



Policy-makers & scientists do(n't) listen to each other do(n't) they?

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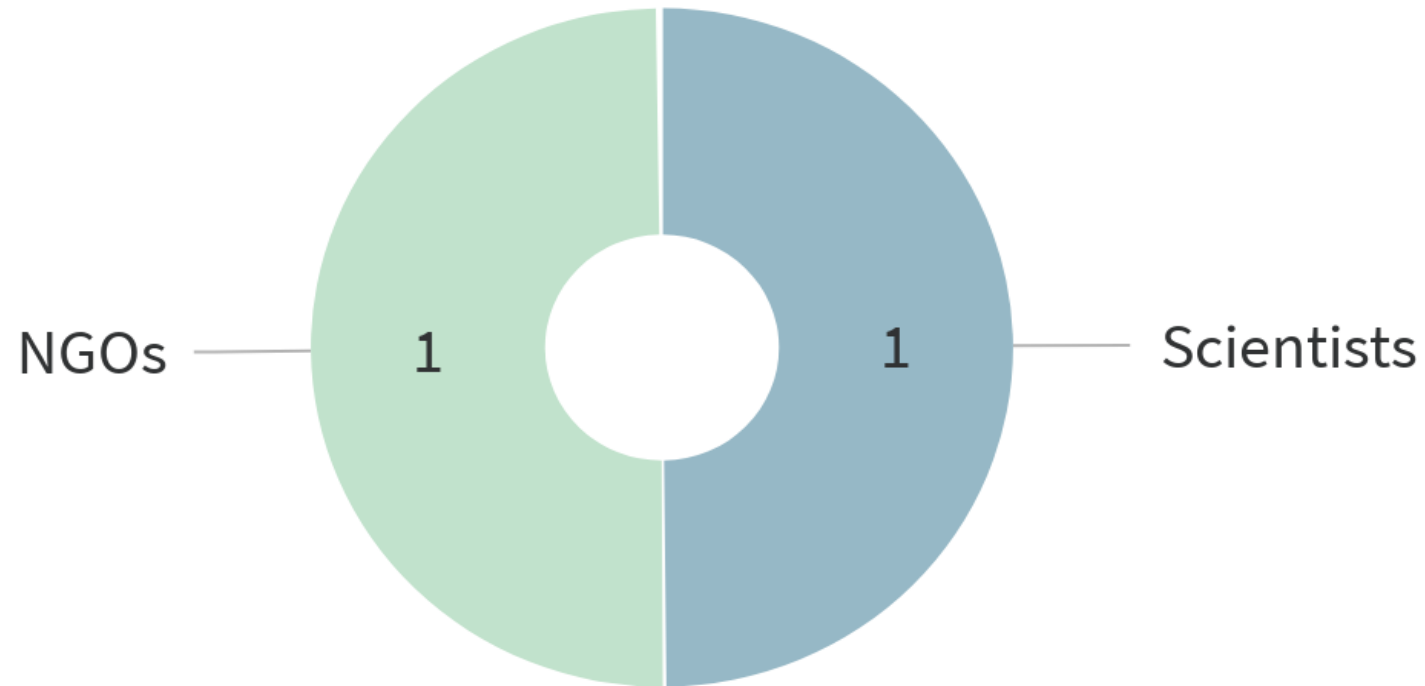
Jean.Huge@vub.ac.be

Online polling

- Pollev.com/JEANHUGE927
- Screen name: full name + affiliation (*e.g.* Jean Hugé VUB)

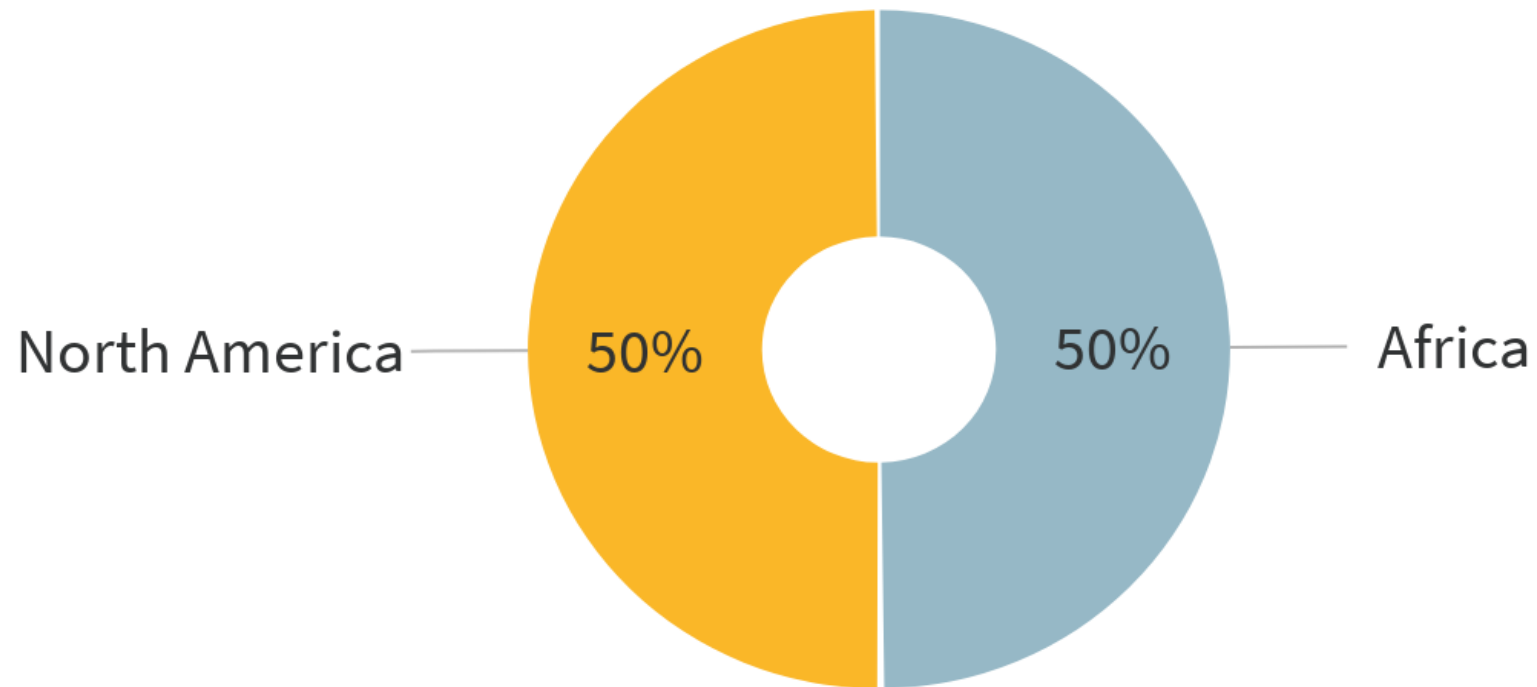
Which group do you belong to?

