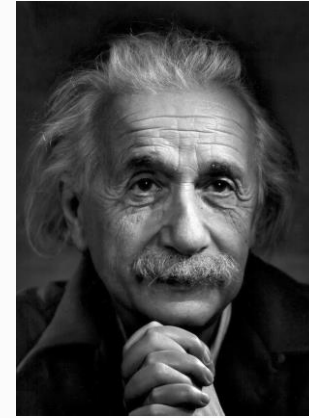
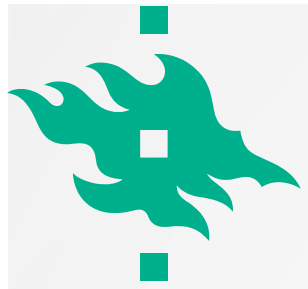




We cannot solve our problems with the same thinking we used when we created them!



The role of evidence in forest-related policy making: Power, politics and learning in science- policy interaction



POLITICS OF KNOWLEDGE

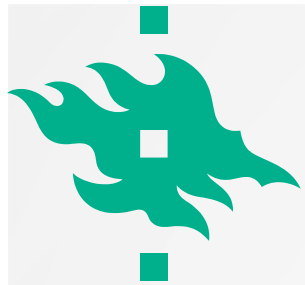
Myth: **Policy-makers systematically gather information, consider all alternatives** before making the (objectively) “correct” or “best” decision (Fischer 1998; Howlett et al. 2009) cited in Guske et al. / **Scientists ‘speak truth to power’** (Wildavsky [1979](#)) → linear model of the science–policy interaction

Reality: Empirical evidence shows that scientific findings, even when adhering to top standards, not necessarily inform policy → **Science influences governments, governments exert influence on scientific knowledge**

What to do to ensure policy and policy making is evidence-based rather than opinion-based?

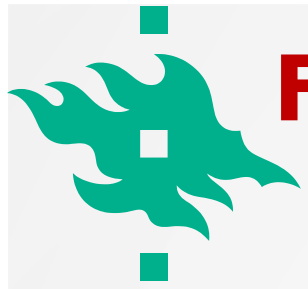
Scientists are not apolitical actors without self-interests (e.g., Collingridge and Reeve [1986](#); Andresen et al. [2000](#); Boehmer-Christiansen and Kellow [2002](#)).

Policy maker concern ‘is not primarily about effective problem solution, but about gaining and maintaining power’ (Mayntz)

