11.00 - 12.15

Science Policy Interface

Jarosław Górniak - Centre for Evaluation and Analyses of Public Policies Poland
Justyna Bandola-Gill – University of Edinburgh
Christine Weidenslaufer – Library of National Congress in Santiago

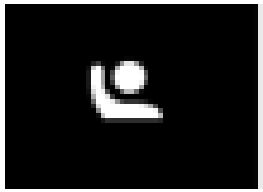
AESIS

Science Policy Interface

Sukiennice room

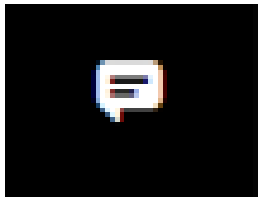
Impact of Science

4-6 November, Krakow



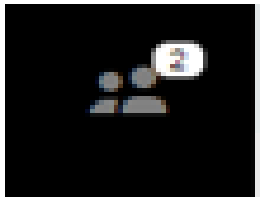
Broadcast permission:

- Turn on your microphone and/or camera
- Participate in the discussion



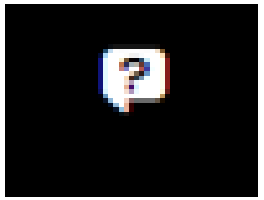
Conversations:

- General remarks
- Discussion
- News (links)



Who are the attendees?

- Speakers
- Participants



Q&A:

- (Targeted) questions
- Speakers answer the questions live

Lay out view:
Full screen, Tiled, Thumbnail

AESIS

#IoS20

SCIENCE POLICY INTERFACE

HOW TO ORGANISE EVIDENCE INFORMED POLICYMAKING INTERNALLY AND EXTERNALLY

AN INTRODUCTION

PROF. JAROSŁAW GÓRNIAK

CENTRE FOR EVALUATION AND ANALYSIS OF PUBLIC POLICIES

VICE- RECTOR OF THE JAGIELLONIAN UNIVERSITY IN KRAKOW

IMPACT OF SCIENCE AND EVIDENCE INFORMED POLICYMAKING

- Impact of science versus impact of scientists
- Towards research-intensive policy making – really?
- Out of an ivory tower – social impact as part of university mission
- The case of COVID-19 pandemic – a need for international comparative studies of science-policy interface

EVIDENCE INFORMED POLICY – POLICY ANALYSIS – EVALUATION

- Evidence informed policy – public policy using the best available and scientifically sound research evidence
- Policy analysis as the analysis for policymaking – providing policy makers with (evidence-based) advice on problems, causal mechanisms, instruments and potential consequences of the available options
- Evaluation as a source of knowledge about what works, for whom and in what circumstances

GOOD EVIDENCE

- Policy-relevant – justifying the choice of policy conduct and instruments
- Trustworthy
  - Sound theory – causal claims
  - Proper scientific methodology – research design and measurement
  - Dependable and up-to-date data
- Conclusive – providing recommendations capable of significantly reducing uncertainties of decision-makers

LIMITATIONS OF EVIDENCE INFORMED POLICY

- Policy decisions are based not only on evidence, but they are also prone to the influence of competing interests – every policy has its politics
- Institutional and cultural constraints matter
- Evidence may not match the political priorities of policymakers or societal preferences
- Priorities and societal preferences usually vary among stakeholders and across societies
- External validity of social research is more problematic than in medicine
  (“*what works there might not work here” –Cartwright & Hardie*)

LIMITATIONS OF EVIDENCE INFORMED POLICY

- The issue of policy scope, size and complexity: evidence based on causal research (what works) is often restricted to selected policy problems and is of limited use for complex reforms
- Communication problems – decision-makers use stories rather than pure scientific reports; there is a need for translation from the language of science into policy narratives
- Timing – politicians (like businessmen) have much shorter timescales than researchers
- The job of policy makers is to anticipate, rather than explain past events and processes, whereas social scientists prefer the latter

OUR SPEAKERS

Justyna Bandola-Gill

School of Social and Political Science

University of Edinburgh, UK

Associate Director of SKAPE – Centre for Science, Knowledge and Policy at the University of Edinburgh.

Co-author of the book *Impact Agenda: Controversies, Consequences and Challenges (Polity Press, 2020)*

Her research explores the intersections between research and policy, especially the ways in which knowledge is organised, governed and mobilised to achieve political goals

Christine Weidenslaufer

Lawyer at the Library of National Congress in Santiago, Chile

She graduated from the Universidad de Valparaiso (Chile), Mary's University, in San Antonio, Texas (USA) and the University of London (UK)

Analyst and researcher, specialized in Common law

Legal advisor to senators, deputies and congressional committees

She works on understanding how science and technology can improve the legislative process integrating evidence-based information.

WELCOME TO OUR SESSION!

