Translating evidence to policy: principles and practice

Sir Peter Gluckman ONZ FRS

Centre for Science in Policy, Diplomacy and Society,
University of Auckland

Chair, International Network of Government Science Advice
President-Elect, International Science Council

Lifecourse-INGSA meeting Copenhagen May 2019

Science and technology advice

Informing or influencing policy through evidence involves much more than simply providing policymakers and politicians with factual results of scientific and technological research and expecting that these results are applied to policy deliberations and decisions.

The evolving science-policy nexus

- The nature of science is changing
- The relationship between science and society is changing
- The nature of policy making is evolving
- The relationship between society and the policy 'elite' is changing
- Evidence informed policy making sits at the nexus of science, policy and society and the ecosystem itself varies – different needs in different contexts:
  - level of governance
  - different targets – politicians, policy makers, public, media, agencies, cities, international organizations
  - different purposes – from crisis to forecasting
- It is evolving into a distinct set of institutions and individual skills

Changing nature of science and technology

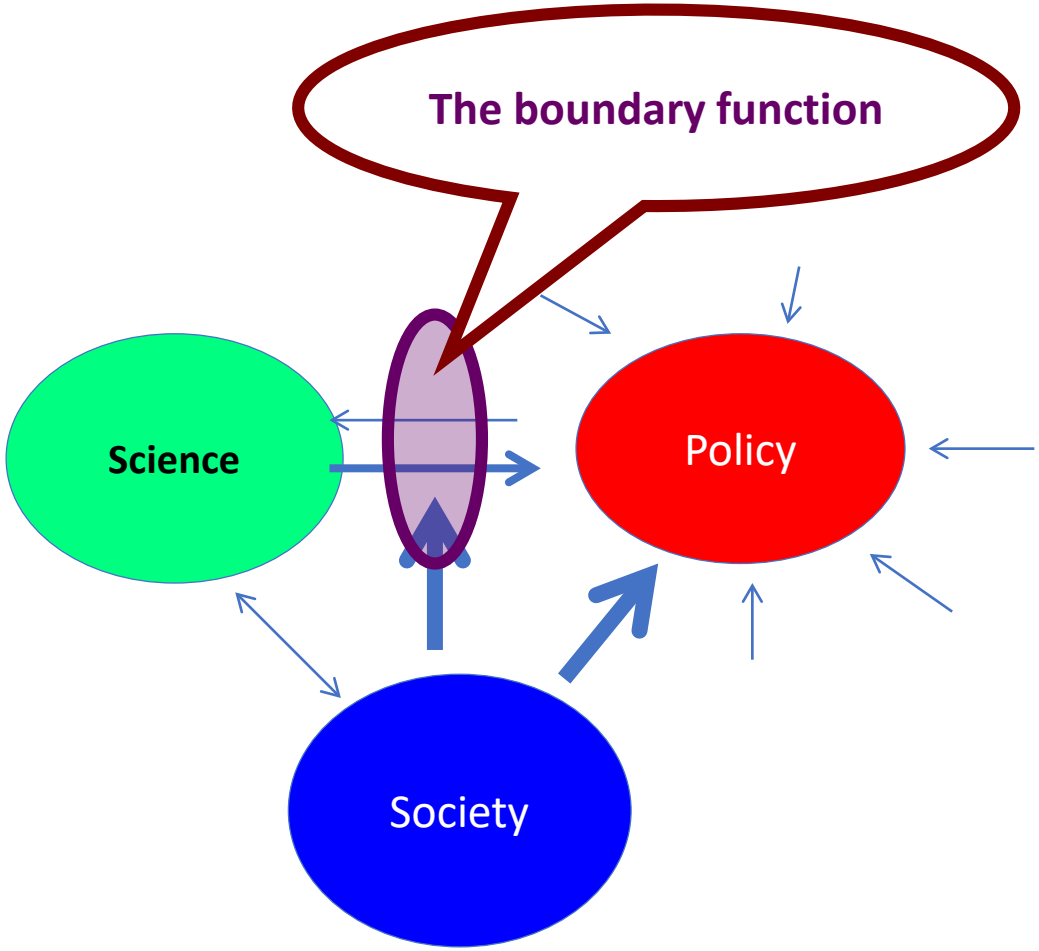
- From linear to non-linear
- From singular to multidisciplinary to systems- based
- Accepting complexity, from certainty to probabilistic

- The impact of big data and AI applied to big data

- From normal to post-normal…
  - The science is complex
  - The science is impacting increasingly on society
  - Facts uncertain, there is much which is unknown
  - Stakes are high
  - Decision making is urgent
  - There is a high values component and values are in dispute
- **The science applied or needed in the policy space is often 'post-normal'**

Science and policy making

- Science and policy making are very distinct cultures, methods and epistemologies
- The place of societal values is very different in science and policy making
- There is increasing recognition of the need for boundary structures to link these cultures.