Scientists **A** Policy-makers **B** NGOs **C** Students **D** Business **E** Other **F**




In which area are you professionally most active?

Africa **A** Asia **B** Europe **C** South/Central America **D** North America **E** Oceania **F** Polar regions **G**



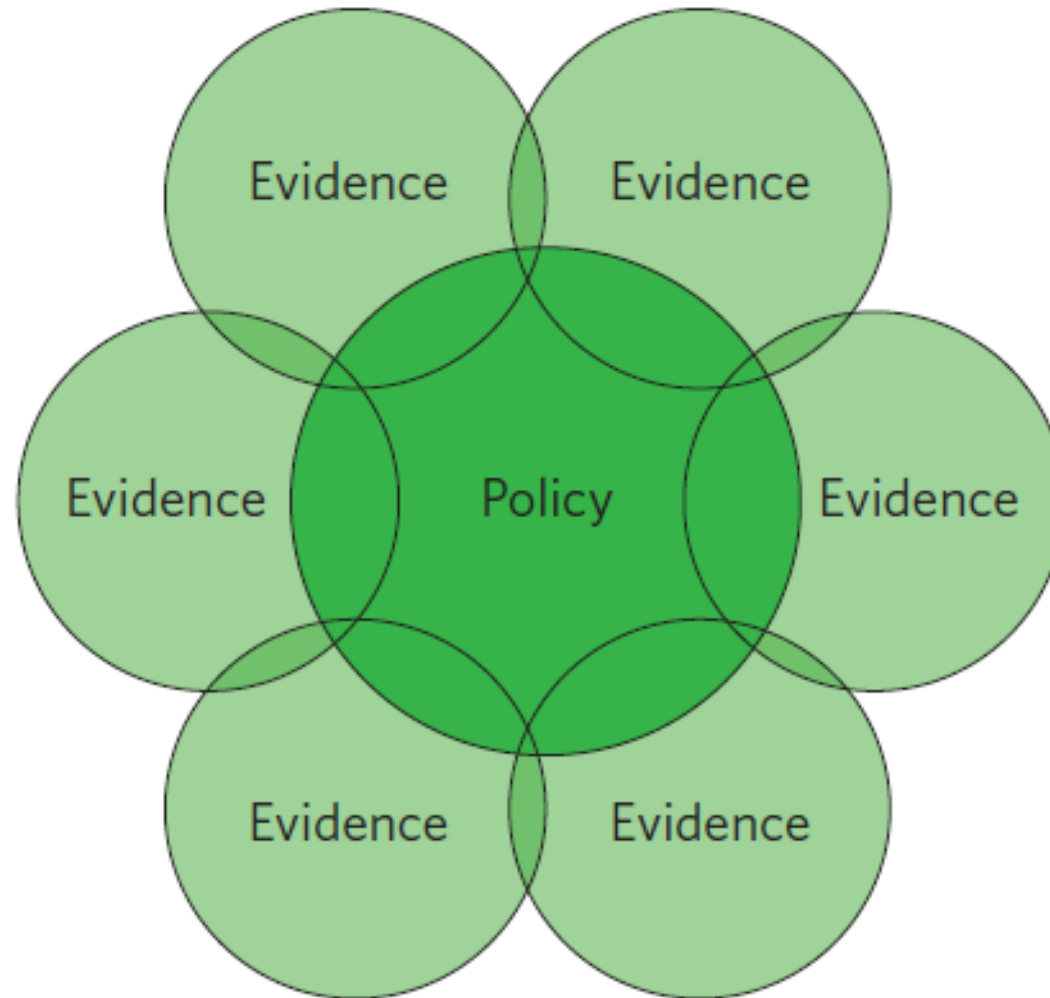
Which words come up in your mind when you think about science and policy?