JAROSLAW.GORNIAK@UJ.EDU.PL

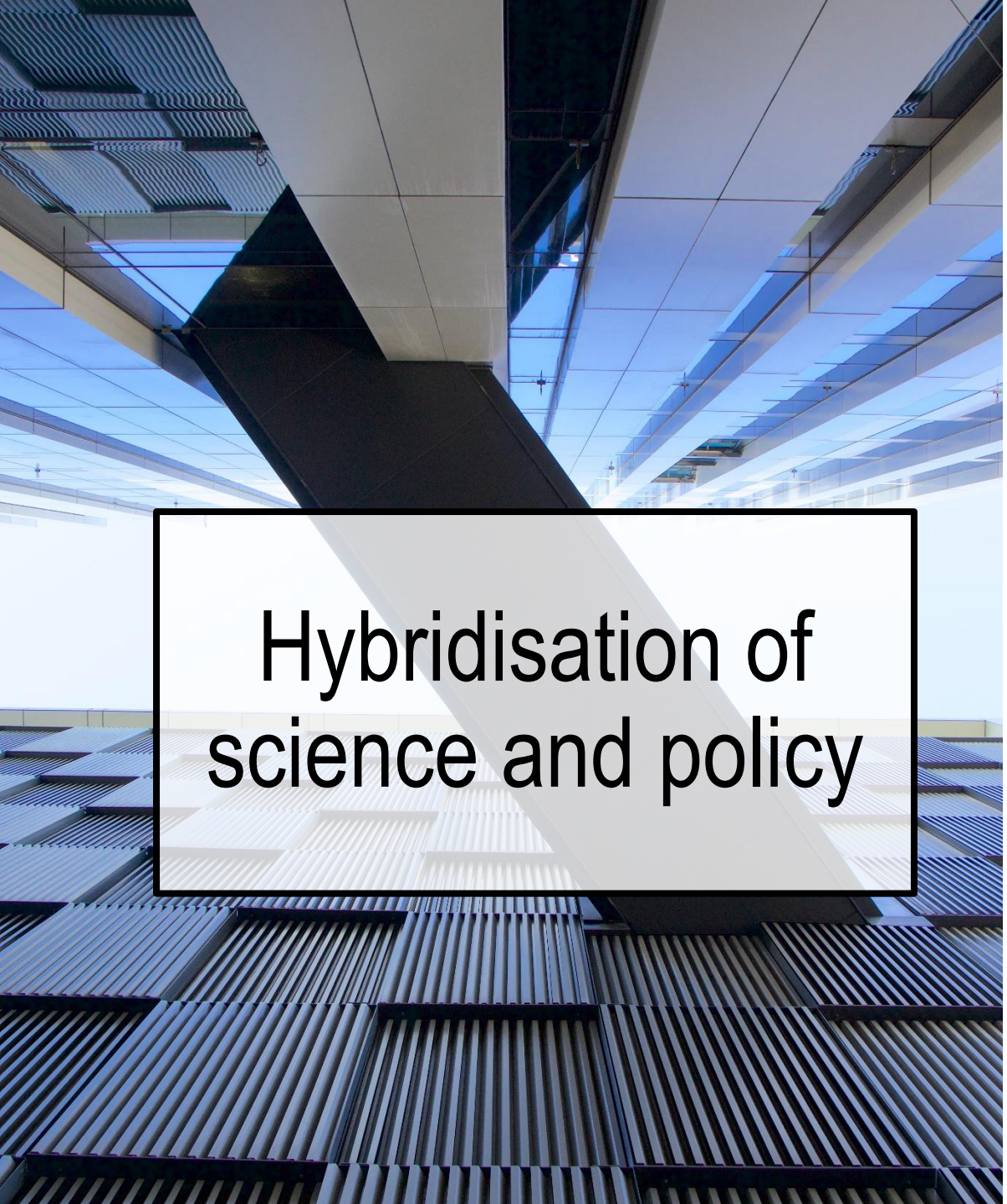
Science-Policy Interface: Navigating Political and Technocratic Accountabilities