The science – policy nexus

- Virtually every challenge governments face has a scientific dimension, which may or may not be recognised
- But science alone does not make policy; many values and political considerations
- We increasingly face the challenge of a post-expert, post-elite, post-truth world

- Presumption: *That governments are more likely to make better choices when they use well-developed evidence wisely*

- What is a fact, what is data?
- Is robust science available? Who defines it as 'robust/reliable'?
- Will it be used, misused, manipulated or ignored?

The science–policy nexus in a world of truth decay

The ease of information access has changed the public dynamic

The net is awash in 'facts' – and easy access allows many to assume they need no further interpretation

Whose facts are they?

The 'facts' selected are generally a biased set chosen by past framing, and the echo chamber of social and mainstream media generally reinforce prior biases.

This is the environment where experts can be ignored, deprecated or considered irrelevant.

This is the environment of post-facts, post-elite and post-truth

And yet policy makers still have to act and are expected to make good decisions!

Effective knowledge synthesis and brokerage is needed to address these limitations

There is a global trend of distrust in *mediators* -- doctors and scientists -- who can interpret and explain data……. With the advent of the Internet, people have the illusion they can access and read data by themselves, removing the need for technical and scientific knowledge."

A Grignolio speaking about the antivax movement

La Sapienza, Rome

Science and policy making

- Policy is rarely *determined* by evidence but policy can be and should be informed by evidence

- Inputs into policy
  - The science

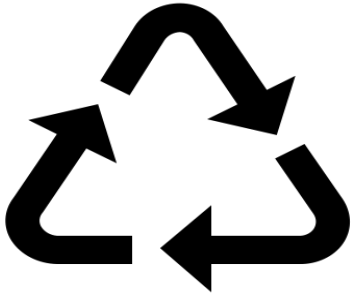
    Evidence of need, possible solutions, impact
  - Public opinion
  - Political ideology
  - Electoral contract
  - Fiscal objectives and obligations
  - Diplomatic issues and any international obligations

What is evidence ?

- Politicians and policy makers have many sources of evidence
  - Tradition and prior belief
  - Local knowledge
  - Anecdote and observation
  - Taxi drivers
  - Science
- Data does not equal information, does not equal knowledge/evidence
- Science is defined by its processes which are designed to reduce bias and enhance objectivity by minimizing values.
- Important value judgments lie within science especially over what question and how to study it and especially over the sufficiency and quality of evidence on which to draw conclusions.
- But the use of science by society is values rich – but in general these are a much more broader set of societal values

Policy-making

- Often has **mixed and not always clear objectives**. It is impacted on by acute externalities, as well as by political and societal values.
- It is about making **choices**
  - between different options,
  - which affect different stakeholders in different ways,
  - with different consequences,
  - many of which are not certain



- Virtually all policy making carries **complexity, risk and uncertainty**
  - But perceptions of complexity, risk, cost and benefit vary between stakeholders