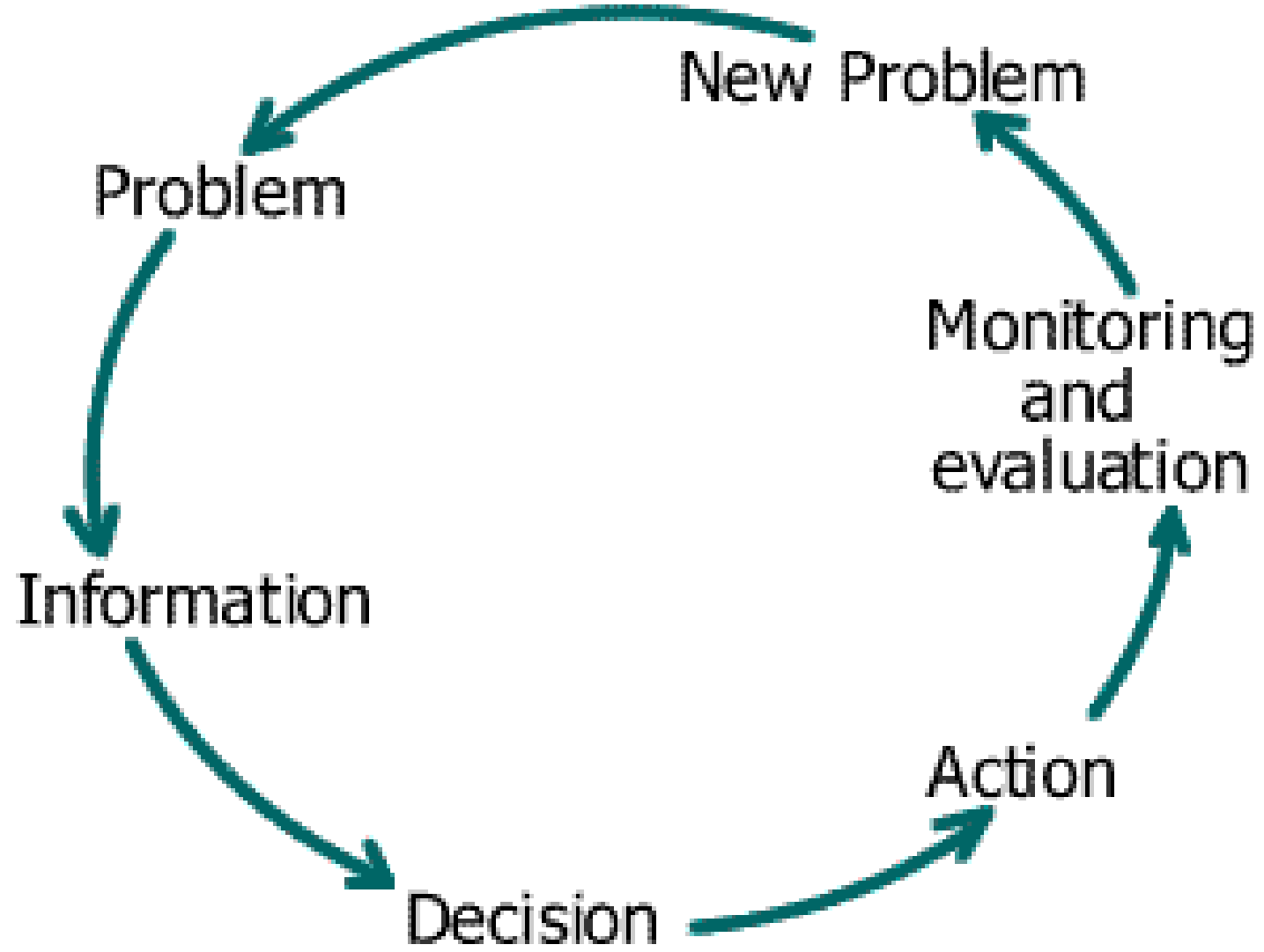
According to you, what are the main factors influencing policy-making?

 When poll is active, respond at PollEv.com/jeanhuge927

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How scientists - seem to - think policy works





But does
policy-making
actually work
like that?

- Lindblom (1959) challenged the idea of rational decision-making
- He talked about 'muddling through', and stated:

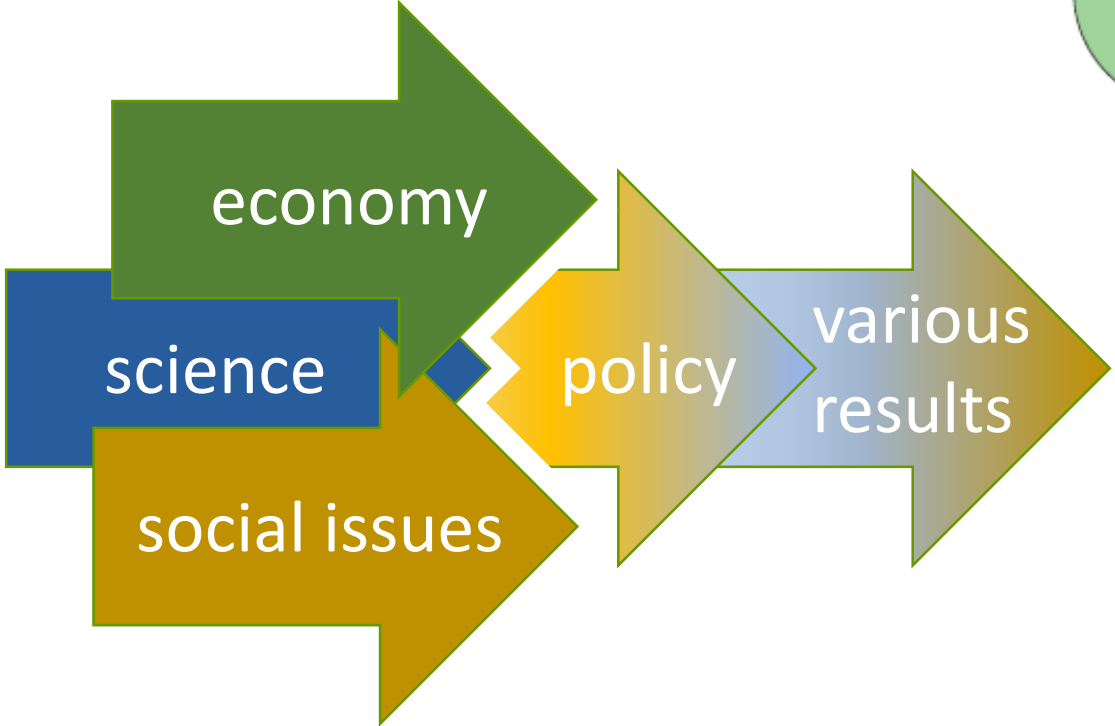
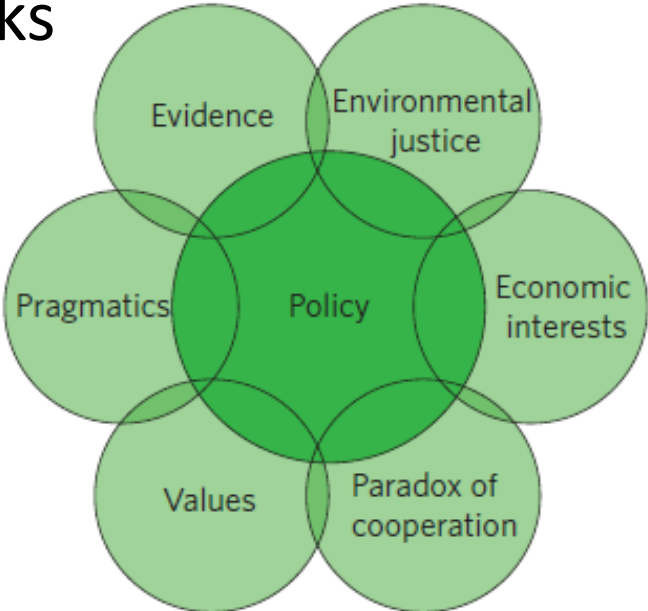
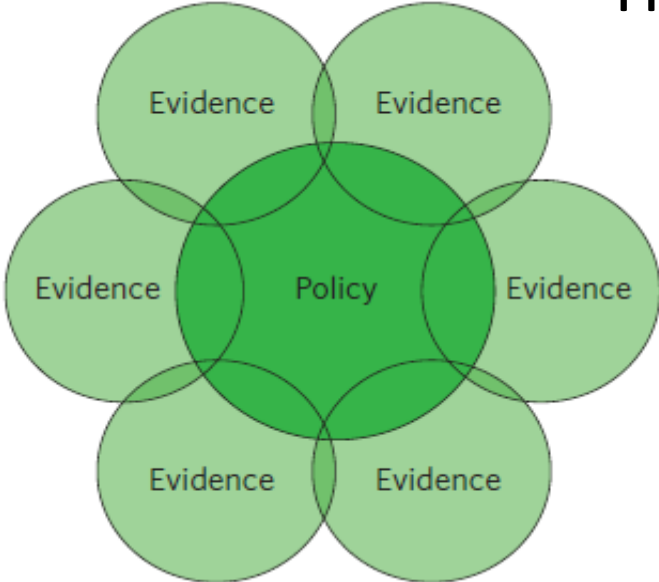
« *Decision-making is irrational & complex, and goes beyond the action of individuals & groups* »