Dr Justyna Bandola-Gill
University of Edinburgh

The Impact Agenda

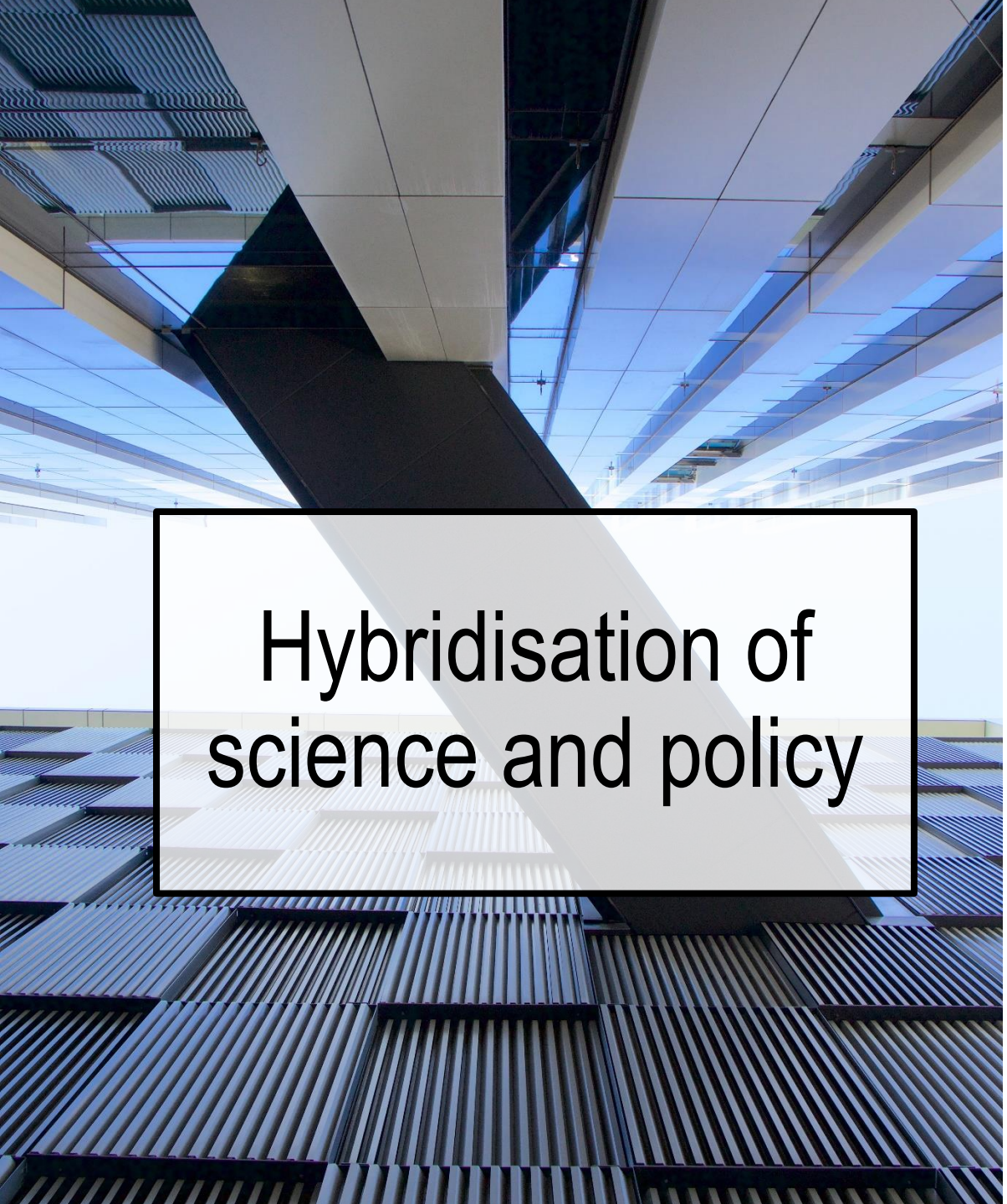
Controversies, Consequences and Challenges

Katherine (Kat) Smith, Justyna Bandola-Gill, Nasar Meer, Ellen Stewart, Richard Watermeyer



Hybridisation of science and policy

- Recent developments in Science Policy – for example the impact agenda
- Changing nature of policy problems – “normal” science is not sufficient
- The distance between Universities and their socio-economic environments is closer then ever



Hybridisation of science and policy

- Impact on how knowledge is produced and its epistemic qualities
- The difference between experts and scientists is increasingly blurry
- Policy knowledge vs scientific knowledge

	PRODUCING ACADEMIC RESEARCH	TRANSLATING RESEARCH	PRODUCING POLICY RESEARCH
Type of activities/strategies	Conducting primary research, publishing	Seminars, workshops, policy briefs, blog, website, media relations	Contracted research, evaluations, rapid reviews
Relationship to context	De-contextualised	Contextualising	Contextualised
Dominant institutional setting	Academic institutions	Academic or policy institutions	Policy institutions
Timescale	Long-term	Long-term or short-term	Short-term
Quality assessment criteria	Reliability	Applicability or reliability	Applicability
Type of impacts	Conceptual	Conceptual or Instrumental	Instrumental

Technocratic and political accountability

- Experts are legitimate as they navigate the constant tension between technocratic and political accountability
- Expert legitimacy is symbiotic – neither of the two can dominate
- This navigation happens on three levels: epistemic, individual and institutional

Three ‘bodies’ of expert legitimacy

Epistemic level – production of metrics

- Methodological robustness vs applicability

Individual level – distance to policymakers

- Informed insider vs independent assessor

Institutional level – cultures of evidence

- Technocratic centralisation vs flexible decentralisation

Conclusion

- Science-policy interface is malleable but also characterised by important epistemic and institutional differences
- Experts and academics are not the same
- Knowledge practices at the science-policy boundary require flexibility and high tolerance for paradox

METRΩ

More information

- Smith, K., **Bandola-Gill, J**., Meer, N., Stewart, E., & Watermeyer, R. (2020) *The Impact Agenda: Constructing, Debating and Challenging the Assessments of Research Impact in the UK*. Polity Press

- **Bandola-Gill, J.** (2020) *The Legitimacy of Experts in Policy: Navigating Technocratic and Political Accountability In The Case Of Global Poverty Governance.* Evidence and Policy. (online first)

- **Bandola-Gill, J**. (2019) *Between relevance and excellence? Research impact agenda and the production of policy knowledge*, *Science and Public Policy,* 46 (6) 895–905.

