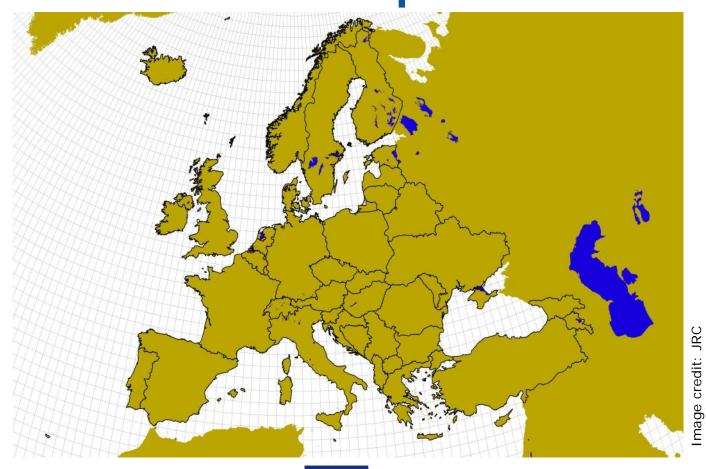


# Bridging the gap between policy-making and environmental research

Professor Anne Glover CBE
Chief Scientific Adviser
to the President of the European Commission

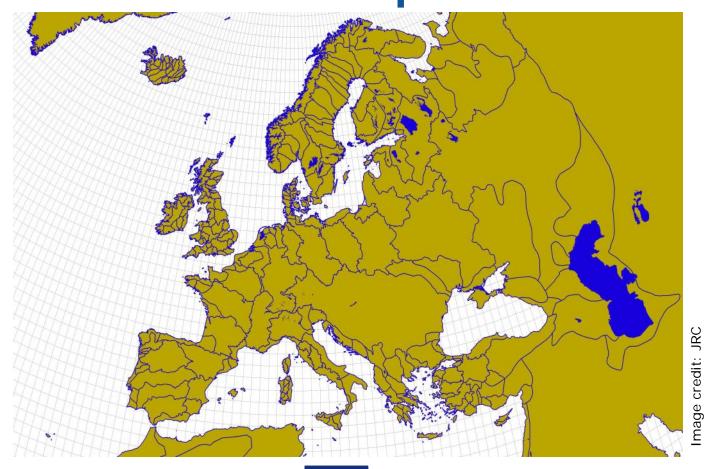


# The policy-maker's view of Europe





# The environmental scientist's view of Europe





# Why should politicians listen to environmental scientists?



Many political decisions in the EU depend on environmental research



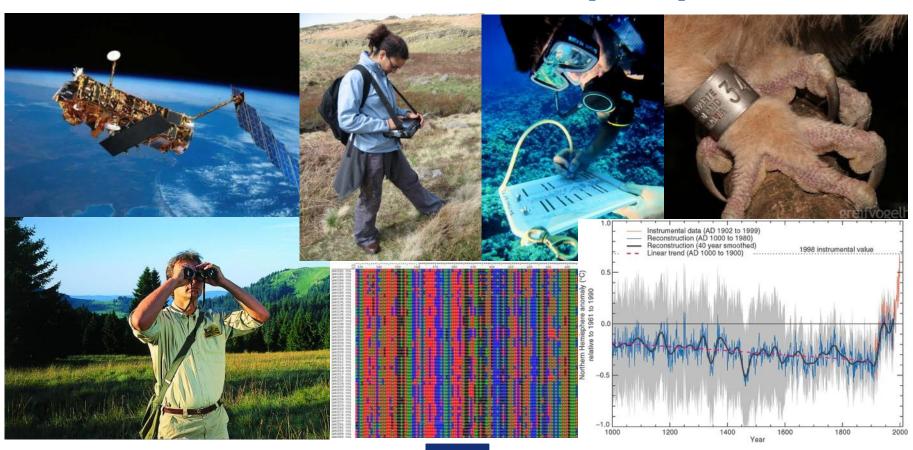


# Environmental research boosts the understanding of how our planet's life support systems work





# Environmental research provides the evidence to underpin policies





Environmental research provides helpful tools





# Environmental research helps politicians to avoid mistakes



Picture credits: NASA, Elena Senao

Aral Sea, 2000

Aral Sea, 2012



# How can environmental researchers ensure that policies are more evidence-based?



- 1) Speak up
- 2) Stand up
- 3) Gang up



### 1) Speak up

Science for the Environment Conference, Aarhus, 3rd October 2013



### Shout about what you do!





# Speak a language everybody understands!



Photo credits: Background Stadium Thomas Faivre-Duboz, forest taken from H.-D. Viktor Boehm (globalcarbonproject), Photo montage by Alan Belward, Joint Research Centre



# Communicate uncertainty in a straight-forward manner!

"I am taking a shot in the dark here"

"I am almost certain, but there are still a few remaining doubts to clear up"

Remote Unlikely Even Probably, Almost chance Likely certainly

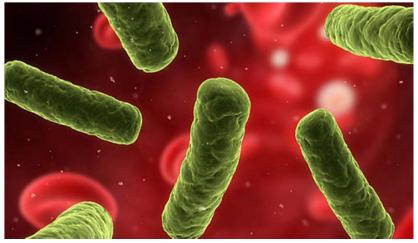
Source: Peter M. Sandman, David Spiegelhalter

#### Science for the Environment Conference, Aarhus, 3rd October 2013









Show empathy for public concerns!