« (Decision-making) is governed mainly by a cauldron of emotions, motives and desires which we are barely conscious of (...) »

(Ramachandran, in: Gore, 2007)



How policy-making actually works



Sutherland *et al.*, 2004. The need for evidence-based conservation.
Trends in Ecology & Evolution 19 (6)




Table 1. Sources of information used by practitioners in Broadland, UK

Source of information	Number	%
Common sense	55	32.4
Personal experience	37	21.8
Speaking to other managers in region	34	20.0
Other managers outside region	4	2.4
Expert advisers	17	10.0
Secondary publications	19	11.2
Primary scientific literature	4	2.4


Why is it so hard to bridge the
gap between science and
policy?

Based on your personal experience, what are the context-specific challenges you encountered in the interactions between scientists and policy-makers? (think of the specific geographic, ecological, social, political context of your core area) ?

 When poll is active, respond at **Pollev.com/jeanhuge927**

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How can we overcome these challenges?

 When poll is active, respond at **PollEv.com/jeanhuge927**

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Policy-making combines individual & collective choices

*“The **essence** of ultimate **decision** remains impenetrable to the observer - often, indeed, to the decider himself.”*

(J.F. Kennedy, former US president)

ENVIRONMENT

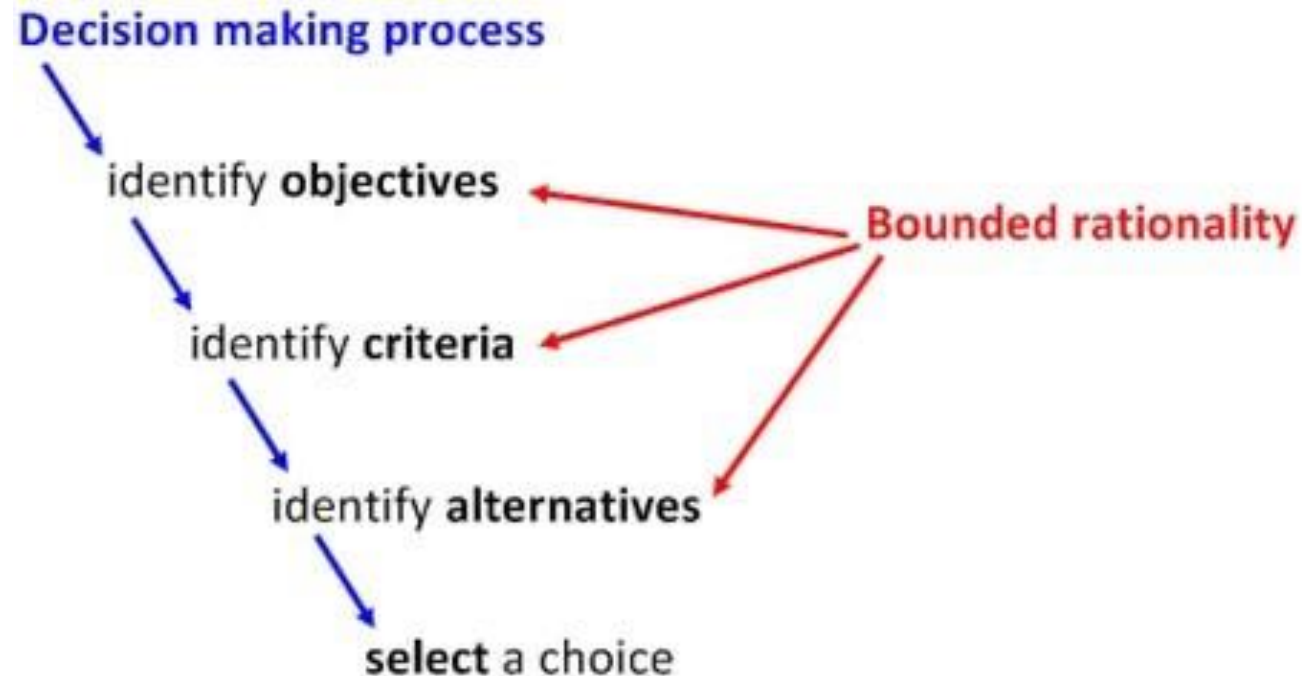
Looming Global-Scale Failures and Missing Institutions

Navigating global changes requires a
coevolving set of collaborative, global
institutions.