- **Bandola-Gill, J**., & Lyall, C. (2017) Knowledge Brokers and Policy Advice in Policy Formulation. In Howlett M., Mukherjee I. (eds), *Elgar Handbook of Policy Formulation*, pp. 249-265. Edward Elgar Publishing

Thank you!

Feel free to get in touch: Justyna.Bandola-Gill@ed.ac.uk

www.metro-project.eu

@METROprojecteu1

Chile's Technical Parliamentary Advisory Service (BCN-ATP):

SUPPORTING EVIDENCE-INFORMED LEGISLATION

CHRISTINE WEIDENSLAUFER

LIBRARY OF NATIONAL CONGRESS, CHILE

THE INFORMATION DYLEMMA

THE SILOS & PIPES STRATEGY (STOA, 2018)

SILOS: specialized communities of knowledge / expertise

PIPES: communication channels

SCIENCE-POLICY ECOSYSTEM

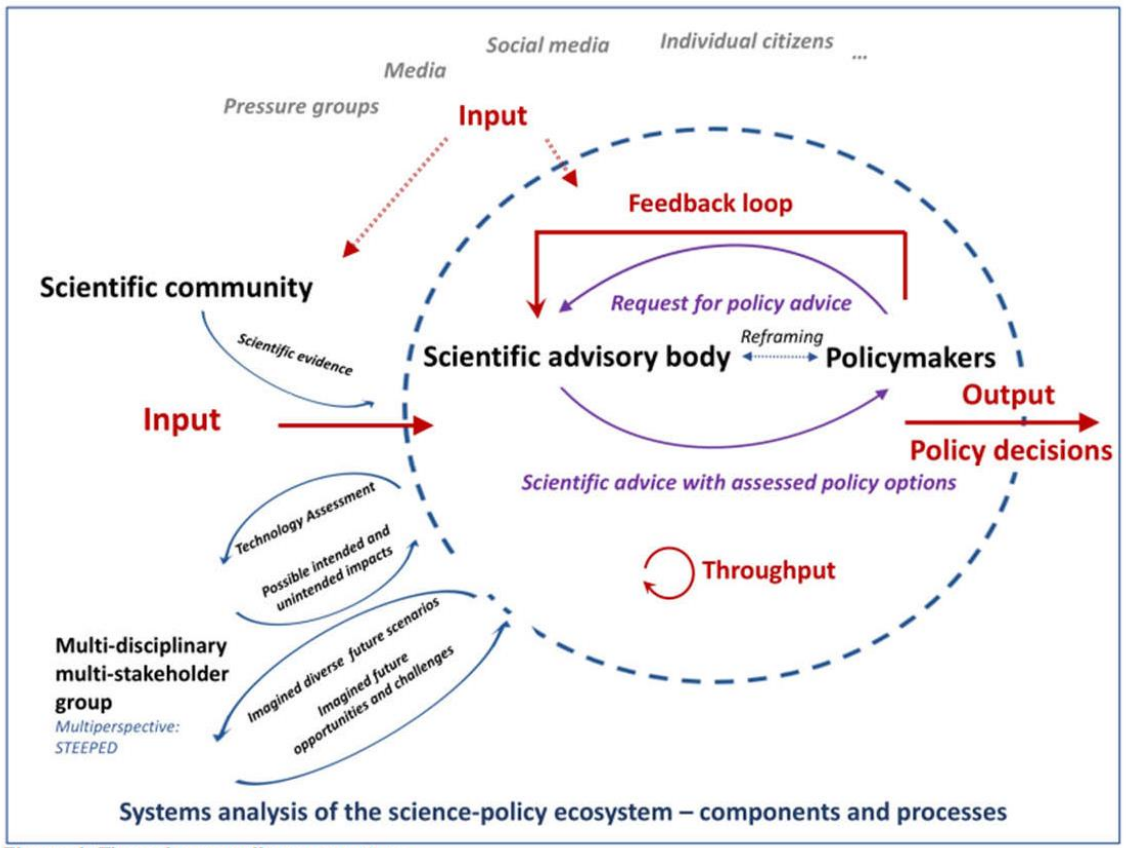


Figure 1. The science-policy ecosystem

Figure 1 depicts what Luhmann calls an 'open system', i.e., one in which the broader society exerts influence. The open system's most relevant actors are:

(Lieve Van Woensel, 2018)