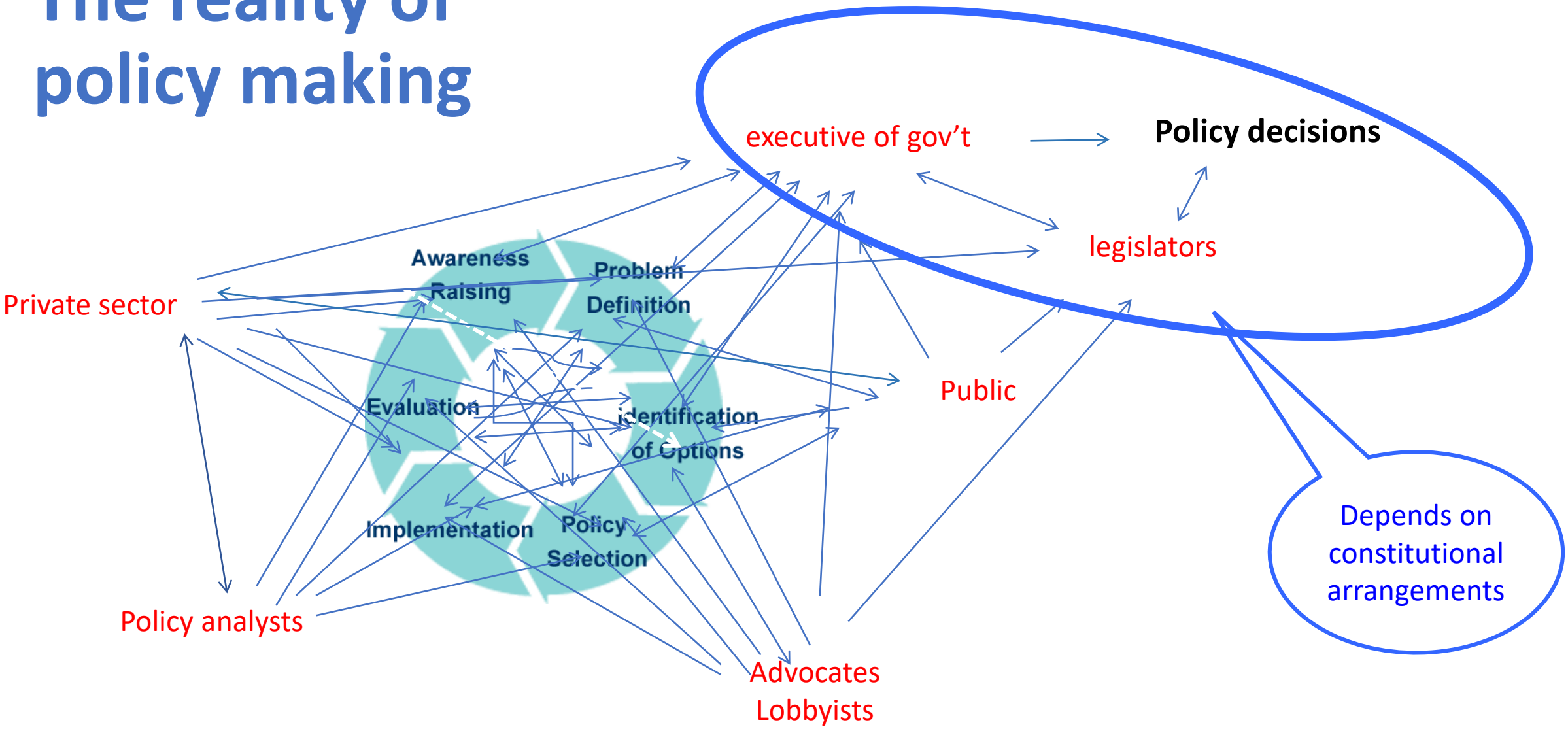
- The political perspectives of stakeholder effects, interests, electoral positioning and electoral risk are always present

The understanding of risk

- Actuarial/probabilistic
- Perceptional
  - The role of cognitive biases
    - Availability
    - Representational
    - Confirmational
    - Anchoring
    - Asymmetry
  - Perception of gains and losses, benefits and burdens
- Reputational and political
- The misuse of the precautionary principle

The myth of policy making

The reality of policy making



Questions that the policy audience will always have:

- Why do we have to do something now?
- Why is it a priority?
- Have we got the option that meets our broader needs?
  - Who will it benefit, who wont it benefit?
  - Does it benefit priority stakeholders?
  - What are the risks and to whom?
  - What is the political risk of doing or not doing?
- What will it cost?

Scientists and policy making

- Scientists are
  - Good at problem definition
  - Very good at public advocacy
  - Less so at finding workable, scalable and meaningful solutions
  - They often approach the policy maker with considerable hubris.
  - They often do not understand the complex processes of policy making
  - They can have difficulty taking a multidimensional/ multidisciplinary perspective
  - They often fail to recognise that more science will not generally resolve differing world views
- But they still have critical roles in the policy process

The challenge of science at the policy-societal nexus

- Too much science
- The changed nature of science
- The challenge of values within and beyond science
- The post-normal nature of much science
- Post-truth
- Mr Google
- Different perceptions of risk
- Different perceptions of expertise
- The behavior and reciprocal perceptions of scientists and policy makers

Policy makers

- Have limited bandwidth and often limited manoeuvrability
- They are constrained by electoral, fiscal and other considerations
- They lurch to problems, often driven by externalities
- The policy cycle is generally very short and getting shorter
- Much relevant science is incomplete and much is ambiguous
- They may see scientists as good at problem definition but not at pragmatic (in the policy/political sense) solution finding
- They cannot be expected to be scientific referees
- Policy makers see evidence is one of a number of inputs
    - In what sense is it privileged and how is that privilege maintained? The role of the broker?

