Evidence-informed Policymaking
Matthew Flinders

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UPEN’s Threefold Mission

1. **Broker:** To harness the collective research power of UPEN members to increase the impact of research on public policy.

2. **Collaborate:** To collaborate with policy professionals to provide coordinated, diverse and efficient access to evidence and expertise.

3. **Learn:** To share learning and best practice around knowledge exchange and policy impact between UK universities.
“We can do more working together”

- The leading boundary-spanning platform connecting universities with policymakers
- Working across local, regional, devolved, national and international governments
- Represents over two-thirds of Higher Education Institutes in the UK
1. Broker

We are a ‘one stop shop’ – a central point for policymakers to connect with researchers
Evidence-Informed Policy-Making

Five Initial Ideas, Themes and Provocations
Professor Matthew Flinders
2. Collaborate

Working with stakeholders to improve the mechanisms of academic-policy engagement and shape the agenda
Building a network
Five initial ideas, themes and provocations.

1. What do we mean by ‘evidence’ and the challenges of knowledge synthesis?

2. Should researchers seek to ‘supply’ in relation to ‘demand’ or to proactively ‘shape demand’?

3. What are the incentives for policy-engagement, especially when it is very often a slow, messy and somewhat irrational process?

4. Why are the themes of ‘porosity’, ‘mobility’ and ‘absorption’ becoming so central to debate and discussion?

5. How do researchers learn the ‘rules of the game’ in relation to engaging with policy-makers?
Kristian Krieger

Policy Officer at European Commission, Belgium
Evidence-informed policymaking

Reflections from the European Commission’s Joint Research Centre

AESIS – Impact of Science 2022, Leiden, 22 June 2022

Kristian Krieger
What the JRC is
Five observations

1. COVID-19 had a massive impact on science for policy (not sure how lasting though).

2. Evidence-informed policymaking is no longer about stakeholder input, consultancy evaluation, and/or regulatory science only/mostly.

3. Research & Innovation policy is no longer only about scientific excellent or innovation for competitiveness.

4. Scientists and policymakers may however not be ready to support evidence-informed policymaking.

5. Nor are institutional systems in place.
1/ Frequent meetings
1/ “Follow the science”?

The scientific method?
Policymakers have taken scientific advice into account during covid-19, % responding
Survey of each country’s scientists*, May-June 2020

- Agree or strongly agree
- Neither agree nor disagree
- Disagree or strongly disagree

New Zealand | China | Argentina | Denmark | Germany | Netherlands | South Korea | Norway | Australia | Canada | Sweden | South Africa | Belgium | Turkey | India | Italy | Japan | France | Mexico | Spain | Russia | Britain | Brazil | United States

Source: Frontiers in Public Health

*25,307 researchers affiliated with Frontiers, a Swiss publisher of scientific journals
Better Regulation principles guiding EC policymaking
- Scientific evidence as “cornerstone”
- Research communities as partners to engage with early

Vision for public administration (PA) fit for future informing EC support for PA in MS
- Systematic consideration of scientific knowledge to address wicked problems

Co-creation with MS of policy framework for science and research
- Knowledge valorisation
- Inter-sectoral researcher mobility
- Feedback to policy
Scientists receive questions from policymakers and knowledge brokers framed in such a way that they can provide useful evidence-informed inputs. Policymakers seek out broad and diverse scientific knowledge, not only a single expert/study, to inform their policy deliberations and design. Policymakers have the skills to broadly understand and critically appraise scientific evidence and arguments. Scientific knowledge is synthesised, translated and formatted in a way in the eco-system that policymakers can use it easily.

Scientific knowledge is often not available at the right moment in time to be useful for policymakers.