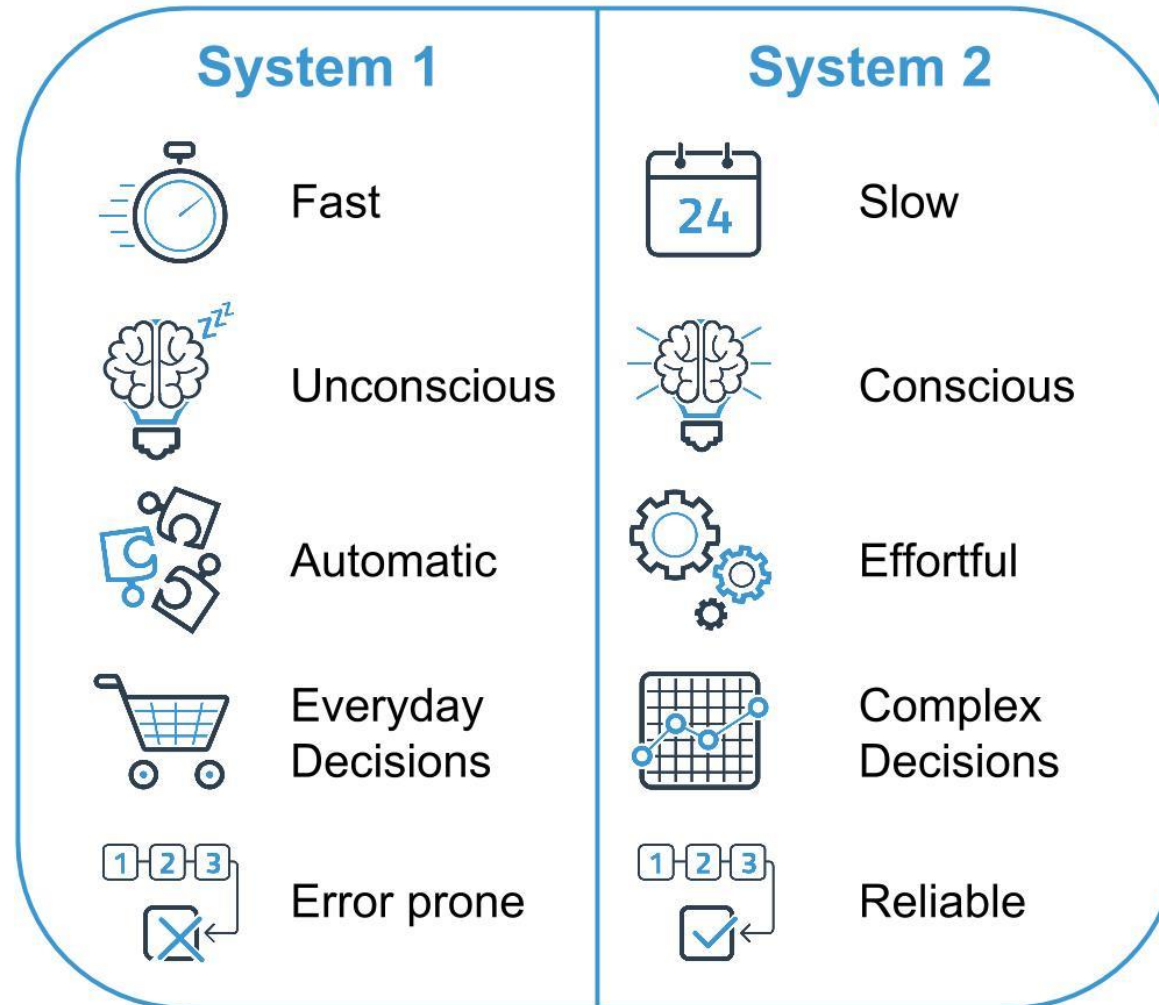
Brian Walker,^{12*} Scott Barrett,³ Stephen Polasky,^{4,5} Victor Galaz,² Carl Folke,^{2,4} Gustav Engström,^{4,6}
Frank Ackerman,^{7,8} Ken Arrow,⁹ Stephen Carpenter,¹⁰ Kanchan Chopra,¹¹ Gretchen Daily,¹²
Paul Ehrlich,¹² Terry Hughes,¹³ Nils Kautsky,¹⁴ Simon Levin,¹⁵ Karl-Göran Mäler,^{2,4}
Jason Shogren,¹⁶ Jeff Vincent,¹⁷ Tasos Xepapadeas,¹⁸ Aart de Zeeuw^{4,19}

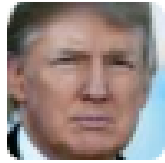
Bounded rationality

Bounded rationality is the idea that in decision-making, **rationality** of individuals is limited by the information they have, the cognitive limitations of their minds, and the finite amount of time they have to make a decision (Simon, 1991)



Fast & slow thinking





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@realDonaldTrump



Following

Snowing in Texas and Louisiana, record setting freezing temperatures throughout the country and beyond. Global warming is an expensive hoax!

RETWEETS

428

LIKES

358



1:27 AM - 29 Jan 2014



Diversity of perspectives



Cultural cognition

Is this scientist an “expert” on global warming?



Robert Linden

Position: Professor of Meteorology,
Massachusetts Institute of Technology

Education: Ph.D., Harvard University

Memberships:

- American Meteorological Society
- National Academy of Sciences

“High risk”

“It is now beyond reasonable scientific dispute that human activity is causing ‘global warming’ and other dangerous forms of climate change. . . .

“Low risk”

“Judged by conventional scientific standards, it is premature to conclude that human CO₂ emissions—so-called ‘greenhouse gasses’—cause global warming. . . .