Barriers on the 'policy' side

- Policy directed evidence versus evidence informed policy (the policy-political interface)
- Turf protection, Hubris
- Not recognizing when science is needed or can help
- Assumption science cannot help in complex issues where knowledge is contested
- Policy silos
- Scientific silos
- Past exposure to scientists as advocates /lobbyists
- Lack of understanding of the scientific process and value
- Misuse of evidence synthesis hierarchies
- Superficial approaches to data analytics
- Mr Google and Mr Wikipedia
- Trend in public policy training has shifted towards policy management

One Insider's view of policymaker's hierarchy of evidence

1. Expert opinion (including consultants and think tanks)
2. Opinion based-evidence (eg lobbyists, pressure groups)
3. Ideological evidence (party manifestos)
4. Media evidence
5. Internet evidence
6. Lay evidence (anecdotes of constituents)
7. Street evidence (conventional wisdom)
8. Cabbies' evidence
9. Research evidence

- Phil Davies; former dep Chief Social Researcher 2007 quoted in What Counts for Evidence Nutley et al 2013

Different roles in a science advisory ecosystem

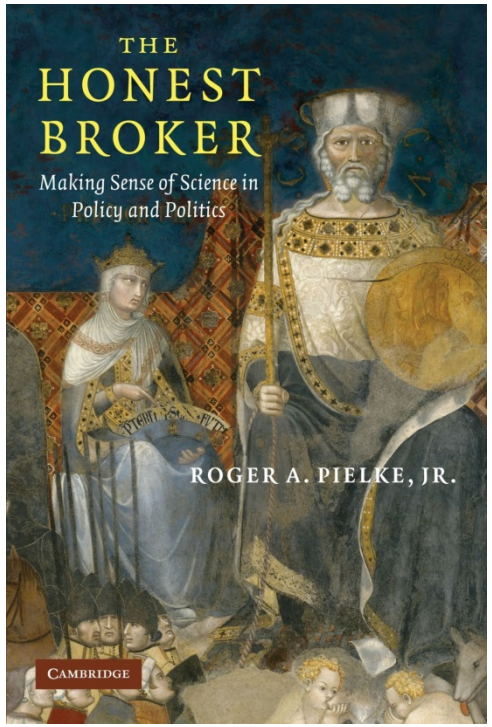
	Knowledge generators	Knowledge synthesizers	Knowledge brokers	Policy Evaluation
Individual academics	+++	++		+
Academic societies/professional bodies		+		
Government employed practicing scientists	+++	+		++
Scientist within regulatory agency	+	++	++	
Independent think tanks		+++	+	+
What works units etc		+++	+	++
National academies		+++	+	
Government advisory boards/science councils		++	+	
Science advisors to executive of government		++	++++	
Science advice to legislators		+	++	±

The nature of advice

	Policy for science	Evidence for policy: options	Evidence for policy implementation	Evidence for policy evaluation	Horizon scanning	Crises
Individual academics	+	±	±	±	±	
Academic societies/profess'l bodies	+++	+	+	±	±	
Gov't employed scientists		+	++	+	+	+
Scientists within regulatory agencies		+	++	++		
Independent think tanks		+++	±	±	+++	
What works units etc			++	±		
National academies	+++	+			+	
Gov't advisory bds/science councils	++	+	+		+	
Science advisors	+	++++	++	++	++	+++
Advice to Legislators	+	++		+	+	

Advocacy versus brokerage

- **The Issue Advocate** is the scientist who collects and presents data with a view to servicing a cause
- **The Honest Broker** tries to identify and overcome biases to present what is known, what is not known, what is the scientific consensus, what are the implications for policy and action and the tradeoffs of various options



Roger Pielke, Jr (2009)
The Honest Broker

Purposes of evidence in informing policy

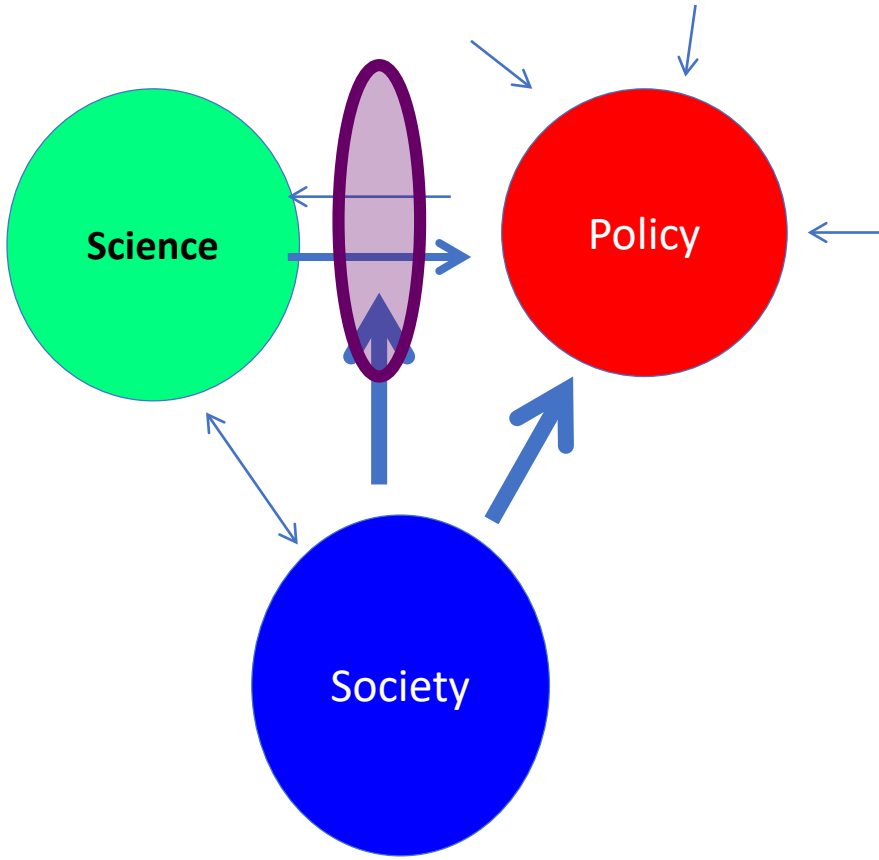
- To provided explanation of complex (open) systems so options can be explored
- To define options for action to achieve a particular outcome(s) and explore implications of each option