### Qualities of the EU Science for Policy Ecosystems (n=469)

#### Do they ask the right questions?

- **Policymakers**
  - (Strongly) Agree: 15%
  - Neutral: 35%
  - (Strongly) disagree: 50%

- **Researchers**
  - (Strongly) Agree: 14%
  - Neutral: 23%
  - (Strongly) disagree: 62%

#### Do they consult a broad evidence base?

- **Policymakers**
  - (Strongly) Agree: 18%
  - Neutral: 27%
  - (Strongly) disagree: 55%

- **Researchers**
  - (Strongly) Agree: 14%
  - Neutral: 23%
  - (Strongly) disagree: 62%

#### Do they understand and/or appraise scientific evidence?

- **Policymakers**
  - (Strongly) Agree: 16%
  - Neutral: 28%
  - (Strongly) disagree: 57%

- **Researchers**
  - (Strongly) Agree: 14%
  - Neutral: 23%
  - (Strongly) disagree: 62%

#### Are they good at synthesising, translating and communicating?

- **Policymakers**
  - (Strongly) Agree: 50%
  - Neutral: 28%
  - (Strongly) disagree: 24%

- **Researchers**
  - (Strongly) Agree: 50%
  - Neutral: 28%
  - (Strongly) disagree: 24%

#### Is science too late for policymakers?

- **Policymakers**
  - (Strongly) Agree: 50%
  - Neutral: 28%
  - (Strongly) disagree: 24%

- **Researchers**
  - (Strongly) Agree: 50%
  - Neutral: 28%
  - (Strongly) disagree: 24%

(Strongly) Agree ■ Neutral ■ (Strongly) disagree
4/ Building capacity – Competence Frameworks

For policymakers:

For researchers:
4/ Sci4Pol competences for researchers

- **Collective** set of competences
- 5 Clusters of competences (A-E)
- A total of 27 competences
- Competence: knowledge, skills and attitudes
- 4 progression levels
4/ A glimpse at one competence cluster…

CLUSTER B. PARTICIPATE IN POLICYMAKING
8. WRITING FOR POLICYMAKERS

ATTITUDES
- Recognises the importance of written science-for-policy outputs for policymakers.

SKILLS
- Can contribute and draft science-for-policy outputs.
- Is able to initiate the process of effective science-for-policy outputs.

KNOWLEDGE AND UNDERSTANDING
- Is aware of the different elements that must be covered in a written science-for-policy outputs for policymakers.

FOUNDATIONAL
- Contributes to and is aware of written science-for-policy outputs cited or used by policymakers within/outside the administration.

INTERMEDIATE
- Writes, as the penholder, science-for-policy outputs cited or used by policymakers within/outside the administration.

ADVANCED
- Advises and supports colleagues writing science-for-policy outputs cited or used by policymakers within/outside the administration.

EXPERT
- Initiates science-for-policy outputs that transform the policy debate, i.e. transform the framing, the narrative, the actors invited to participate and the policy outcomes.
5/ A lot is already happening…

- Increased interest in building S4P capacity in MS
- EU support MS in building S4P capacity (ecosystems series, TSI)
- Changes in EU policy frameworks
- Better networking between actors, such as EU agencies, and more lesson learning from COVID-19
5/ …but still often not well-coordinated and connected

- Science for policy (or science advisory) ecosystems

Scientific councils
Science advisers
Expert committees
Foresight units
Regulatory agencies
Parliamentary offices of science & technology
Universities
National academies
Research centres
Learned societies

Professional norms
Sectoral policies
Better Regulation
Research policies
Public Administration Reform
Mandates

Training
Recruitment
Consultation
Evaluation
Impact Assessment
5/ Challenge of fragmentation

Scientists and policymakers lack well-supported opportunities to exchange ideas.

Fragmented ecosystems: organisations rarely coordinate their activities and are often not aware of each other.

Source: JRC Qualities of Science for Policy Ecosystems survey, n=616, May 2022
5/ Fragmentation at the EU level?

- Policies
- Advisory mechanisms
- Guidelines
- Funding programmes
- Projects
- Across different DGs
- Lack of mutual awareness and coordination?
5/ The consequences of fragmentation

“While policy making and public messaging during the COVID-19 pandemic continue to be informed by the latest scientific advice, the early months of the crisis exposed the uneven level of research and advice in different Member States, as well as the different approaches taken to providing and using that advice. This meant that evidence was patchy, sometimes contradictory and often confusing as a result of different messaging in different Member States.”