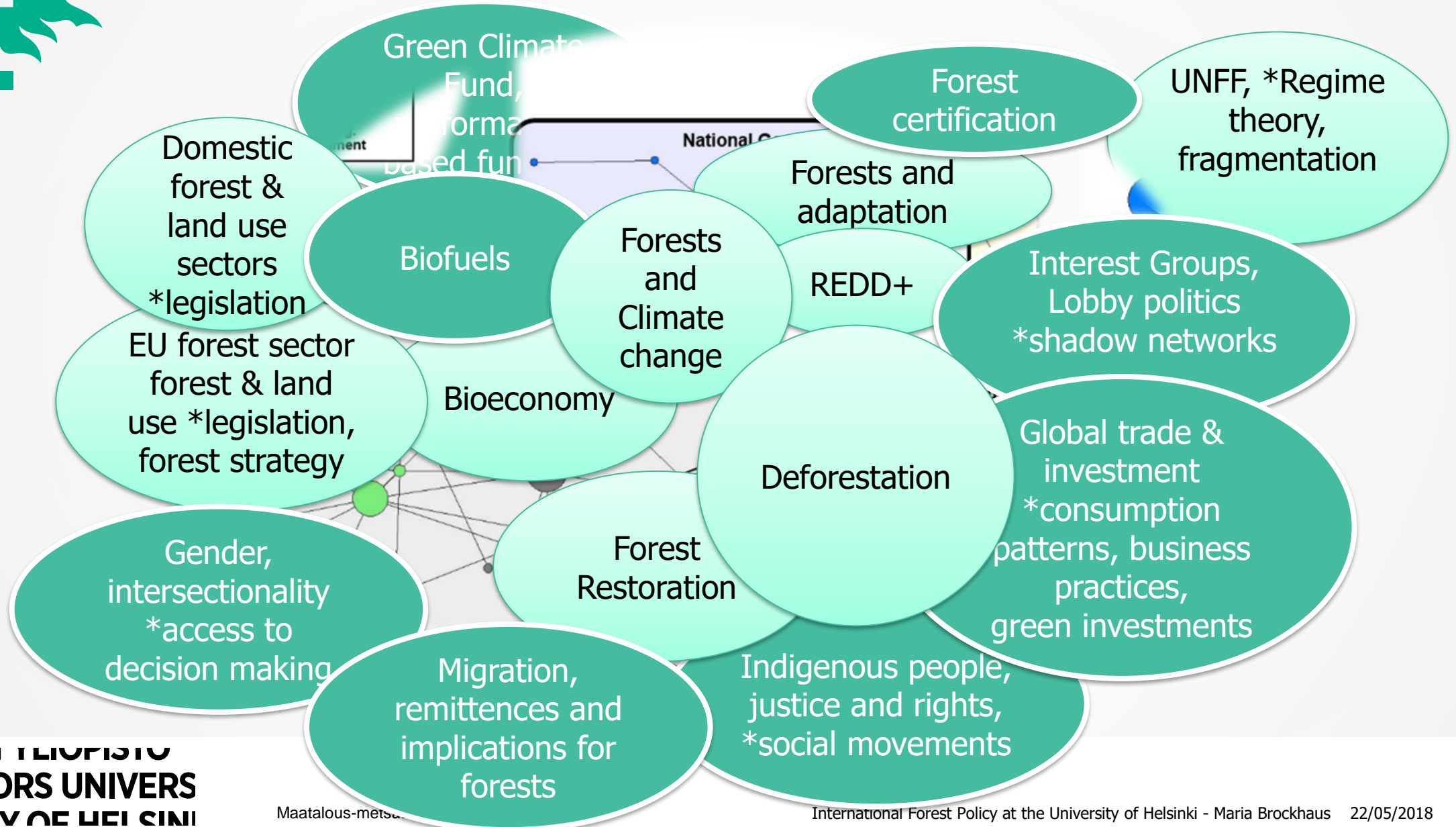


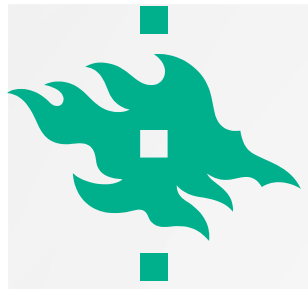
OVERVIEW

1. Why evidence - Policy problems and the need for evidence
 - Changing nature of our environmental and forest related puzzles
 - What is the problem? How to tackle it? Different actors, different policy proposals
2. What evidence - Gathering and assessing evidence for policy learning
 - Definition, characteristics
 - Grading evidence
3. How to facilitate evidence-based decision making - Science policy interaction and learning
 - SPIs and knowledge brokering
4. Ways forward



FOREST POLICY RELATED ARENAS





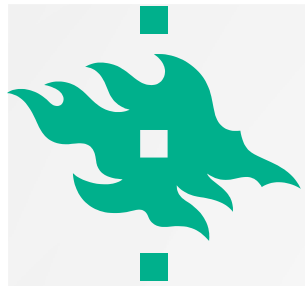
FOREST POLICY DOMAIN CHARACTERISTICS

Forest policy relevant policy domains and sub-systems are characterized by

- Multi-actor
- Multi-interest
- Multi-beliefs
- Multi-level, highly diverse institutional contexts

Forest policy related problems characterized by different degrees of

- Uncertainty
- Lack of consensus

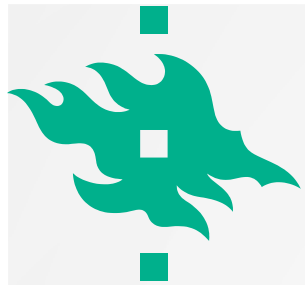


ACTORS

policy actors interact to influence decisions:

- politicians and public officials,
- managers of public and private companies,
- members of pressure groups,
- academics and researchers,
- active citizens
- Other individuals