- To address a particular implementation issue or scientific question
- Emergencies/crises

- To define and plan an intervention
- To evaluate the impact and effect of the intervention

The interface

- The policy process ultimately always involves public values
- Public values are not necessarily responsive to more evidence
- Science can be used as a proxy in values debates
- Science has still to understand best how to have dialogue with and impact on collective knowledge
- This is made more complex by ‘e-democratization’ of knowledge - echo chambers, information bubbles, diminished collective diversity of knowledge formation, leading to claims of self –expertise.
- And truth-decay affects this further
- Trust in science is also affected by factors internal to science
- Lessons from post-normal science need to be turned into practice



Lesson 1: Solicited vs unsolicited reports, understand the policy process

- **Always have an interested customer** – Reports that do not have an agreed customer who is actively seeking the information are unlikely to be impactful on the policy process
- It is critical to **understand the policy process and key players** in the particular entity of interest – One can then create the customer.
- **Decide on the nature of the output** (s) – it is a comprehensive report, a policy brief, or some other format.
- **Decide the process** – agree that preemptively with the customer

Lesson 1: Solicited vs unsolicited reports, understand the policy process

- **Creating the customer**
  - Identify who is the customer
  - Verbal or brief letter (following policy brief guidelines) stating the problem, why it is important, why now and..
  - Offering to
    - Work with policy makers
    - Provide a report or a more extensive briefing note
  - The only objective at this stage is to create a customer
  - Do not overwhelm them at this stage with information or complexity

Lesson 2: Defining the problem is critical

- Too often the question the customer (ie the policy-maker) wants answered is not the the same as the question in the mind of the academic.
- Alignment of intent is critical.
- Reports can have multiple purposes and the authors must be clear what is the intent:
  - Is it to explain a system?
  - To provide options?
  - to address a particular problem?

Lesson 3: Timing is everything

- Policy makers have limited bandwidth
- They lurch to problems as they arise
- The policy cycle is often messy, complex
- Externalities can shift priorities rapidly and change the potential for impact

Lesson 4: Remember all of the stakeholders

- Don't underestimate the value of stakeholder analysis
- Understand the impact on each stakeholder and their influence
- Recognize the inevitable cognitive biases including your own
- Recognize the differing perceptions of risk and precaution, cost and benefit

Stakeholder mapping

High

Their interests must be considered seriously

Key players

Influence

Low

They may not have direct involvement but are there spillover consequences that also must be considered

How to address their interests but in perspective

Low

Impact

High

Lesson 5:
Provide practical and scalable options/ways ahead/solutions

- Policy makers will generally not pick up a problem unless there is a solution.
- It is rare for a problem definition alone to change policy.
- Solutions must be practical; affordable, policy and politically acceptable and, where appropriate, scalable.
- In general this means incremental versus disruptive change.
- But this does not mean sacrificing intellectual integrity

Lesson 6: Remember who you are writing for

- Many academic reports never get read
- Too many are written for the benefit of the writers, not for the benefit of the audience
- Consider that most reports will need top have multiple audiences
- Style matters, and graphics can matter a lot
- Think about the power of narrative
- Clarity and avoidance of jargon is critical

Lesson 7:
Be inclusive of scientific disciplines

- Policy makers need to look at policy issues in a multidimensional way.
- Nothing is purely technical
- Policy makers look at issues through more than one angle
- There is always a values-based and political lens
- Consider the spillover effects: both positive and negative

Lesson 8: Acknowledge the uncertainties

- Admitting to evidence gaps is not a sign of weakness
- Acknowledge where the evidence is less robust
- Policy makers are used to dealing with uncertainty