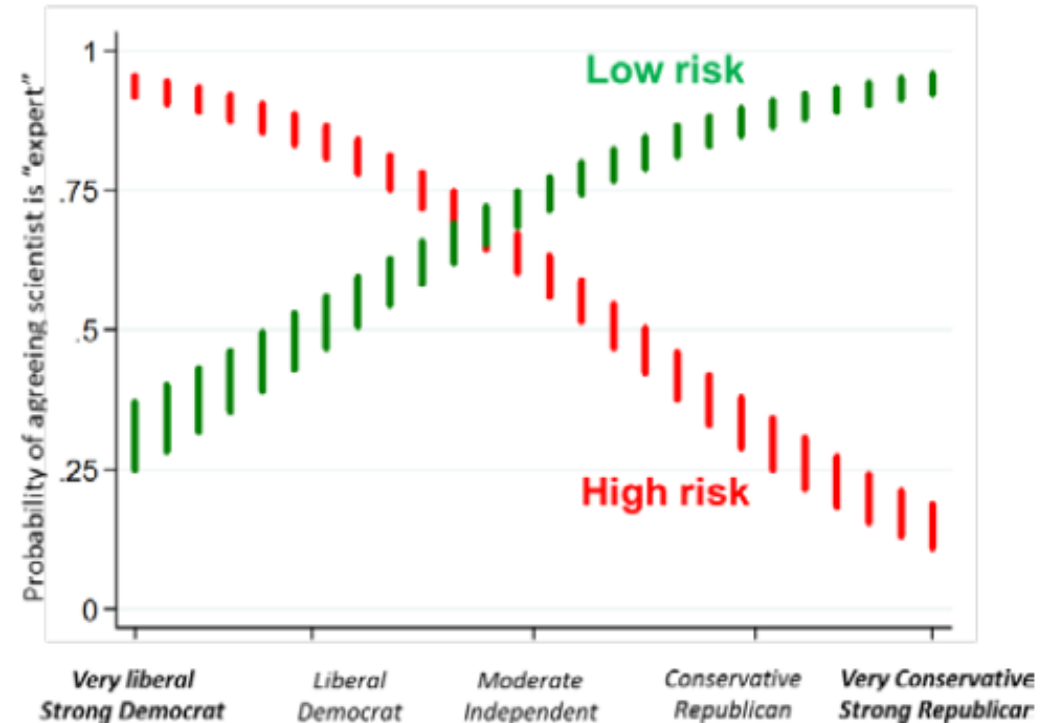


Figure 3. Biased perceptions of scientific expertise. Colored bars reflect 0.95 confidence intervals (N = 1336) [Kahan, Jenkins-Smith and Braman, 2013].

Solution aversion

Solution Aversion: denying or ignoring the problem when we don't like the solution





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Following

The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive.

RETWEETS

24,831

LIKES

14,654



2:15 PM - 6 Nov 2012



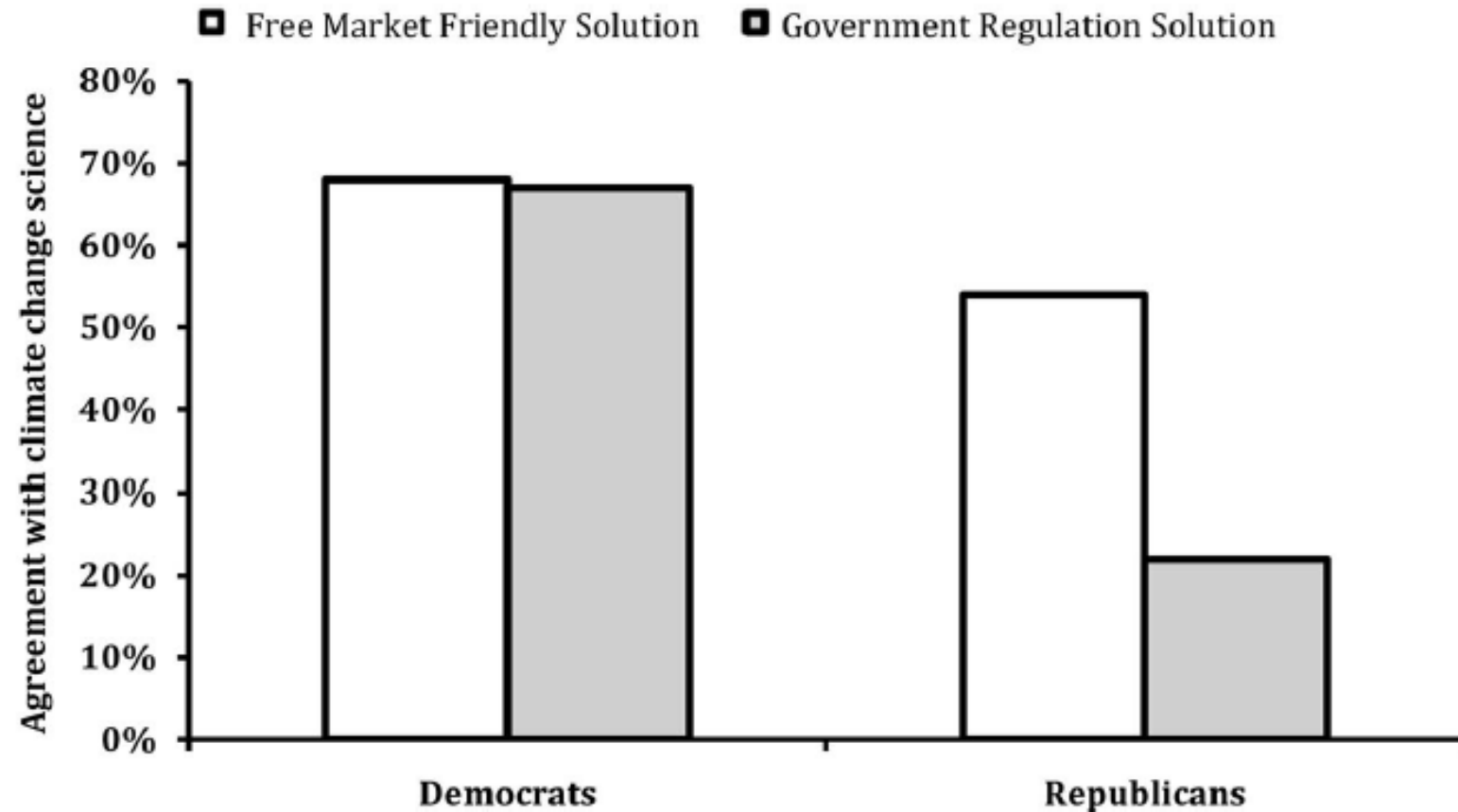


Figure 2. Agreement with climate change science as a function of self-reported political party affiliation and proposed policy solutions (Study 2). Agreement was measured dichotomously as indicating a value of 3.0 degrees or higher versus not. The first three bars are individually significantly different from the last bar (the Republicans in government regulation solution; $ps < .05$). There are no other significant differences.