# Offer options for action rather than claiming to have the ultimate solution

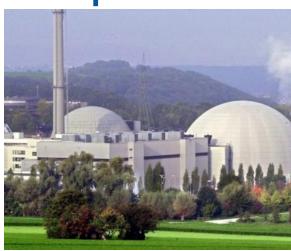
#### **Option A**



#### **Option B**



**Option C** 





### 2) Stand up



# Scientists should demand that politicians are open to listen to the scientific evidence: "Science makes you look good"





# Scientists need to raise their voice when science is being misused





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IOP PURUSHING

Environ. Res. Lett. 8 (2013) 024024 (7pp)

ENVIRONMENTAL RESEARCH LETTERS

doi:10.1088/1748-9326/8/2/024024

### Quantifying the consensus on anthropogenic global warming in the scientific literature

John Cook <sup>1,2,3</sup>, Dana Nuccitelli<sup>2,4</sup>, Sarah A Green<sup>5</sup>, Mark Richardson<sup>6</sup>, Bärbel Winkler<sup>2</sup>, Rob Painting<sup>2</sup>, Robert Way<sup>7</sup>, Peter Jacobs<sup>8</sup> and Andrew Skuce<sup>2,9</sup>

Scientists must insist that politicians don't cherry-pick the science that suits their view of the world

Environ. Res. Lett. 8 (2013) 024024 J Cook et al

**Table 3.** Abstract ratings for each level of endorsement, shown as percentage and total number of papers.

Position	% of all abstracts	% among abstracts with AGW position (%)	% of all authors	% among authors with AGW position (%)
Endorse AGW	32.6% (3896)	97.1	34.8% (10 188)	98.4
No AGW position	66.4% (7930)	<b>)</b> -	64.6% (18 930)	_
Reject AGW	0.7% (78)	1.9	0.4% (124)	1.2
Uncertain on AGW	0.3% (40)	1.0	0.2% (44)	0.4

<sup>&</sup>lt;sup>1</sup> Global Change Institute, University of Queensland, Australia

<sup>&</sup>lt;sup>2</sup> Skeptical Science, Brisbane, Queensland, Australia

<sup>&</sup>lt;sup>3</sup> School of Psychology, University of Western Australia, Australia

<sup>4</sup> Tetra Tech, Incorporated, McClellan, CA, USA

Department of Chemistry, Michigan Technological University, USA

<sup>&</sup>lt;sup>6</sup> Department of Meteorology, University of Reading, UK

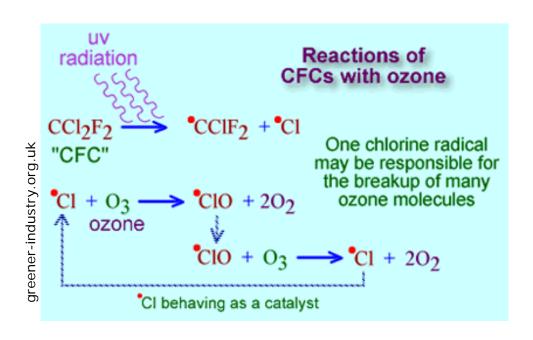
Department of Geography, Memorial University of Newfoundland, Canada

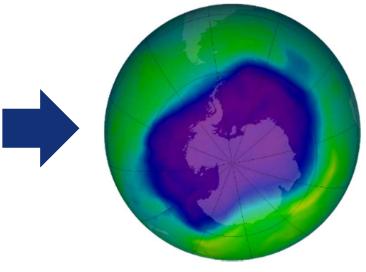
<sup>&</sup>lt;sup>8</sup> Department of Environmental Science and Policy, George Mason University, USA

<sup>9</sup> Salt Spring Consulting Ltd, Salt Spring Island, BC, Canada



# Let's talk more about scientific consensus – it's a powerful tool!







### 3) Gang up



#### Together we can send a strong message

Joint Research Centre (JRC) Chief Scientific Adviser

Academies and Learned Societies

EU Agencies (e.g. EFSA, EEA, ECDC)

Scientific Committees and Advisory Boards

European research organisations (e.g. CERN, EMBL...)

**EVIDENCE** 

European science associations (e.g. PEER)

Research-performing organisations and universities

**Industrial R&D** 

Citizen science





It takes a lot of efforts to generate scientific evidence.

We should make the best use of it.

http://www.ediblegeography.com/glacial-terroir



#### Thank you for your attention!



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