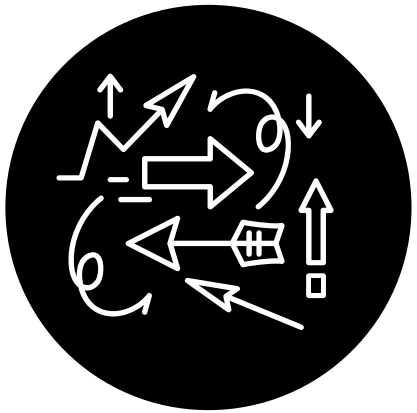
Lesson 9: Prepare the key audience

- If there is a key policy maker (analyst, or decision maker, or politician), don't surprise them.
- Keep connected, keep them informed of preliminary direction of any report or project
- Keep checking alignment and understandings between supplier and customer
- Think of the other questions the policy maker will have

Lesson 10: Writing a report is not impact

- Once the report has been submitted there are issues of:
  - ensuring the key audience understands (follow up)
  - Do other stakeholders understand?
  - Is there a need for PR?
  - Is there a need for further actionas /report/evaluation?

Lesson 11: Rules don't always work



The challenge of communication

- Multiple stakeholders with different needs
- How to communciate in a trustworthy way to the public, to policy makers to politicians
- Different perceptions of risk and precaution, cost and benefit
- Different interests
- Challenge of complex science, incomplete and ambiguous science, postnormal science,
- How to separate knowledge and values
- Jargon
- What science cannot answer
- Humility

Types of Policy Briefs

1. A policy brief to **proactively** draw attention to an issue (needs to strike a balance:
   - must be persuasive that the issue is real
   - But must not appear to demand a singular response.
   - The need for a policy response is implicit, but is ultimately the decision of the policy maker
   - Offer assistance

1. A policy brief to **respond** to a question or request

What do policymakers need and expect in a scientific policy brief?

Succinct advice

Plain-language

Hierarchical information and a 'punch line'

No definitive prescription

What is a policy brief?

- Short, (hopefully) neutral summary of what is known about a particular issue or problem
- A vehicle for providing policy advice/ designed to facilitate decision-making
- Evidence based
- Contains ‘news’ and evidence and **offers practical solutions/options /recommendations**

What is a policy brief?

- Easy to understand without specialised knowledge or additional reading
- Goal: to explicate the knowns and the unknowns of an issue and of the consequences of certain actions or inaction
- 800-1500 words max (shorter is better)
- A policy brief can contain:
  - Graphs, tables, photos that help to make the point
  - Bullet style text boxes
  - Very short list of references
  - Contact info (expert, department, organisation)

Targeting the brief

- Key to success for a policy brief is targeting the **right, most influential audience for the message**.
- Who is the key stakeholder?
- Who are other interested parties?
  - Decision-makers, NGOs, journalists, diplomats, researchers, administrators, public

Structuring the Brief: What to consider

- What is the problem and how has the policy maker framed it (or what drives you to propose it unsolicited)?

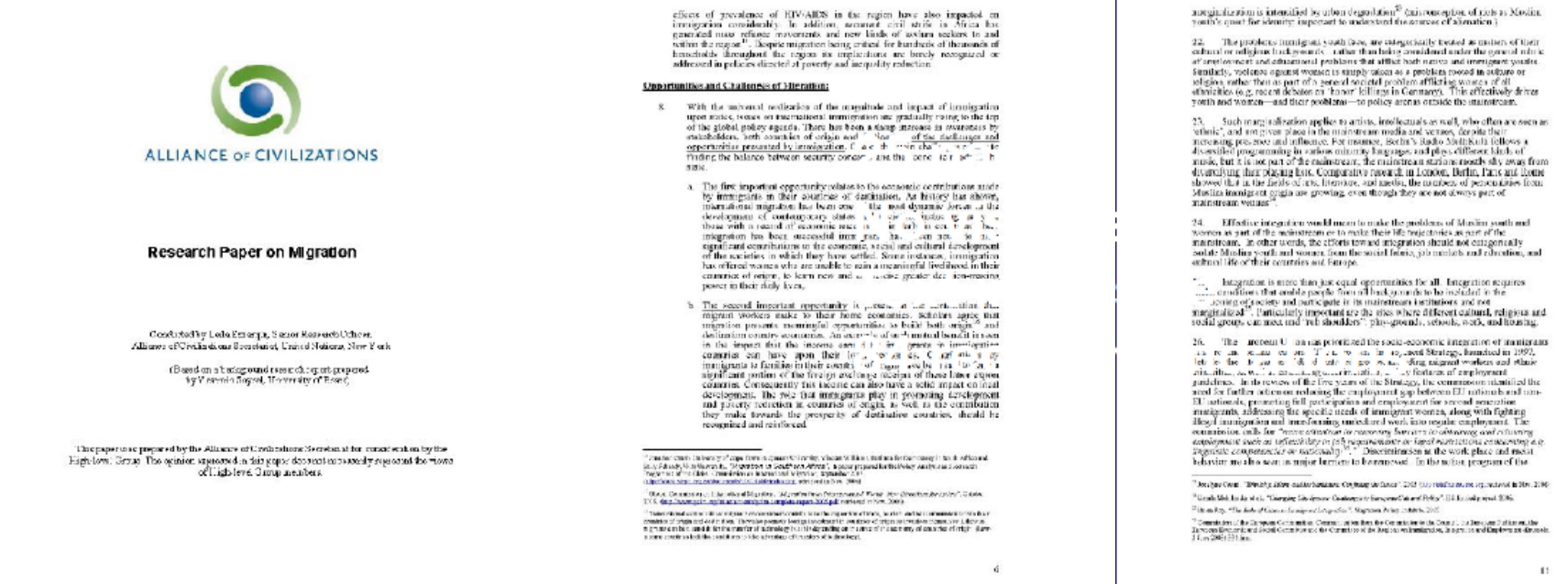
- What is the context
- Who are the stakeholders