	TYPE OF ORGANIZATION
Governmental Organization	Legislative actor: committee, body involved in policy formation, political party
	Executive department: ministerial/government department, body involved in policy implementation
	Independent advisory body
	Educational / research institution
NGO: non-membership based	Foundation/Charity/ NGO network
NGO: membership-based (individual or organizations)	Individual membership-based NGO (grass-root organization or union or federation of grass-root organizations) (e.g. farmers' union, indigenous groups)
	Professional membership-based association (e.g. journalist association)
	Business association (e.g. plywood producer association)
National Business	National private business: specify sector:
International	International NGO
	Intergovernmental Organization (UN, World Bank....)
	Foreign or Multinational Business specify main sector relevant to REDD:
	Foreign Government Agency
Other	Other, specify:



ACTORS BEHAVIOR - SOME ISSUES

Scientific knowledge is deeply **embedded in politics** and the broader culture of the society (e.g., Jasanoff [1996](#)),

Scientific **findings may reflect the bias of funding institutions** (e.g., Andresen and Østreng [1989](#); Jasanoff and Wynne [1998](#))

Knowledge is deliberately ignored by policy-makers (Innes 1990);

Scientists overestimate the value of their work and misunderstand how it is used in policy-making (Lindblom & Cohen 1979);

Scientists **present their findings selectively** (Barber 1987);

Knowledge remains incomplete due to exclusion of relevant stakeholders or types of knowledge (Fischer 1998; Healey & Hillier 1996);

Scientists and policy-makers use **different assumptions, values, and language** to discuss policy problems (Lindblom 1990);

Lack of widely accepted set of criteria to measure the credibility, relevance, and legitimacy of knowledge and compare them against one another so far (Jahn et al. 2012).;

Environmental **knowledge made fit into a dominant discourse**", i.e. it is used at will (Runhaar, 2009).

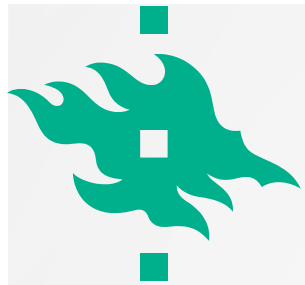


META-LEVEL ISSUES

- (i) strategic use of knowledge by policy;
- (ii) strategic development of knowledge by science; and
- (iii) the operational misfit between demand for and supply of knowledge.

(van Enst et al. 2014)

→ Overcoming these issues requires the production and use of science that is credible, salient and legitimate (Cash et al. 2003)



POLICY LEARNING

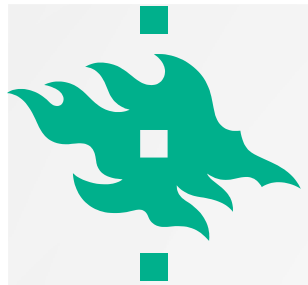
At its most general level, 'policy learning' can be defined as adjusting understandings and beliefs related to public policy. (Dunlop & Radaelli, [2013](#) Dunlop, C., & Radaelli, C. (2013) as cited in Moyson et al. 2017)

→ To achieve learning and overcome science policy issues:

Evidence based policy making: 'rigorous in gathering, critically appraising, uses high quality research evidence to inform policymaking and professional practice' (Davies, 2004)

Science policy interactions to communicate, translate, mediate evidence (Cash et al. 2003)

Science policy interfaces (SPIs): aim at decisions that are well-informed about the problems and the range of available intervention strategies while acknowledging that science is just one part of the complex decision-making processes (Lackey, 2007; Pielke, 2007).



TYPES OF EVIDENCE

Qualitative

Quantitative

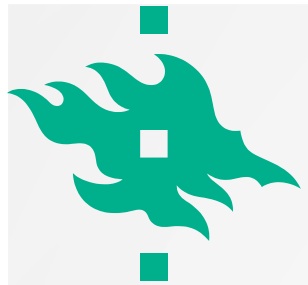
Expert knowledge-based

Theory-based

Models

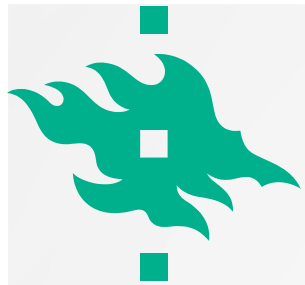
.....