SCIENCE-POLICY ECOSYSTEM

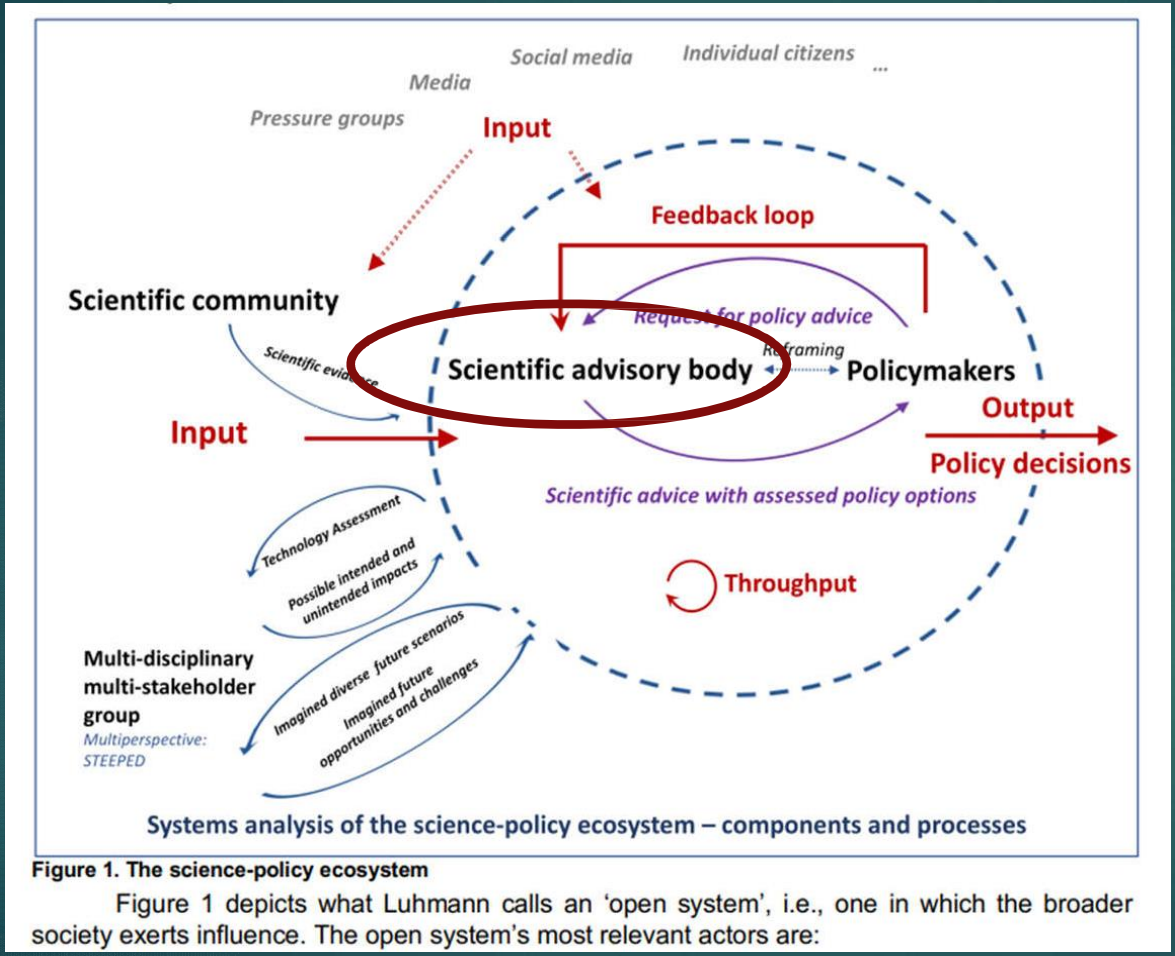


Figure 1. The science-policy ecosystem

Figure 1 depicts what Luhmann calls an 'open system', i.e., one in which the broader society exerts influence. The open system's most relevant actors are:

