

# Science for Policy

*Francois BUSQUET*

# CAAT-Europe as Honest Broker

INFORMING POLICY THROUGH EVIDENCE



Universität  
Konstanz



INDEPENDENT  
REPRODUCIBLE  
RESEARCH

STAKEHOLDER  
PLATFORM  
FOR ALTERNATIVES  
TO ANIMAL  
TESTING



HUMANE SOCIETY  
INTERNATIONAL

ACCEPTED MANUSCRIPT

**Machine learning of toxicological big data enables read-across structure activity relationships (RASAR) outperforming animal test reproducibility**

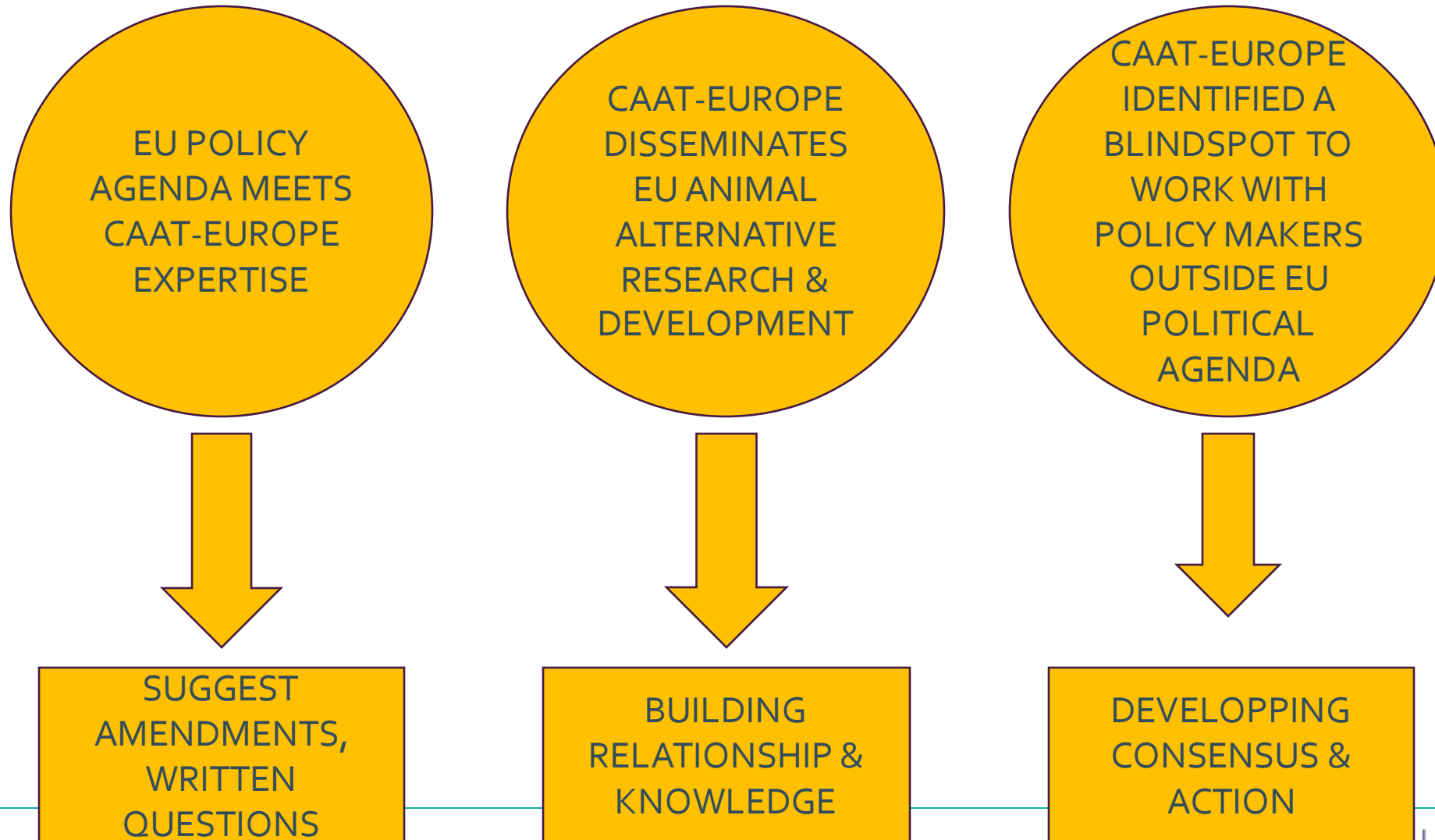


Thomas Luechtefeld, Dan Marsh, Craig Rowlands, Thomas Hartung ✉

*Toxicological Sciences*, kfy152, <https://doi.org/10.1093/toxsci/kfy152>

Published: 11 July 2018

# Interaction with Policy Makers



# Science 2.0

- People
- Data & information
- Sharing & collaboration



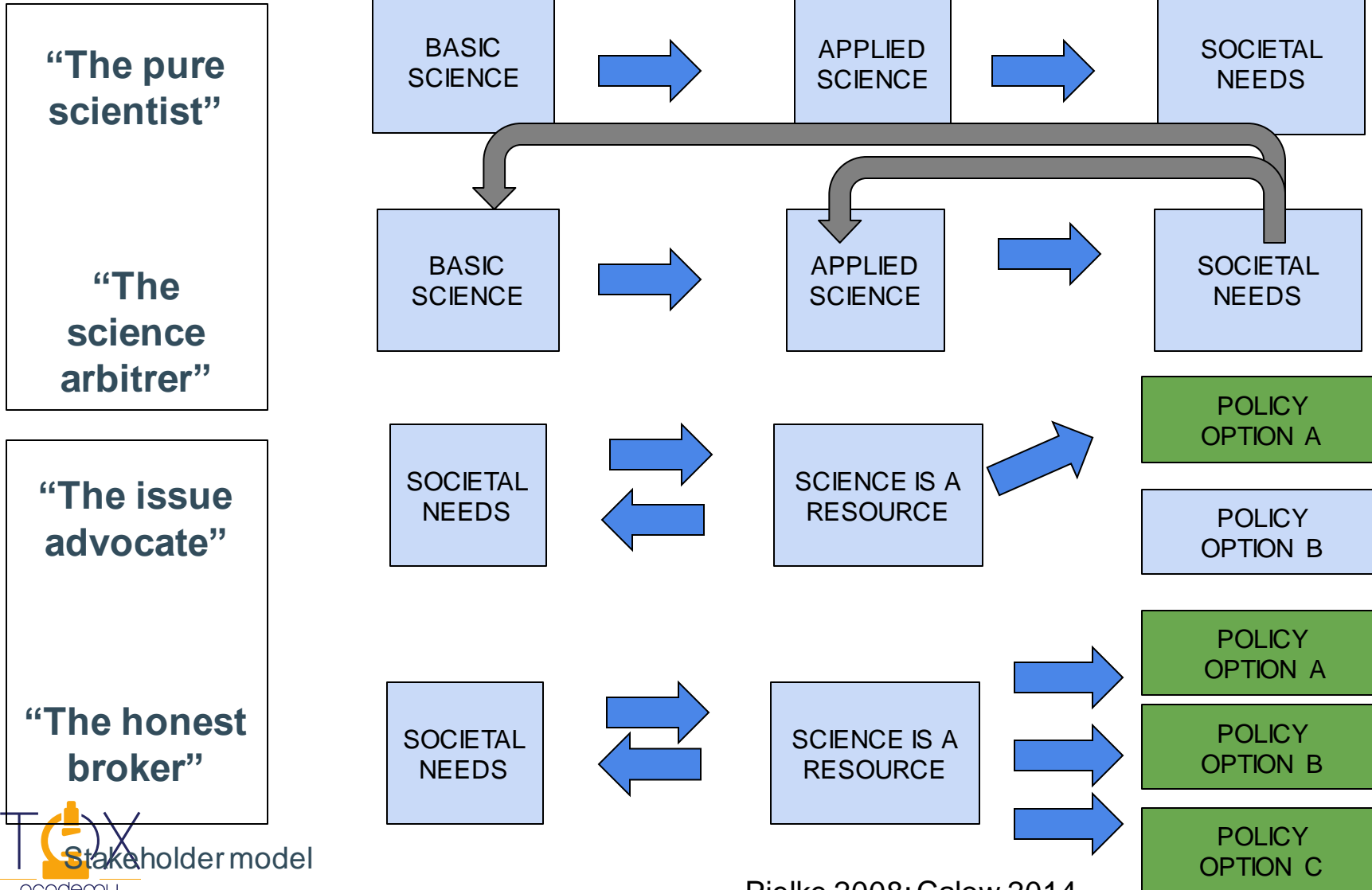
## Science 2.0 for policy:

- Collision  • Interaction
- One-way  • Dialogue & co-creation



# “The four idealised roles of science in policy and politics”

Linear model



Pielke 2008; Calow 2014

society driven by **facts** only is ...

society driven by **values** only is...

society driven by **facts and values** are...



**Value only**

Abortion  
(pro-life vs. prochoice)



**Simultaneously**

GMO



**Fact only**

Policy on earthquake  
detection

Policy questions can fall in each category or simultaneously



3

# Major Challenges



# Agendas

dominate the policy  
process





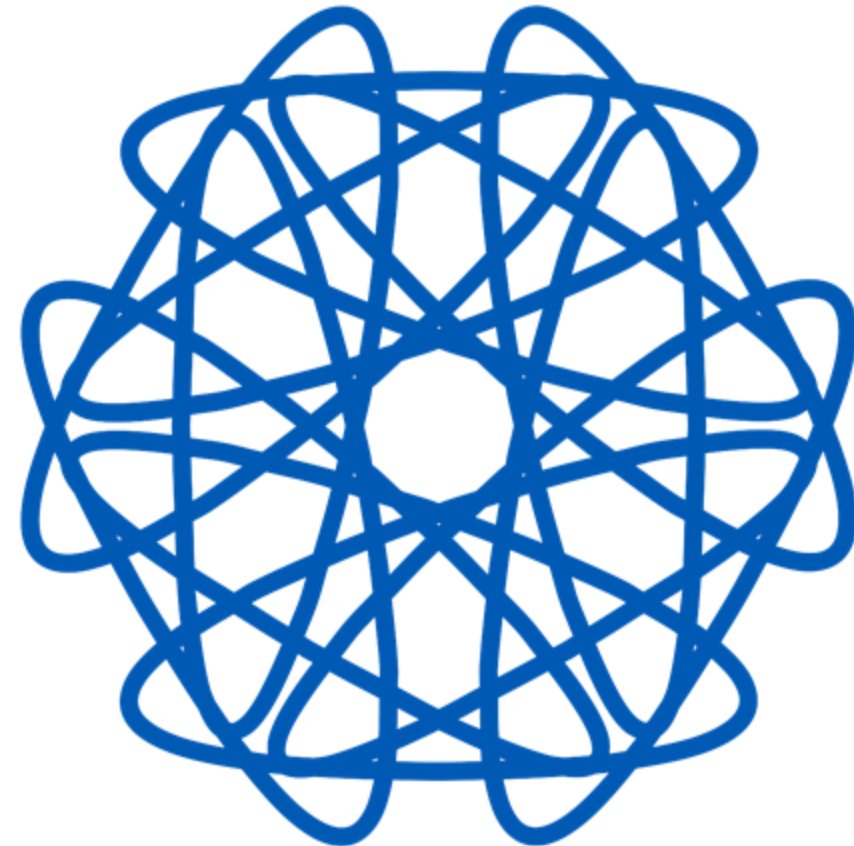
# Everyone has an agenda



Policy makers

**DO NOT UNDERSTAND**

science





New post on [European Parliamentary Research Service Blog](#)