- Does the evidence support the framing
- If not how can you shift the framing?

- Consider the information needs of the policymaker
- What is new?
- What is relevant?

- Brokerage or advocacy

- Language,
- Who is going to read it,
- Clarity



ALLIANCE OF CIVILIZATIONS

Research Paper on Migration

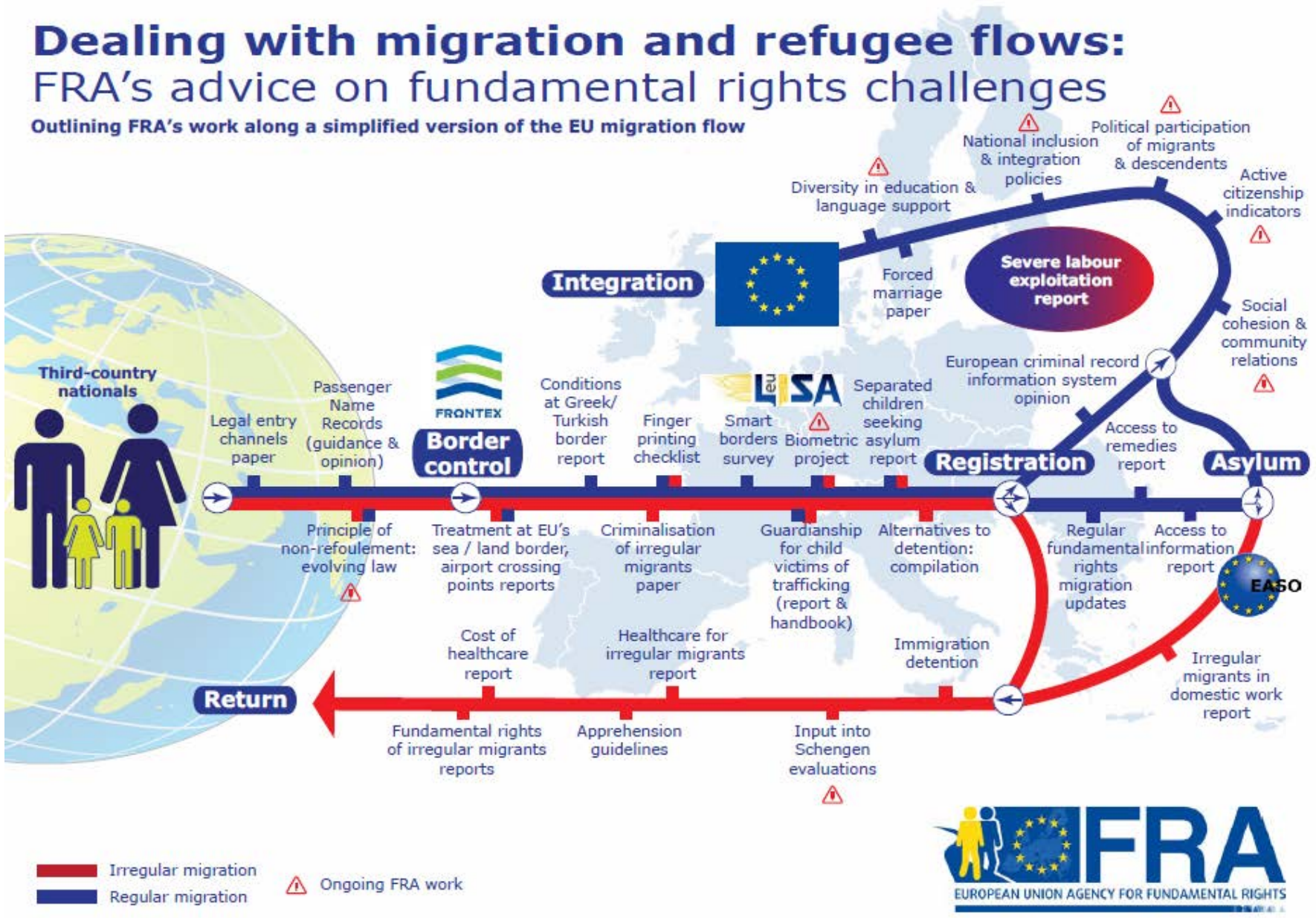
United Nations Alliance of Civilizations | UNAOC
https://www.unaoc.org/repository/thematic_migration.pdf

