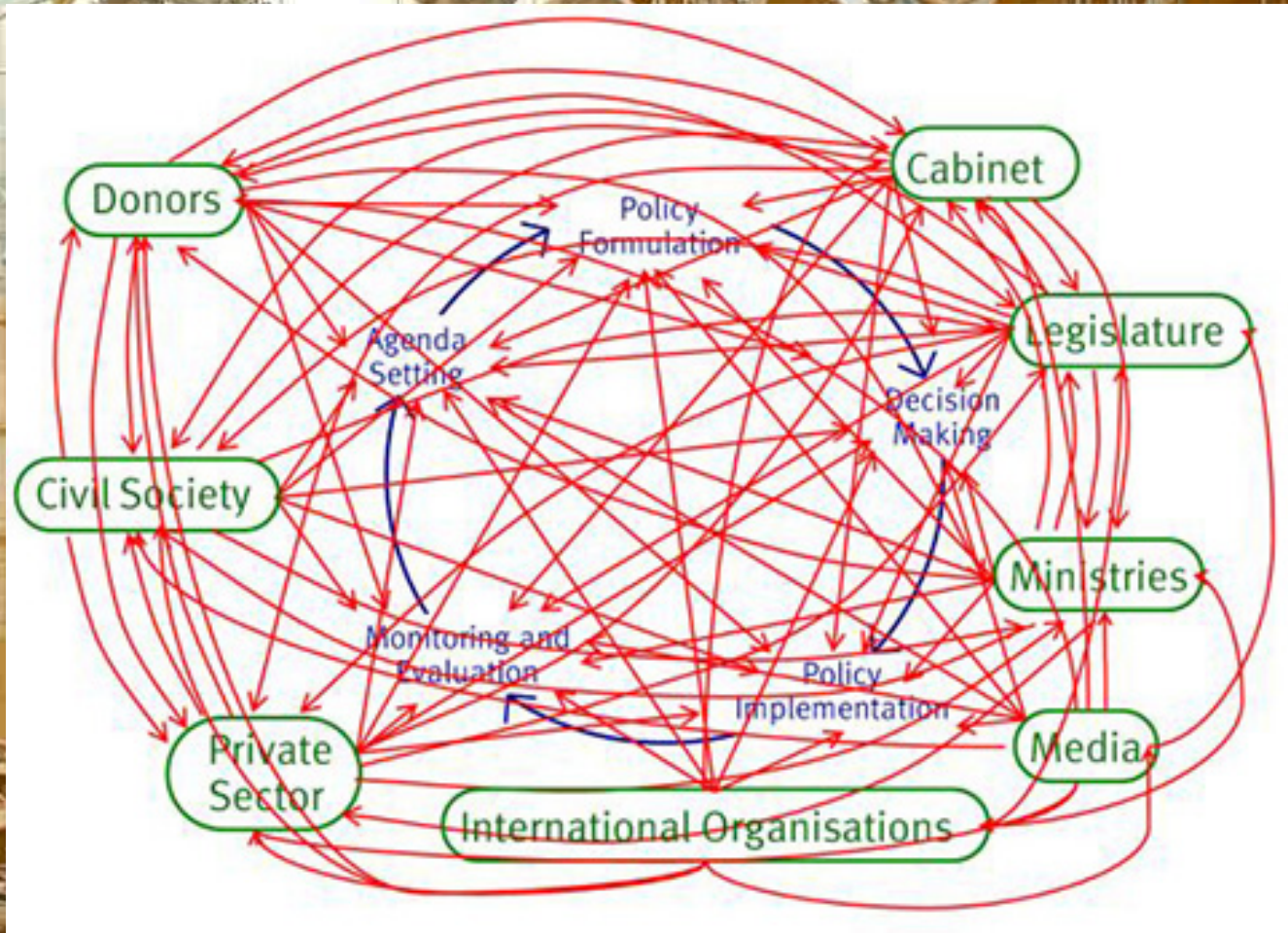


THE UNIVERSITY of EDINBURGH climate X change

# Policy generation



# Policy generation



# Policy generation

The background image shows a large, modern lecture hall or auditorium. The ceiling is a complex, multi-level structure made of light-colored wood, with many beams and supports. The walls are also made of wood. The floor is covered with rows of desks, each with a laptop computer on it. The desks are arranged in a semi-circle, facing towards the front of the room. The lighting is warm and comes from recessed lights in the ceiling and walls.