## Scientists meet MEPs: a relation based on trust

by [Scientific Foresight \(STOA\)](#)

Written by [Zsolt G. Pataki](#) with [Riccardo Molinari](#),

To promote the role of science in ensuring a sound basis for public policies and political decisions, the European Parliament's [Panel for the Future of Science and Technology \(STOA\)](#) organised 'Science Week at the European Parliament', between 5-7 February 2019, in cooperation with the European Commission's [Joint Research Centre \(JRC\)](#), and the [European Research Council \(ERC\)](#). The week of scientific events



**VoteWatch Europe**



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## Background of the New Members of the European Parliament

% of MEPs with an educational background in technology and hard sciences



22%



32%

renew europe.

29%



24%



22%



21%



16%



15%



Central and Eastern Europe

27%



Western Europe

23%



Southern Europe

20%



Central and Northern Europe

18%

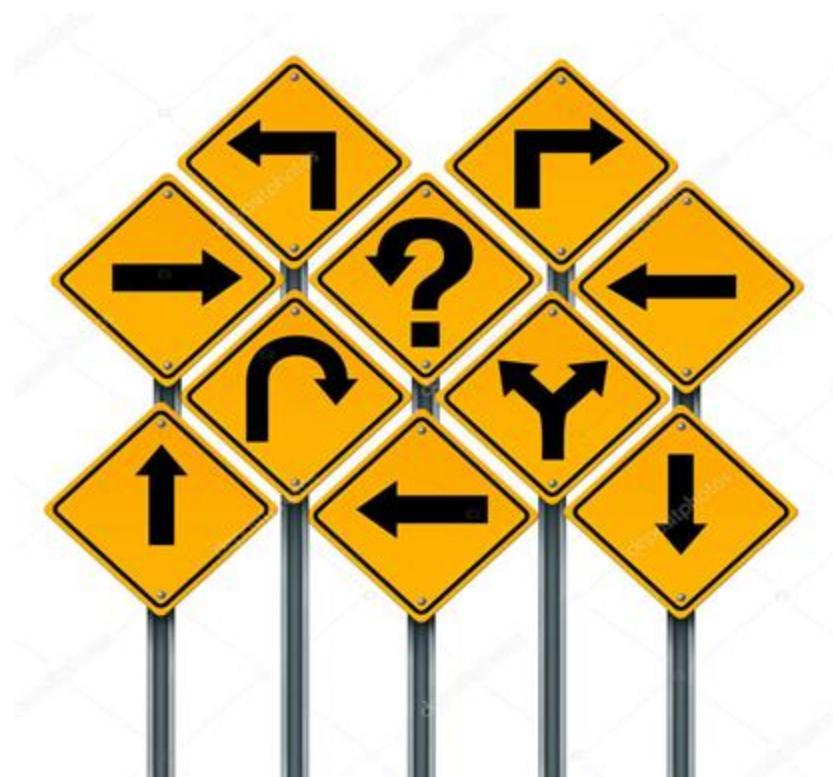
For more info, contact us at [secretariat@votewatcheurope.eu](mailto:secretariat@votewatcheurope.eu)

original vectors from freepik.com



Policy makers

# DO NOT GRASP UNCERTAINTIES





Often no option to wait, need to make decisions based on imperfect knowledge and uncertainties



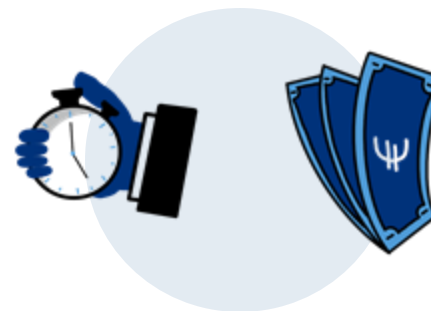
**Policy options, flexibility**



Reduction of uncertainties



Realistic or unrealistic ?