11.805 words
78.305 characters
824 sentences
228 paragraphs
Longest sentence: 73 words
No graphs, no images

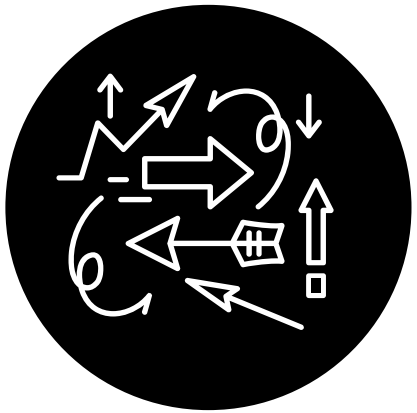
60mn. reading
95mn. speaking
200 word / minute

graduate level
Very difficult

https://wordcounttools.com


Dealing with migration and refugee flows:
FRA's advice on fundamental rights challenges
Outlining FRA's work along a simplified version of the EU migration flow
Third-country nationals
Legal entry channels paper
Passenger Name Records (guidance & opinion)
FRONTEX
Border control
Conditions at Greek/ Turkish border report
Finger printing checklist
Smart borders survey
eu LISA
Biometric project
Separated children seeking asylum report
Registration
Integration
Diversity in education & language support
National inclusion & integration policies
Political participation of migrants & descendents
Active citizenship indicators
Forced marriage paper
Severe labour exploitation report
Social cohesion & community relations
European criminal record information system opinion
Access to remedies report
Asylum
Principle of non-refoulement: evolving law
Treatment at EU's sea / land border, airport crossing points reports
Criminalisation of irregular migrants paper
Guardianship for child victims of trafficking (report & handbook)
Alternatives to detention: compilation
Regular fundamental rights migration updates
Access to information report
EASO
Cost of healthcare report
Healthcare for irregular migrants report
Immigration detention
Irregular migrants in domestic work report
Return
Fundamental rights of irregular migrants reports
Apprehension guidelines
Input into Schengen evaluations
Irregular migration
Regular migration
Ongoing FRA work
FRA
EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS

Lesson 12 Rules don't always work



Some final tips for academics reaching into policy

(Modified from Oliver & Cairney 2019, Cairney and Kwiatkowski 2017, Gluckman 2014 amongst others)

- Understand the context and challenges of policy making
- Understand policy processes;
- Understand the role of cognitive biases on both sides
- Humility and trust
- Do not overload them with information
- Decide if you want to be an issue advocate or honest broker;
- Find the right time to act
- Find pragmatically acceptable solutions
- Build relationships (and ground rules) with policymakers; understand their perspective

International Network for Government Science Advice

www.ingsa.org

International Science Council

- An integral part of the ISC for **science-policy** and **science-diplomacy**
- Over 5000 members from over 100 countries
- Secretariat based in Auckland (SciPoDS)
- Regional chapters: EU, NA, LATAM, Asia, Africa
- Science international relations and diplomacy division (SPIDER), also hosting FMSTAN
- Knowledge centre
- Forum for sharing, coordinating, networking
- Capacity building activities
- Open access learning resources
- Reports and research

THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

SciPoDS

Centre for Science in Policy, Diplomacy and Society

- To be a leader in using robust multidimensional and evidence- informed approaches to address issues of rapid technological change, social cohesion, and the future of democracy in a ‘post-truth’ world.
- There is barely a policy question, at either national or an international level, in which the natural and/or social sciences do not have an important contribution to make. Yet too often evidence can be marginalized, ignored or misused in the policy or political process, This is happening globally in the face of populism, truth decay and the impact of social media. Robustly derived and integrated evidence from the social, natural and data sciences can help to change the nature and quality of discourse.
- The Centre convenes leading thinkers across the full spectrum of disciplines to consider these major interacting and disruptive transitions in a way that can advise public policy and civil society.

www.scipods.org