



Societal Impact of Science

19-21 June, Halifax/Kijipuktuk

**Parallel Session (2016)**

# Engaging Citizens in the Science to Policy Processes



# Societal Impact of Science

19-21 June, Halifax/Kjipuktuk

## Matias Barberis Rami (Chair)

Researcher, Resilience, Socio-Economic Impact, Research Policy  
European Future Innovation System Centre, France

# Engaging citizens in the science to policy process

Societal Impact of Science Conference

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Halifax, Canada – 21 June 2023



# Our speakers today



**Matias Barberis**

Researcher, EFIS Centre

**Vanessa Sung**

Interim Executive Director of  
Evidence for Democracy

# Future Resilience Labs

Engaging citizens in future preparedness and building societal resilience  
by interacting with evidence-based solutions  
to design context sensitive and needs-adapted policies



Why citizen engagement?

# Policymaking & citizens



- Policymakers should understand **how people deal with complexity**, be prepared to understand what could happen if they take one or the other decision.
- Guy Peters: The contemporary crises have emphasised the need to be able to **govern at the street level**. Citizens define the true meaning of the public policy.
- Society needs to recognise, value and enable the opportunities provided by a diversity of (policy/science) response options.

# Citizens



- Societal engagement is an important dimension of innovation activities and practices.
- When we say “we shape the future” it is actually society that should ideate, imagine and build the future they want to live.
- Citizen engagement can contribute to defining the problem by bringing in “**common sense from the real world**” as well as create deeper insights and understanding, to develop better services, improve community cohesion, and support the citizens in developing skills and new prospects to contribute to economic and societal value creation.

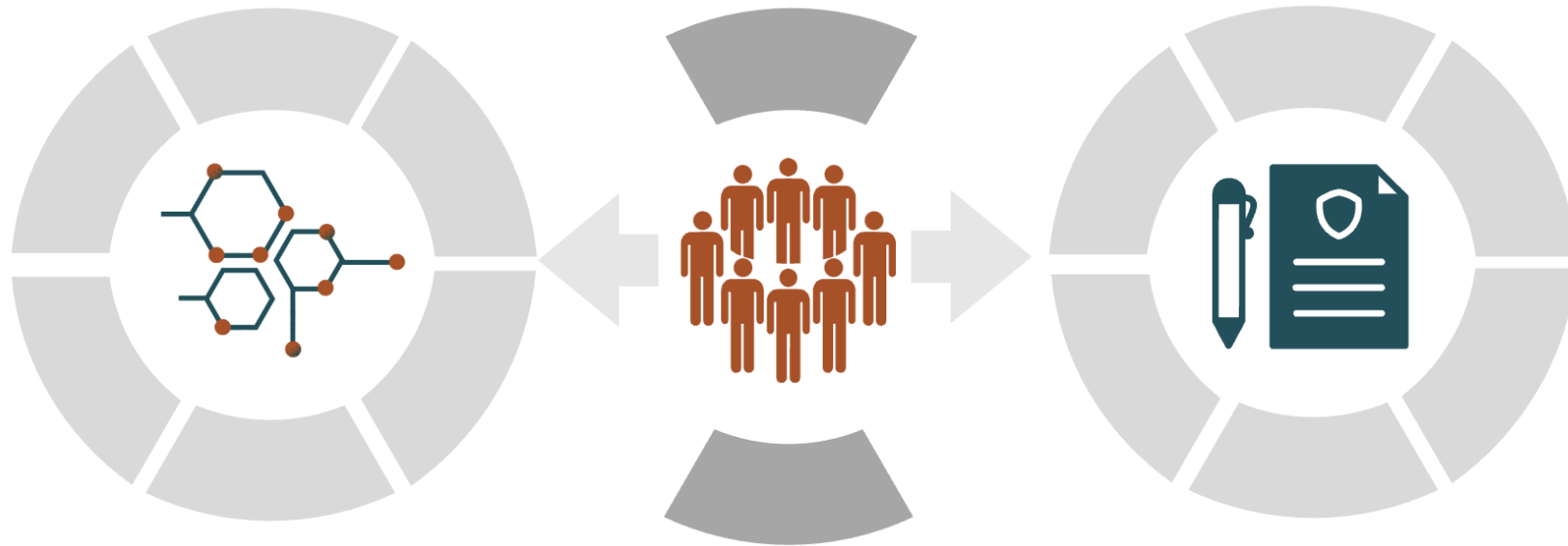
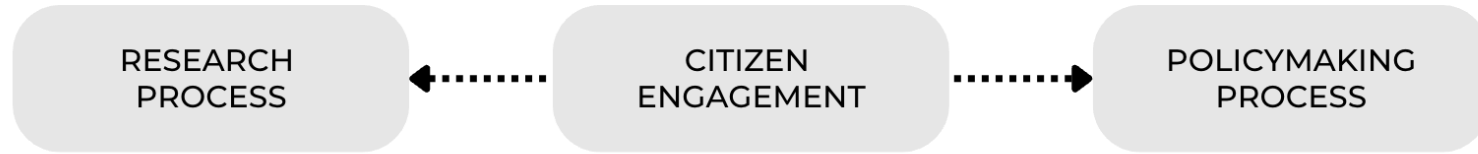