**Catch 22:**

*More science for more evidence can be a vicious cycle*



## Rank it!

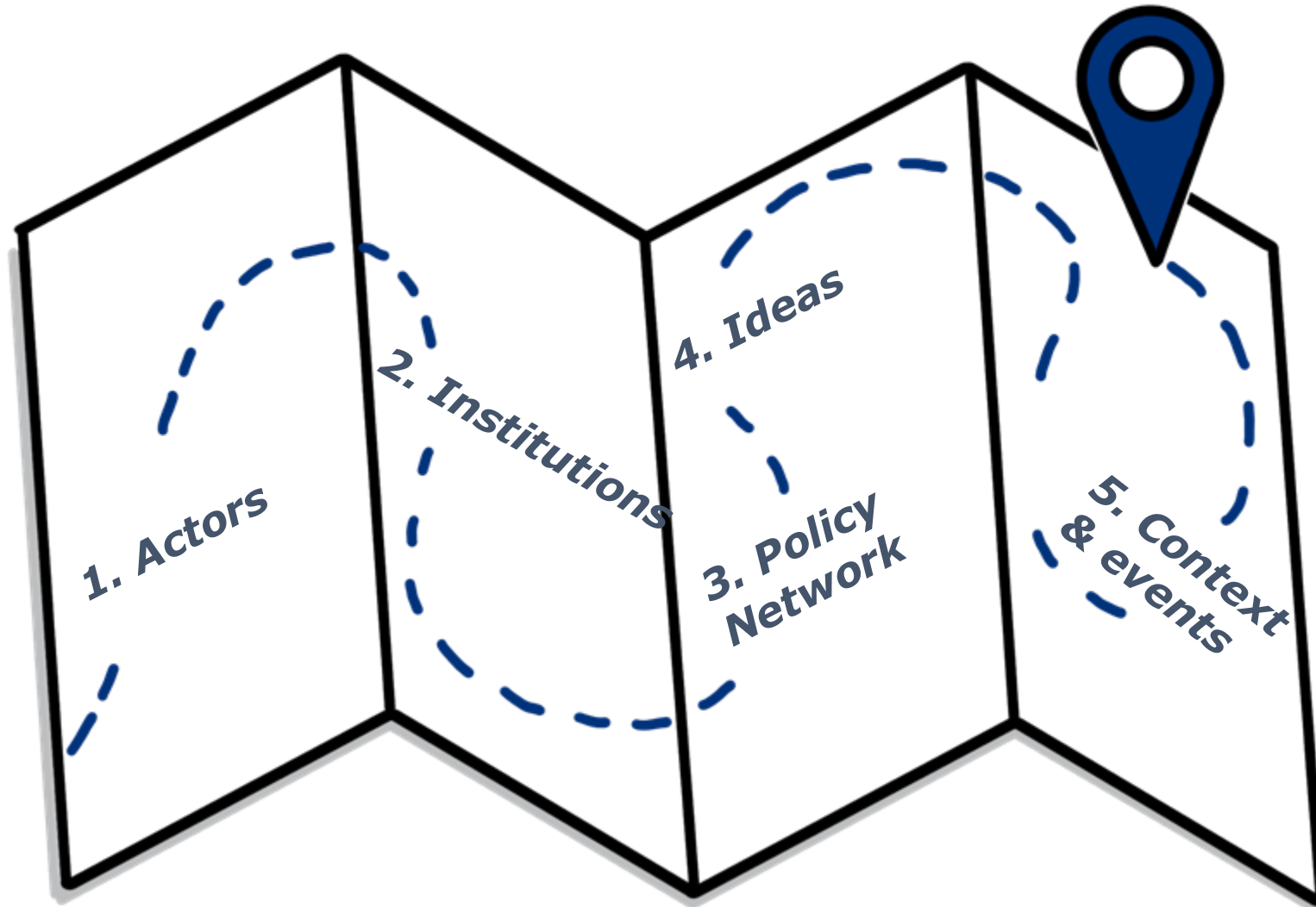
- known
- partially known
- unknown
- unknowable

## Frame it!

- methodology (expert)
- technology (data)
- epistemic (source of knowledge)
- societal (right ?)