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Today on Earth Day, we celebrate our beautiful forests, lakes and land. We stand committed to preserving the natural beauty of our nation.

4/22/17, 11:01 AM

13.5K RETWEETS **70.1K** LIKES



How can we address this?

COMMENTARY:

Five ways to enhance the impact of climate science

David Christian Rose

Embracing an 'evidence-informed' rather than 'evidence-based' attitude to policy-making should result in more effective action on climate change, recognizing that evidence must be used in such a way as to interact persuasively with other factors.

1. Reject an evidence-based mindset
2. Adopt an evidence-informed mindset
3. Do not overrate certainty
4. Tell good news stories
5. Be policy relevant

Example: re-framing of a RSPB campaign

RSPB Wild Birds Campaign (Rose, 2014)

- RSPB campaigned to ban the trade in wild birds in the EU; RSPB initially used animal welfare arguments to make its point.
- This has no influence on policy-makers → *'arguments about animal welfare and nature conservation were almost irrelevant'*
- When an imported South American parrot died of bird flu, the RSPB realized that other arguments could be used to achieve their targets.
- RSBP now developed a campaign centred on risks for public health, as imported birds could carry and spread bird flu.
- Suddenly the story got a political, social and economic dimension.
- And it worked! (Santos et al., 2011)



Wild birds and the law

Wildlife law

Wild bird crime

Investigating wild bird crime

Publications

Law Commission review of
wildlife law

Report a wildlife crime

Trade ban will save two million wild birds



11 January 2007



We've been campaigning for a permanent ban for 20 years - and are delighted by the news

Image: Chris Gomersall

The trade in wild birds will be permanently banned throughout the EU because of fears for human and animal health.

The ban, from 1 July 2007, means that up to two million wild birds annually will

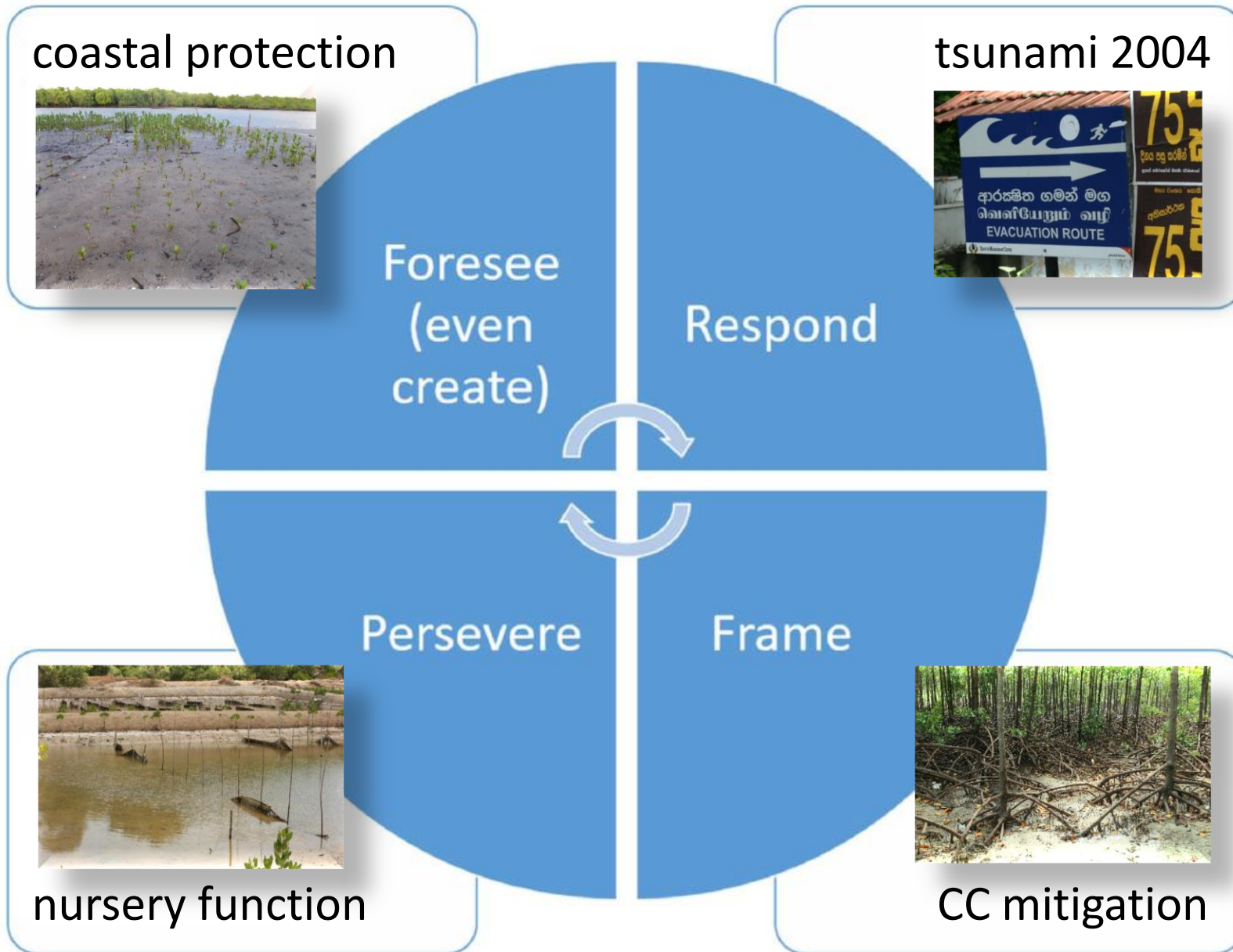
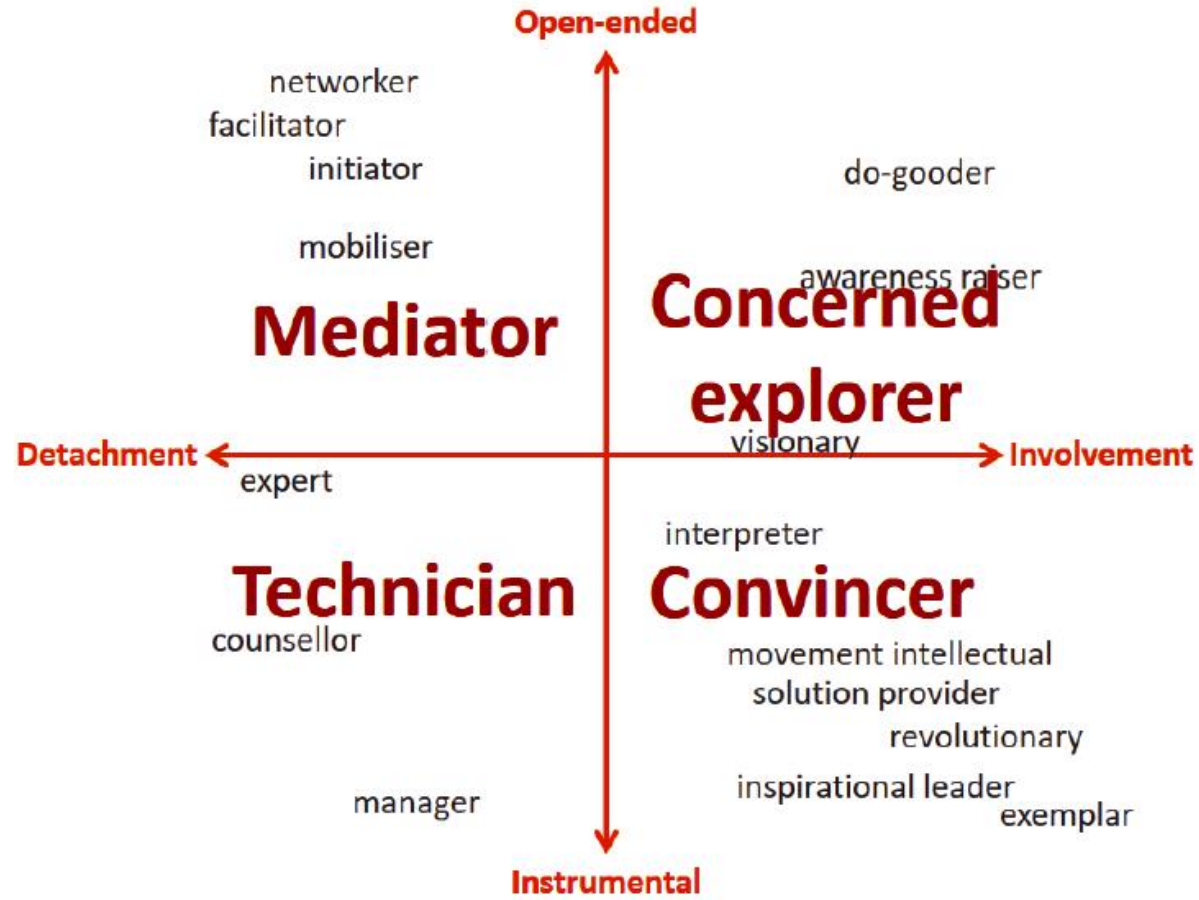