→ Implementation Evidence, Impact Evidence, Descriptive Analytical Evidence, Economic/Econometric Evidence, Ethical Evidence, Statistical Modelling, Attitudinal Evidence (Davies, 2004)



STRENGTH OF EVIDENCE

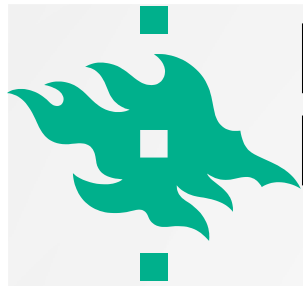
- Long history especially in medicine and related disciplines to assess evidence
→ example for efforts in forestry are systematic literature reviews, BACI impact assessment, etc
 - Multitude of grading/assessment schemes exist, often establishing a hierarchy among types of knowledge/data → can lead to exclusion of relevant evidence
 - Some (of the many) general criteria: **Credibility**, Relevance, Transparency, Applicability, Timeliness, Consistency,
- **Credibility**: Is the source of evidence ensuring quality standards in research design and analysis/ interpretation? How much of the candidate evidence is from other sources with limited, unclear or none standards? Funding, agendas, biases ?



SCIENCE POLICY INTERFACES

SPIs differentiated by dimensions ‘actors, goals, strategies’ (van Enst et al 2014):

- **Co-production of knowledge – CREATE** (process of participatory knowledge development, WITH MULTIPLE ACCOUNTABILITIES e.g., scientific, expert, lay actors, with goal of creating common understanding and knowledge in a participatory way, exchange strategy should lead to increase level of **salience and legitimacy**);
- **Institutional, boundary organisations – BRIDGE** (e.g. often formal institutions with legal base, boundary organisations, such as IPCC, to serve as platform for interdisciplinary collaboration, strategy to collect and disseminate scientific knowledge, structure research questions, focus on the **salience and credibility** of knowledge)
- **Individual science policy mediators - FACILITATE** (e.g. boundary workers, knowledge brokers, goal to facilitate knowledge sharing, strategic bridge building, being able to create awareness, share knowledge, identifying and producing **salient and legitimate** knowledge)

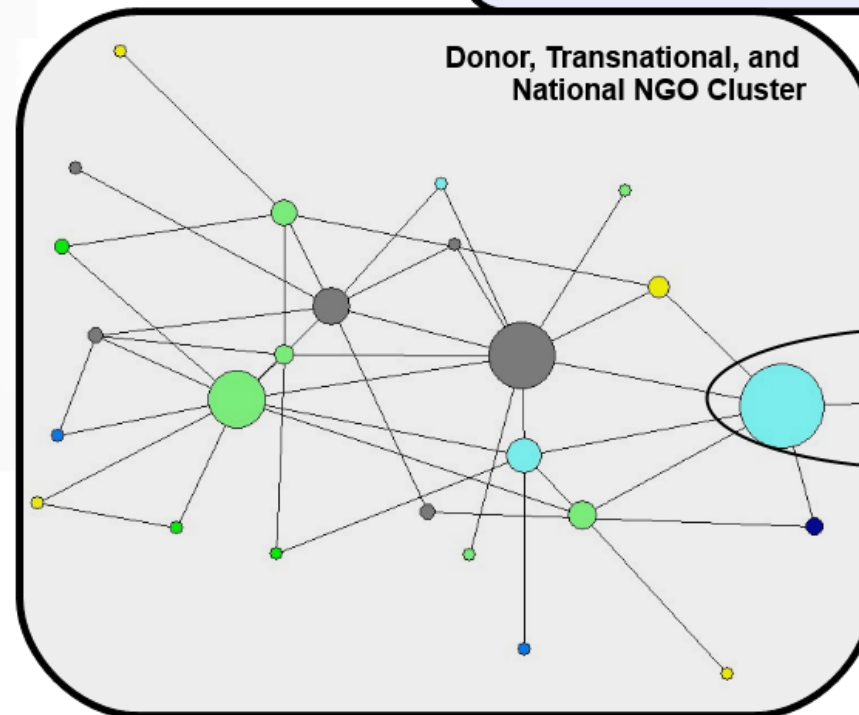


REDD+ RELATED INFORMATION EXCHANGE IN INDONESIA (MOELIONO ET AL. 2013):

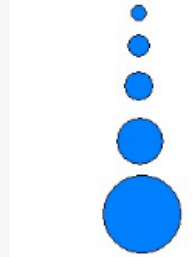
- 4 distinct clusters
- Homophily strong in national government cluster
- One bridge