Conclusions

1. Policy frameworks are changing in favour of using scientific knowledge to inform policymaking.
   
   = evidence becomes more scientific?
   
   = incentives for policy engagement increase

2. Lots of institutional innovations and capacity building momentum.
   
   Co-creation, inter-sectoral mobility, and more

3. But: fundamental challenges remain: individual competences + institutional coordination
   
   rules of the game knowledge
Thank you

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Gowri Gopalakrishna

Epidemiologist & Public Health Policy Scientist,
Amsterdam University Medical Centers, the Netherlands
Evidence Based Research and Policy: reflections during Covid 19

Gowri Gopalakrishna; @gowrigopala
Amsterdam University Medical Centers
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Three themes

• Pandemic science

• Science Communication

• Evidence based (public health) policy

>> Reflections to safeguard trustworthiness in research
The day W.H.O. issued a global alert regarding the outbreak.
Rapid Review

Peer-reviewed journals have accelerated publication of studies on the coronavirus. One analysis of 14 titles, mainly in virology, found that the time to publish had dropped from 117 to 60 days.

https://www.nature.com/articles/d41586-020-01394-6
Flawed ivermectin preprint highlights challenges of COVID drug studies

The study’s withdrawal from a preprint platform deals a blow to the anti-parasite drug’s chances as a COVID treatment, researchers say.

Sara Reardon

Lancet, NEJM retract controversial COVID-19 studies based on Surgisphere data
Important distinction needed between the types of early research findings?

Research which have a more direct and immediate public health / patient impact e.g. clinical treatments, interventions, serological prevalence, model predictions need closer scrutiny and checks due to their potential for more harmful consequences when flawed
Questionable research

A survey of 6813 researchers at Dutch institutes found that many admitted to engaging in questionable research practices, as did data sharing statements from 924 registered COVID-19 trials.

- Researchers who reported fabricating and/or falsifying results: 8.3%
- Researchers who included insufficient study flaws and limitations in publications: 17%
- Researchers who did not submit negative studies for publication: 17.5%
- Researchers who reported engaging in at least 1 questionable research practice: 51.3%
- COVID-19 trials that declared their intentions to share individual patient level data: 17.3%

Sources: G. Gopalakrishna et al. MetaArXiv, 6 July 2021; R. Li et al. Trials 22, 153 (2021)
Access and coverage of covid 19 research

• Covid-19 preprints shared on Twitter > 90% & viewed 20x more (Besançon, L. 2021)

• **Young adults felt overwhelmed** by amount of covid 19 info
  • 59% very aware of fake news, but **only 25% reported it** (WHO report on social-media and covid-19, 2021)

**Up to 65%** of covid preprints cited in ECDC, WHO, UK government policy documents (Fraser N, 2021)
Post Truth Era

Interplay of these factors demands new approaches in Research (esp in a crisis?) Evidence based policy Science communication
Research

• Research quality:
  > Peer review: EASE Quality Statement, training of reviewers, recog & encourage open scholarly critique, using AI to an extent
  > Preprint Servers: MedArXiv first tier screening, warning banners, open data sharing
  > Red Team Approach: Review Commons; Outbreak PREreview (Wellcome Trust)

• Research wastage / duplication:
  > Centralized coordination of pandemic research funding
  > Fund living evidence syntheses eg. systematic reviews and meta analyses
Evidence based Policy

Good science defined by the use of correct methods

Some methods better than others

If participants are randomized that is good science; if not, it is less good science
No universally applicable hierarchy of evidence – though methods may be more or less fit for purpose

Good science defined by the use of multiple methods, adaptively and pragmatically, to build a nuanced narrative of what has happened and why

**Theory** is at least as important as method & narrative needs to make sense
Trust(worthiness) & Science Communication

- Transparency:
  - methods and data = open science
  - COI (financial and non financial)
  - Communicate uncertainty & why

Scientific literacy and critical thinking skills

Researchers (also) as science communicators esp. in social media era

https://www.allea.org
Discussion Paper 3#
Evidence-informed Policymaking

“There is a need to evolve the rigor and credibility of pre-print publications and to return some space for mono-disciplinary research.”