# Mapping the policy environment



The politics of  
Evidence-based  
Policy making  
*Paul Cairney*

1) Stakeholders met by MEP Norbert Lins:

	Type	Organisation	Who
1	Industry	BASF	Dr. Thomas Christen
2	Ministry	Federal Ministry of Food and Agriculture Germany	Clemens Neumann
3	Industry	European Crop Protection Association (ECPA)	Graeme Taylor
4	Industry	AG Glyphosat	Dr. Thorsten K�chler
5	Industry	Industrieverband Agrar (IVA) (German Agrochemical Industrial Association)	Dr. Dietrich Pradt & Dr. Volker Kaus
6	Industry	Verband der Chemischen Industrie (VCI) (German Association of the Chemical Industry)	Dr. Utz Tillmann
7	NGO	Deutsche Umwelthilfe	Sascha M�ller-Kraenner
8	Industry	PROFEL	Bettina Breuer und Aline Rutsaert
9	NGO	Greenpeace EU	Franziska Achterberg
10	NGO	PAN	Dr. Angeliki Lysimachou
11	NGO	WeMove.EU	David Schwartz
12	NGO	Global 2000	Helmut Burtscher-Schaden
13	Agency	BfR	Prof. Dr. Andreas Hensel, Dr. Roland Solecki

2) Stakeholders met by MEP Bart Staes:

	Type	Organisation	Who	When
1	Academia	Faculty of Bioscience Engineering, Department of Plants and Crops, Ghent University	Prof. Dr. Ir. Pieter Spanoghe	January 2018
2	Industry	European Crop Protection Association (ECPA)	Graeme Taylor	11.04.2018
3	NGO	People for the Ethical Treatment of Animals Foundation (PETA UK)	Emily McIvor	24.4.2018
4	Ministry	Belgian Ministry of Health, Food Chain Safety and Environment	Maarten Trybou	4.5.2018
5	NGO	GLOBAL 2000	Dr. Helmut Burtscher-Schaden	14.5.2018 (together with Norbert Lins)
6	NGO	AVAAZ	Pascal Vollenweider	26.6.2018
7	Attorney	Baum, Hedlund, Aristei & Goldman	Attorney Robert F. Kennedy Jr., Attorney Michael L. Baum	5.9. 2018
8	NGO	Pesticide Action Network (PAN) Europe	Dr. Martin Dermine	5.9.2018
9	NGO	Belgian Bee Keeping Center for Research and Information (CARI), Utrecht University, Bee Life	Dr. Noa Simon Delso	5.9.2018
10	Academia	University of Natural Resources and Life Sciences (BOKU), Vienna	Prof. Johann Zaller	5.9.2018
11	Academia	Brunel University London	Prof. Andreas Kortenkamp	5.9.2018
12	NGO	Pesticide Action Network (PAN) Europe	Dr. Angeliki Lyssimachou	5.9.2018
13	Research Centre	UFZ - Helmholtz Centre for Environmental Research, Leipzig, Germany	Prof. Matthias Liess	5.9.2018



# Further readings...



European Commission

## 10 tips for researchers

# How to achieve impact on policy?

Today we face major policy challenges, which cannot be solved without scientific evidence. The European Commission's Joint Research Centre (JRC) has the mission to bring this science to policymakers. Here is our advice on how researchers can achieve policy impact.

### Start with policy 101

**Understand policymaking first.** What are the policy goals? How are decisions made? Who are the key actors? Follow parliamentary debates, discussions on Twitter, and participate in policy-relevant events organized by think tanks, political parties, etc. This will help you anticipate who may need relevant, timely evidence and when. Put yourself in the policymaker's shoes, empathising with their responsibility for decisions that may have serious consequences.

Joint Research Centre

Science for Policy Handbook

Edited by  
Vladimír Šucha and Marta Sienkiewicz

## THE HONEST BROKER

Making Sense of Science in Policy and Politics

ROGER A. PIELKE, JR.

CAMBRIDGE