Organization Type

- National Government
- Provincial Government
- Academic/Research
- Private Sector
- National NGO
- International NGO
- International Org.
- Donor Government



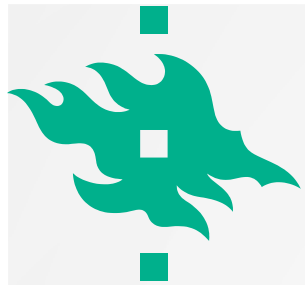
Betweenness



Two Private Sector Organizations

Civil Society Forum for Climate Justice Cluster

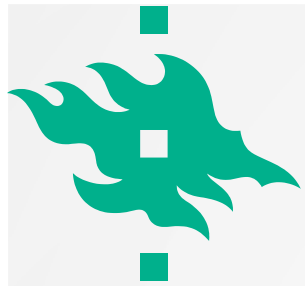
"Bridge" between two clusters formed by connection between an international organization and a national NGO



SCIENCE POLICY INTERFACES

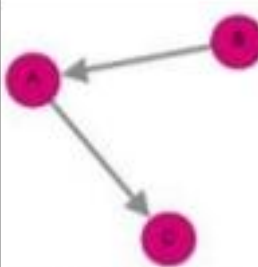
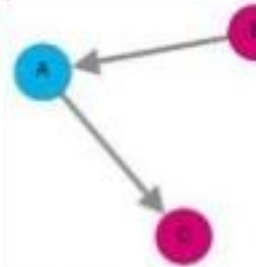
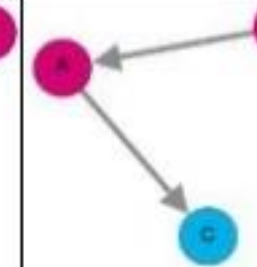
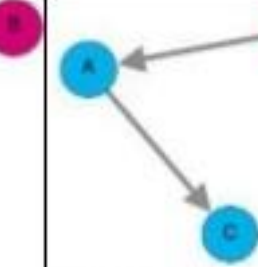
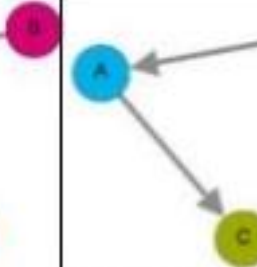
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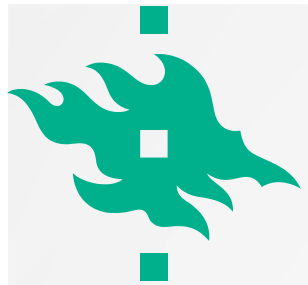
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BROKERAGE ROLES

(Katy Jordan 2015)

Coordinator	Itinerant broker	Representative	Gatekeeper	Liaison
				
Broker is part of a community and mediates between other members of the same community	Broker mediates between members of the same community without being a member herself.	Broker mediates flow of information out of a community.	Broker mediates flow of information into a community.	Broker mediates between two different groups, neither of which she belongs to.



EFFECTIVENESS OF SPI

CONTEXT

related to the

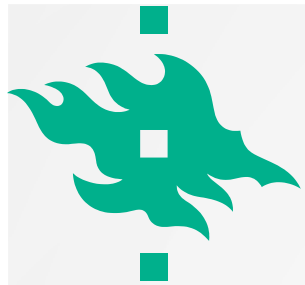
- level of structuredness (certainty and consensus) of the policy problems;
- presence of legal frameworks for knowledge production and use.



KNOWLEDGE, INTERESTS, BELIEFS

related to

- who's knowledge counts, who's interest matters, who's voice is dominant



WAYS FORWARD

Credibility credibility credibility : a responsibility i) for those that generate evidence, when designing and conducting research and analysis, and sharing in transparent manner findings; ii) for those that mediate and manage science policy interfaces, when assessing and selecting, interpreting available evidence; iii) for those that make decisions and policy, when being presented with multiple evidence and different bodies of knowledge, and learning about trade-offs.

- Critical assessment of funding:
 - **Follow the money**
- Sensitivity to biases:
 - **What is counted, counts!**
 - **Who counts, counts!**
 - **Who shouts? Dominant discourses ..**
- Engagement in **genuine learning**, formally or informally .. to ensure **transparency** and enable **reflection**



**KIITOS!
DANKE!
TAKK!**