BCN

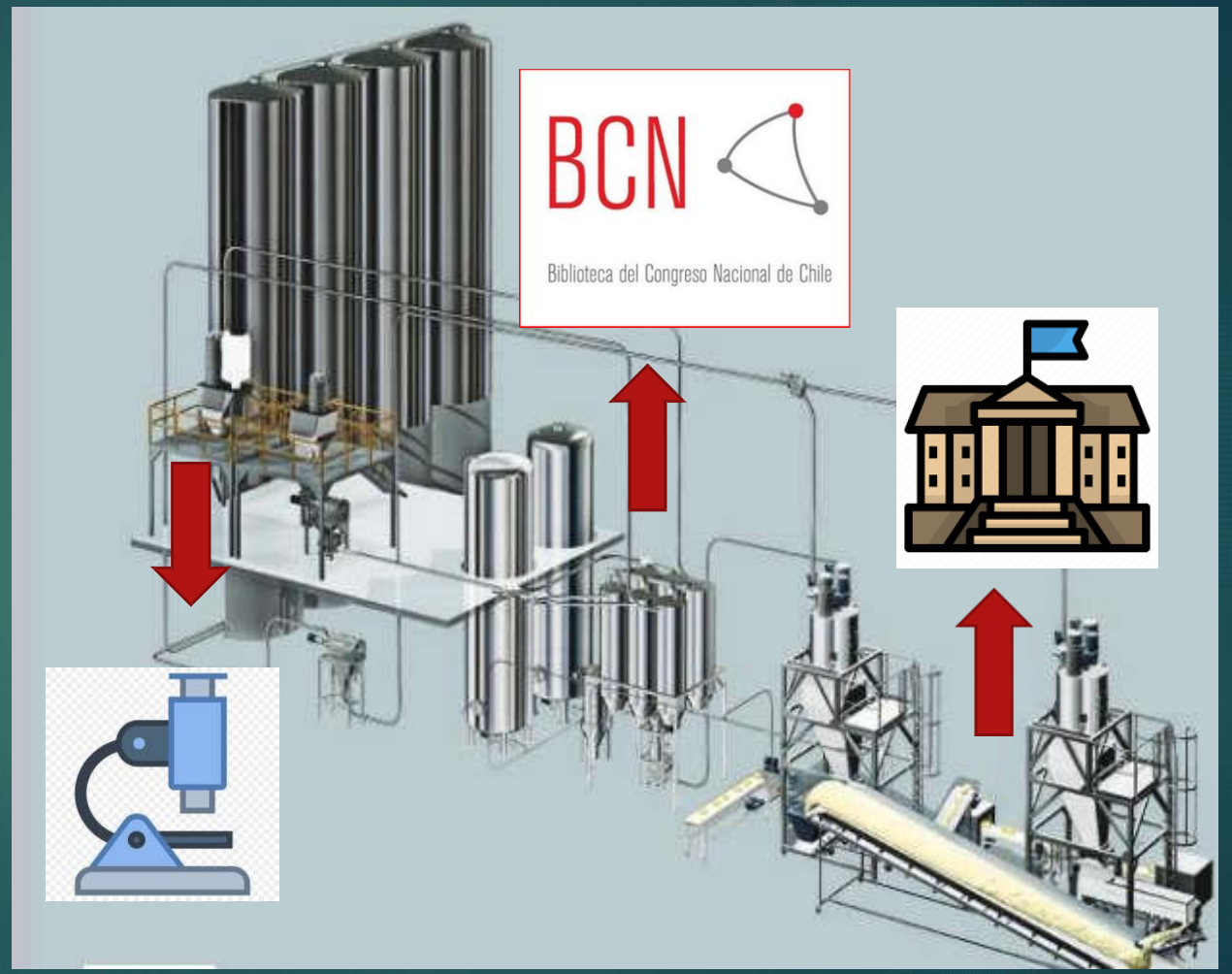
Biblioteca del Congreso Nacional de Chile

(Lieve Van Woensel, 2018)

BROKERS,

NOT

SCIENCE ADVOCATES



PARLIAMENTARY TECHNICAL ADVISORY SERVICE ("ATP")

- Only technical research institution within National Congress in Chile
- Goal: to reduce in part the asymmetry of information with the Executive
- Values: neutrality, technical quality, parliamentary oriented approach
- **Result: high levels of public trust and recognition since 2007**

BCN

Biblioteca del Congreso Nacional de Chile

BCN & ATP IN NUMBERS

135 YEARS OLD INSTITUTION

224 STAFF

US 18 MILLIONS BUDGET

US 2,5 MILLIONS BUDGET

12 YEARS

41 RESEARCHERS

13 PROFESSIONS +100 FIELDS OF EXPERTISE

85 % POSTGRADUATE EDUCATION

KEY ROLE OF BCN-ATP RESEARCH SERVICES

- **As trusted "key information brokers":**
  1. Identify and reframe questions from legislators
  2. Connect scientific work from research communities w/ legislators interests (silos & pipes)
  3. Recognize biases involved while staying neutral
  4. Deliver evidence in plain language w/ clear tables of findings
  5. In a timely manner