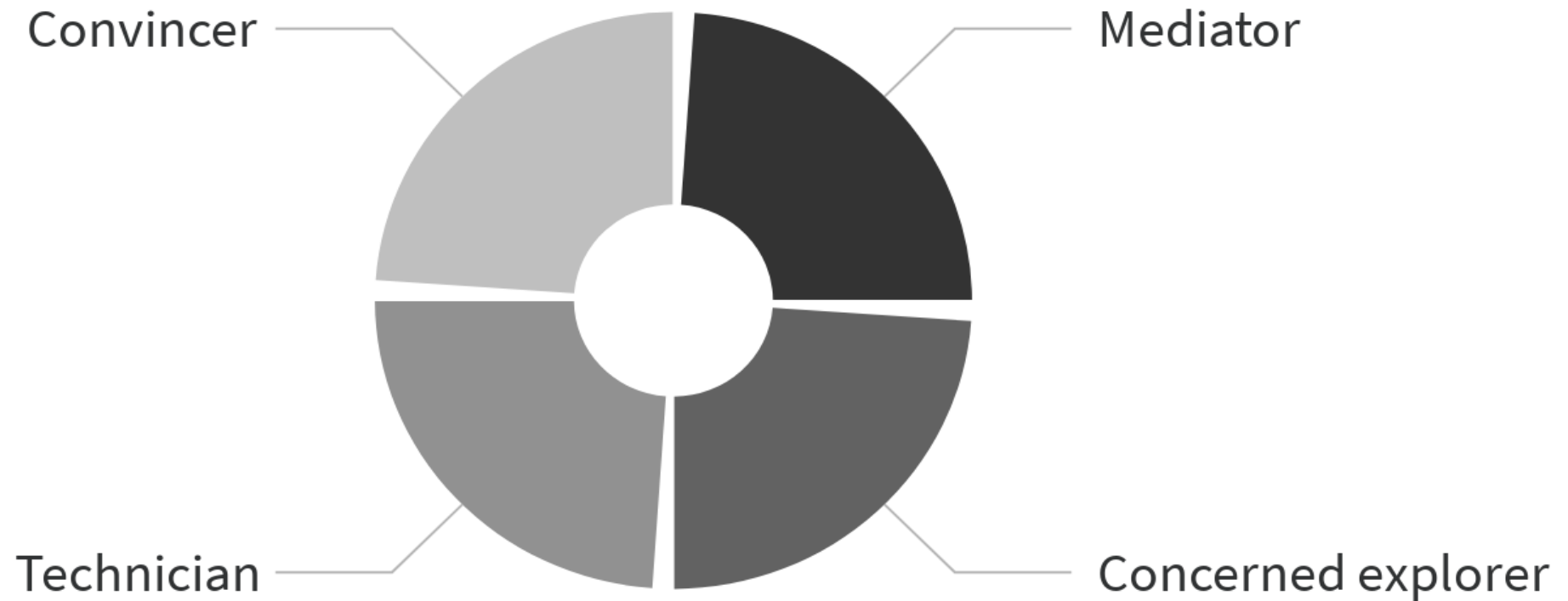
Fig. 2. The four suggested interconnecting tips for responding to policy windows.

What kind of change agent are you?



What kind of change agent do you think you are?

Mediator **A** Concerned explorer **B** Technician **C** Convincer **D**



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