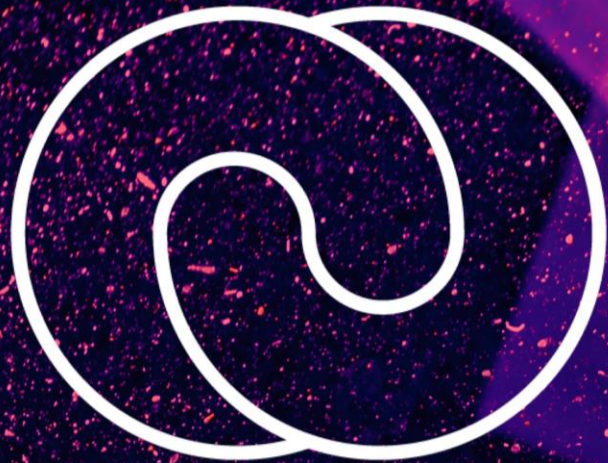
# Science as catalyst



- Experimental research (including co-creation and co-design spaces) is most useful if it results in active learning.
- Applied science should aim to satisfy societal needs of today and tomorrow, should look at create positive and transformational impact.
- One first step is to work on creating the environment in which citizens can understand the impact of their participation. They need to see the light at the end of a tunnel.
- Increasing trust in science and having them as protagonist of the change is key to provide legitimacy to the solutions. When they become active players, we can start to see the change.

# Citizens in the science to policy process





# FutuResilience

Building sustainable futures together

# The FUTURESILIENCE project



The **FUTURESILIENCE** project aims to strengthen European economic and social resilience through an enhanced ability to adapt and quickly respond to future crises.



Map existing policy relevant European R&I findings with high potential to inform policy making for economic and social resilience, and to help address societal challenges.

Define methodologies and guidelines for testing in how far the identified R&I findings can inform policies addressing national, regional and local needs.



Implement 10 'Future Resilience Labs', where multiple stakeholders will discuss and test strategies tailored to their specific context and matching their local needs.

The experimentation will be done in a co-creation environment applying Foresight, participative methodologies and use Agent Based modelling to understand drivers and barriers for implementation.



Develop a Knowledge Base of the successfully tested research findings with high capacity to inform policy actors and a Toolbox of methods for testing policy relevant research findings

# Background



- Crises at local, regional and international level have become increasingly frequent over the last two decades. This has raised the interest in resilience, **testing the capacities of different stakeholders** to cope, adapt and build back better.
- Multiple crises such as the pandemic, disasters, energy or climate change highlighted inequalities in the public, private and civil society sectors and at all institutional levels in the way they are prepared to face unexpected crisis and to deal with uncertainty.
- **Research and Innovation (R&I) can play a key role** by providing a basis for a more flexible and responsive capacity of stakeholders in crisis periods, informing policy development and decision-making, and thus, strengthening resilience and preparedness for future events.