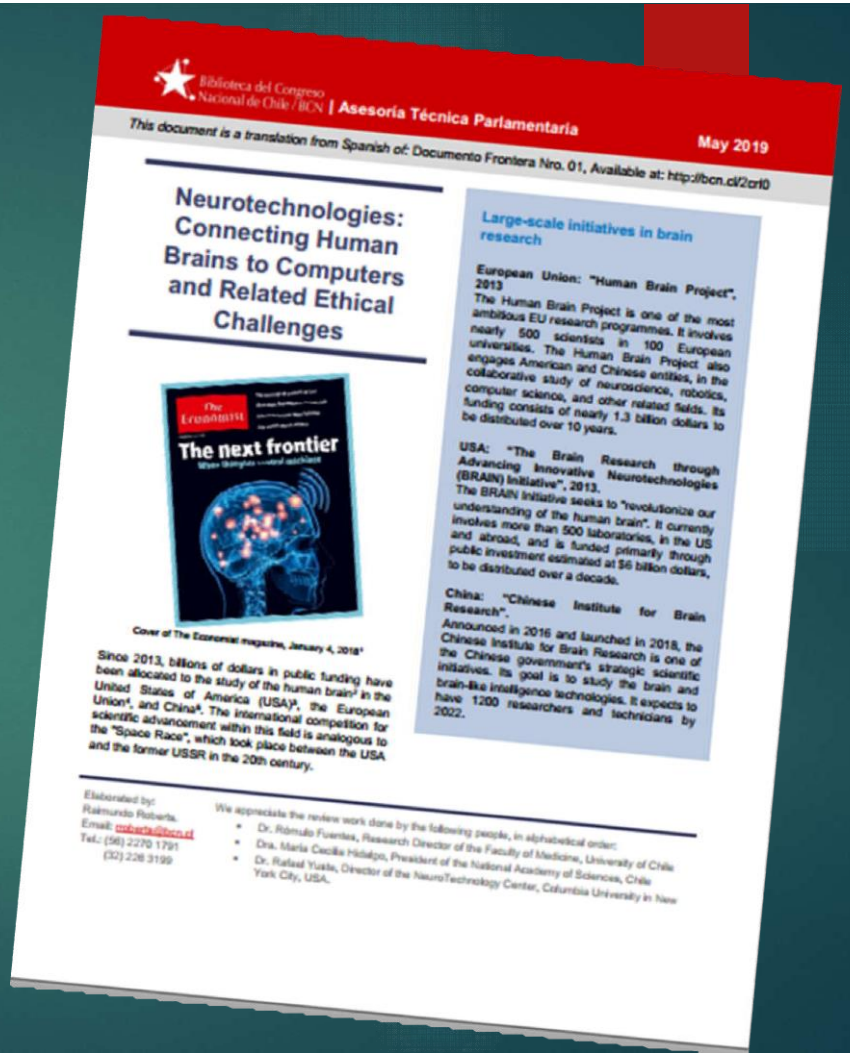
ORGANIZING EVIDENCE INFORMED POLICYMAKING AT THE CHILEAN CONGRESS

- Adapting research methodologies: Frontier reports, experts consultation
- Developing partnerships: ATP-Milenio Project and others
- Strengthening international networks: EPTA, Global TA, IFLA PARL

NEW METHODOLOGIES:

THE FRONTIER REPORTS*

*English version for EPTA



Biblioteca del Congreso Nacional de Chile / BCN | Asesoría Técnica Parlamentaria

May 2019

This document is a translation from Spanish of: Documento Frontera Nro. 01, Available at: http://bcn.cl/2crl0

Neurotechnologies: Connecting Human Brains to Computers and Related Ethical Challenges

Cover of The Economist magazine, January 4, 2018[1]

Since 2013, billions of dollars in public funding have been allocated to the study of the human brain[2] in the United States of America (USA)[3], the European Union[4], and China[5]. The international competition for scientific advancement within this field is analogous to the "Space Race", which took place between the USA and the former USSR in the 20th century.

Large-scale initiatives in brain research

European Union: "Human Brain Project", 2013

The Human Brain Project is one of the most ambitious EU research programmes. It involves nearly 500 scientists in 100 European universities. The Human Brain Project also engages American and Chinese entities, in the collaborative study of neuroscience, robotics, computer science, and other related fields. Its funding consists of nearly 1.3 billion dollars to be distributed over 10 years.

USA: "The Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative", 2013.

The BRAIN Initiative seeks to "revolutionize our understanding of the human brain". It currently involves more than 500 laboratories, in the US and abroad, and is funded primarily through public investment estimated at $6 billion dollars, to be distributed over a decade.

China: "Chinese Institute for Brain Research".

Announced in 2016 and launched in 2018, the Chinese Institute for Brain Research is one of the Chinese government's strategic scientific initiatives. Its goal is to study the brain and brain-like intelligence technologies. It expects to have 1200 researchers and technicians by 2022.

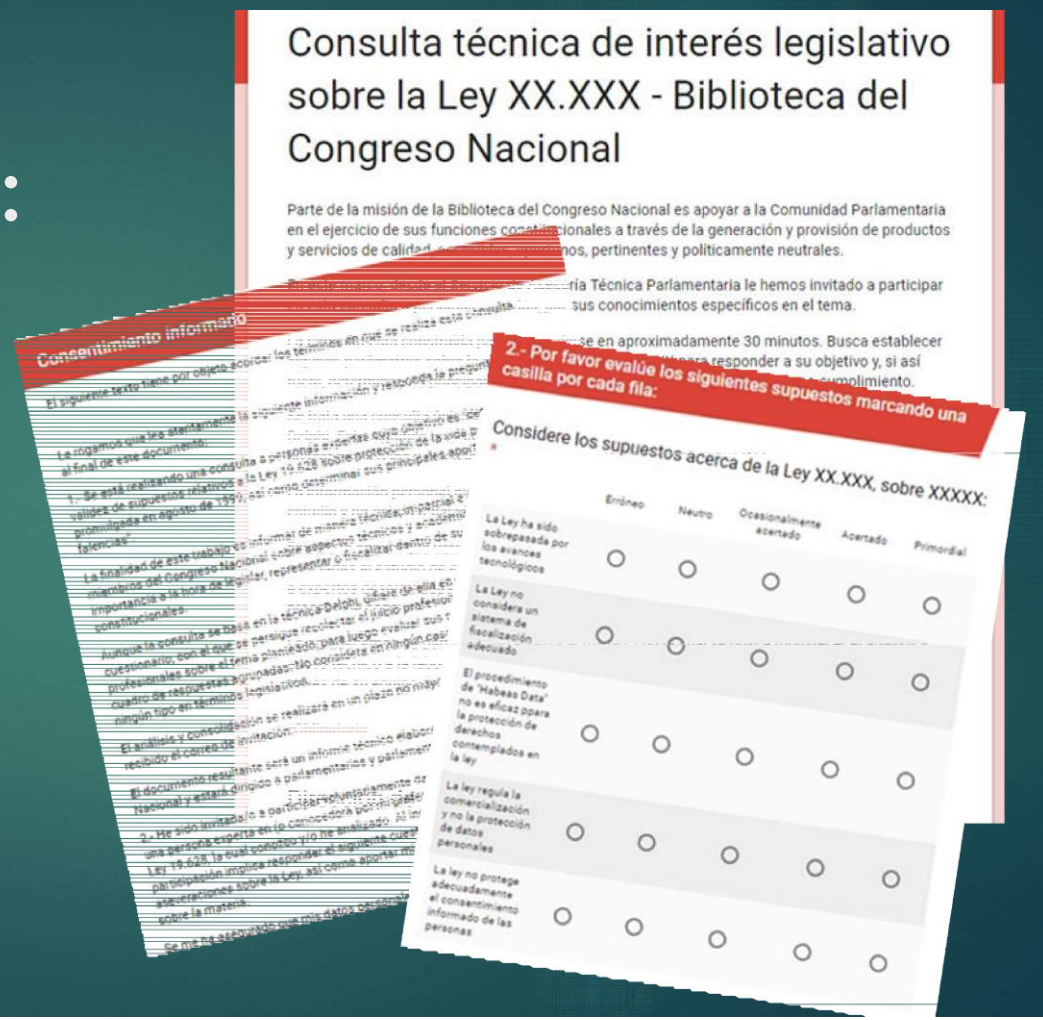
Elaborated by:
Raimundo Roberts.
Email: roberts@bcn.cl
Tel.: (56) 2270 1791
(32) 226 3199