For climate information to be useful for policy it must be

- Available for governmental, civil, and private experts to inform their work,
- Available on demand through consultancy or think-tank type direct advisory.

# Capacity Building



Addressed by research councils

- Prioritised based on civil utility
- Building a body of research
- Indirect 'enlightenment' model of influence\*
- Normally lagged by 4 to 7 years
- May fail due to
  - Changing priorities (unless fundamental)
  - Lack of engagement and use (solved by cogeneration)

\*Buse, Mayes and Walt (2012) "Making Health policy"  
Open University press

# Fundamental Capacity Building

- GFCS Pillars:
  - observations and monitoring
  - modelling and prediction
- Also data rescue
- All needs to be robust, reliable, accompanied by meta-data and easily accessible.
- Currently being addressed by ISTI, Copernicus and QA4ECV

# Brick-by-brick Capacity Building

Increasing emphasis on coproduction in

- UK grant process (NERC, EPSRC)
- EU Research Frameworks (H2020)
- GFCS adaptation programme

There is a niche for Climate Services to

- Guide development for long term utility
- Help projects adapt to changing needs with partner involvement and milestone deliverables on shorter (policy relevant) timescales (6-9 months)

# Agency support

- 'Elective Affinity' and 'Advocacy Coalition' influence models
- Weeks to months timescale.
- Big civil themes, highly suitable for climate work.
- Can quickly become interested in the full range of uncertainty
- Like tailored, targeted information

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# Agency support

**BUT:**

- Contexts may change (e.g. Scottish agriculture pre-referendum)
- Scenarios most welcome when described in terms of policy directives (e.g. Natura 2000)
- Not that interested in global change, only interested in national impacts (e.g. Antarctic glacier retreat)

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# Waste-Not, Want-Not

Governments hate funding things twice over

- Will generally refuse attempts at funding capacity building for shorter timespan climate services

- No dynamical modelling, no data development, no large scale computation
- These things must already be in place

Climate Services colleagues must collaborate and inform each other across scales.

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# Ministerial Support

A nighttime photograph of a university campus. In the foreground, modern buildings with large glass windows are illuminated from within, casting a warm glow. In the background, a hill rises with the silhouette of a large, classical-style building with many columns. The sky is a deep twilight blue, and the overall scene is lit by a mix of natural and artificial light.

Even shorter time scales (hours to days), often driven from one event to the next, requires:

- An awareness of both policy and science landscapes
- Knowing your sources and their robustness
- Already having your data on hand.
- The ability to write succinct but accurate briefs that are structured appropriately

# Ministerial Support

A nighttime photograph of a university campus. In the foreground, there are modern buildings with illuminated windows and walkways. In the background, a hill features a prominent silhouette of a classical building with many columns, likely a library or a central hall. The sky is dark, and the overall scene is lit by artificial lights.

Central Government is not interested in a full estimation of uncertainty, they often want:

- the 'best we have',
  - 'best case' and often 'worst case',
- even if the worst case is pretty far out there. BUT this means that the researcher must have a strong sense of the uncertainties involved.

# Ministerial Support

A nighttime photograph of a university campus. In the foreground, there are modern buildings with illuminated windows and balconies. In the background, a hill features a prominent silhouette of a classical building with many columns, likely a library or a historical building. The sky is dark, and the overall scene is lit by warm artificial lights.

Important priorities around:

- Characterising the future (what can we expect?)
- Extreme event response (and attribution e.g. Eucleia)
- Metrics of impact, rather than climate
- Media event response

# What's missing?

- Modelling for highly regionalised local change and impacts (although Clim-Run)
- Assessment of communications, needs, and evaluation (although Eclise)
- Media responsiveness (although climate bloggers)
- Capacity building for human resources
- Climate Service coherency across sectors and time-scales

Thank you.

Andrew.e.harding@gmail.com



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