We appreciate the review work done by the following people, in alphabetical order:

- Dr. Rómulo Fuentes, Research Director of the Faculty of Medicine, University of Chile
- Dra. María Cecilia Hidalgo, President of the National Academy of Sciences, Chile
- Dr. Rafael Yuste, Director of the NeuroTechnology Center, Columbia University in New York City, USA.

NEW METHODOLOGIES:

EXPERTS CONSULTATION



ATP-MILENIO INITIATIVE:

INFORME CIENTÍFICO PARLAMENTARIO
Iniciativa Científica Milenio
Biblioteca del Congreso Nacional-Asesoría Técnica Parlamentaria
Santiago, marzo de 2018

El agua como recurso vital

Overview

- La legislación chilena sobre aguas está en un proceso de actualización, para adaptarla a un contexto de cambios climáticos y sociales que están modificando el escenario no sólo de forma local sino mundial.
- Estos cambios principalmente se traducen en una mayor presión por el acceso al agua potable, la que repercute en la salud humana, en el estado del medioambiente, en la producción económica e incluso en la distribución territorial. En definitiva, repercute directamente en el bienestar del ser humano.
- Si bien la mayor parte de la población chilena tiene acceso a agua potable y servicios sanitarios, la variación del clima en los últimos años ha modificado el paisaje, la disponibilidad y el acceso del agua de amplias zonas del país.
- Considerando que existe información científica y técnica disponible para comprender con mayor profundidad las implicancias asociadas a estos cambios, a continuación, se entrega una visión panorámica de la información científica básica, para el estudio del agua y su situación en Chile.

El agua de la que disponemos es limitada

Considerando que el planeta está en gran parte cubierto de agua, parece difícil pensar en escasez. Sin embargo, el agua disponible para los humanos, y todas las especies que habitan los **ecosistemas (biodiversidad)**, es sumamente limitada.

Más del 97% del total de agua de la Tierra es salada (la mayor parte en los océanos), y sólo el 2,5% restante es dulce. De este pequeño porcentaje de agua dulce, casi dos tercios están congelados en los polos o en glaciares y un tercio[1] es agua subterránea: solo el 1.2% del agua dulce está en la superficie de la Tierra (Fig. 1). Dicho de otro modo: el agua dulce de ríos y lagos es sólo el 0.007% del agua total del planeta.[2]

El agua dulce que no está congelada y que fluye por la superficie se acumula principalmente por precipitaciones de lluvia, nieve o deshielos en cuencas de drenaje o **cuencas hidrográficas**, donde el agua drena por un río o una red de cauces, que desembocan en el mar (**exorreicas**) o que confluyen a un valle cerrado (**endorreicas**).

"Un mapeo de las cuencas permite entender los flujos de agua superficiales y calcular los volúmenes de entrada y salida en una zona delimitada".

En el norte del país el agua subterránea se utiliza principalmente para consumo humano y minería. En la zona centro en cambio, es para consumo humano y agricultura, principalmente.

¿Dónde se encuentra el agua en nuestro planeta?

Agua global total
Agua dulce
Agua superficial

AND THE FUTURE?

- Consolidate an institutional culture around evidence informed decision-making in Congress
- Strengthen and improve our own skills towards an effective evidence informed advisory service

(Lene Topp, JRC-EC, 2017)

Thank you!

Up Next

12.15-12.45	Break
12.45-13.45	Interactive Debate: Implementing Impact Policies