# Our consortium



**EFISCENTRE**



**Fraunhofer**

ISI



**NTNU | Samfunnsforskning**



**Università  
degli Studi  
di Ferrara**



**Mittuniversitetet**

MID SWEDEN UNIVERSITY



**Universidad  
Politécnica  
de Cartagena**

**COPENHAGEN  
INSTITUTE  
FOR FUTURES  
STUDIES**



**FORESIGHT CENTRE**

An independent think tank at the Riigikogu



**Maastricht University**



**Regional Development  
Institute  
of Panteion University**



**1506  
UNIVERSITÀ  
DEGLI STUDI  
DI URBINO  
CARLO BO**



**BULGARIAN  
ASSOCIATION FOR  
PERSONALIZED  
MEDICINE**  
Each patient matters

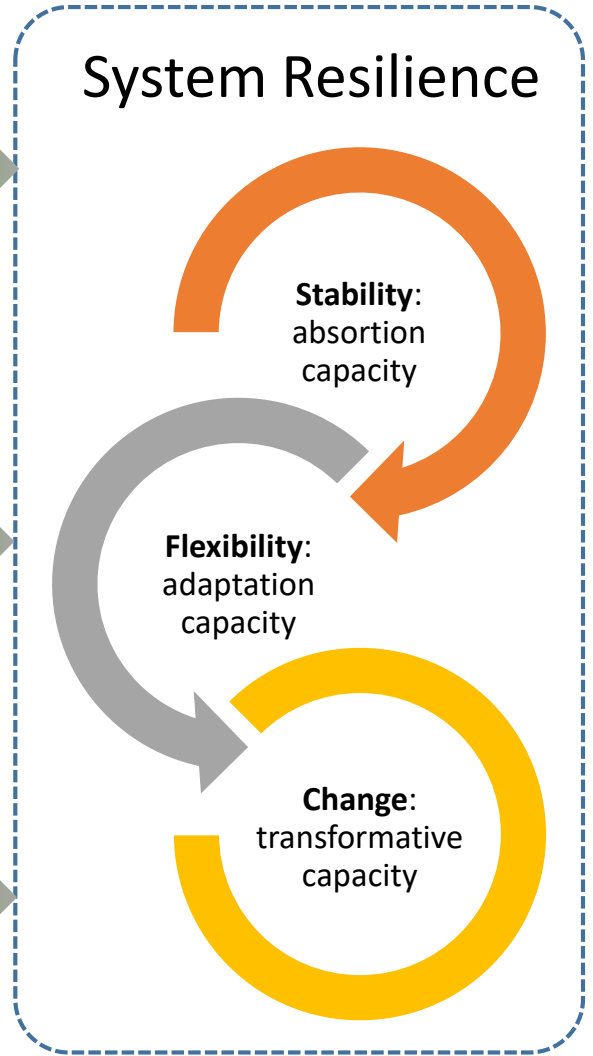
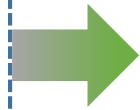
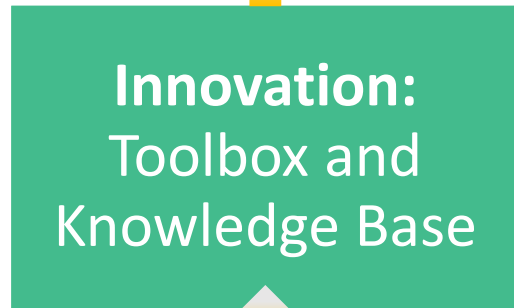
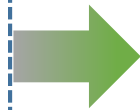
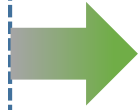


**Ayuntamiento  
de Murcia**



**ΔΗΜΟΣ ΧΙΟΥ**





# Future Resilience labs



- At the project's core is an **experimentation phase** that will include 10 Future Resilience labs working with foresight and participative methodologies to tackle a range of challenges.
- Organised in co-creation mode and guided by a group of experts from the consortium, each Future Resilience lab will **address challenges** they face from internal or external shocks.
  - What would be a major challenge/shock to which your [e.g. city, region, organisation] would be most vulnerable to, given the existing capacities? How is the challenge interrelated with other existing problems?
  - What solutions have been implemented that contributed to mitigate the impact? What can be changed in order to be better prepared for the future? What are the gaps that should be addressed to build resilience and strengthen absorptive and transformative capacities?
- The experimentation will result in the uptake and tailoring of existing solutions and design of novel ones to address the challenges of the pilot case, looking to increase future preparedness and resilience.





# Future Resilience Labs

1

## OPEN CALL FOR LABS

We will launch a call for additional 7 pilot cases that will join the FUTURESILIENCE experience. Up to €60k in funds per lab!

2

## GUIDING EXPERTS

Thematic and Foresight experts will guide the co-creation labs to find science-based solutions

3

## MUTUAL LEARNING

Exchange of experiences and solutions to build resilience in different areas and prepare for different crises.

4

## VALIDATION PHASE

Cross-lab validation of results in the Simulation Lab at the Mid-Sweden University, in 2025



## MURCIA Lab

The lab will work as co-creation space, supporting citizen science and crowd-mapping of climate change impacts, tailoring policy solutions aimed at improving urban performance. The labs will strengthen the governance of all urban actor, to be able to develop preparedness models to mitigate the impacts of some challenges such as reduce heat island, reduce flash rainfalls and flooding as well as increase the compactness of the city.



## CHIOS Lab

The lab will focus on planning and developing a strategy to strengthen the ability to respond multidimensional and overlapping crises. This will be accomplished by considering multiple areas for action in areas such as social protection, community engagements, health provision, schooling, financial considerations and budgeting, thus strengthening the resilience of the administrations and the society.



## BAPEMED Lab

The lab aims to develop a more resilient healthcare system, working with multiple stakeholders across the country. The pilot case will build on three key trends: demographic developments, the growing burden of non-communicable diseases, and the expanding role of technology. The focus will be on the shift happening within health systems towards increased prevention and more personalised health, which requires digital health literacy.

# MURCIA

- **Community mapping.** Direct involvement of citizens in the assessment of the environment in which they live (mapping of the urban environment with respect to the pilot's challenges).
- **Hackathons.** Aimed at identifying solutions related to the pilot's themes and directly complement the foresight activities. Organised for different profiles: students (university and secondary schools), professionals, climate activists, and citizens, who in the spirit of the event will have to form teams to imagine possible futures and propose specific solutions.
- **Workshops – creating recommendations.** Organise a series of “citizen assemblies” in which to draw up a series of proposals to be addressed to political decision-makers. Imagine how the city can prepare itself in improving its ability to manage the impacts of climate change.
- **Policy workshops.** Workshops dedicated to harmonising the proposals made within the Murcia’s Lab with local policies. Harmonise the suggestions and proposals born from co-creation activities and make them active policies.



# Open call for labs

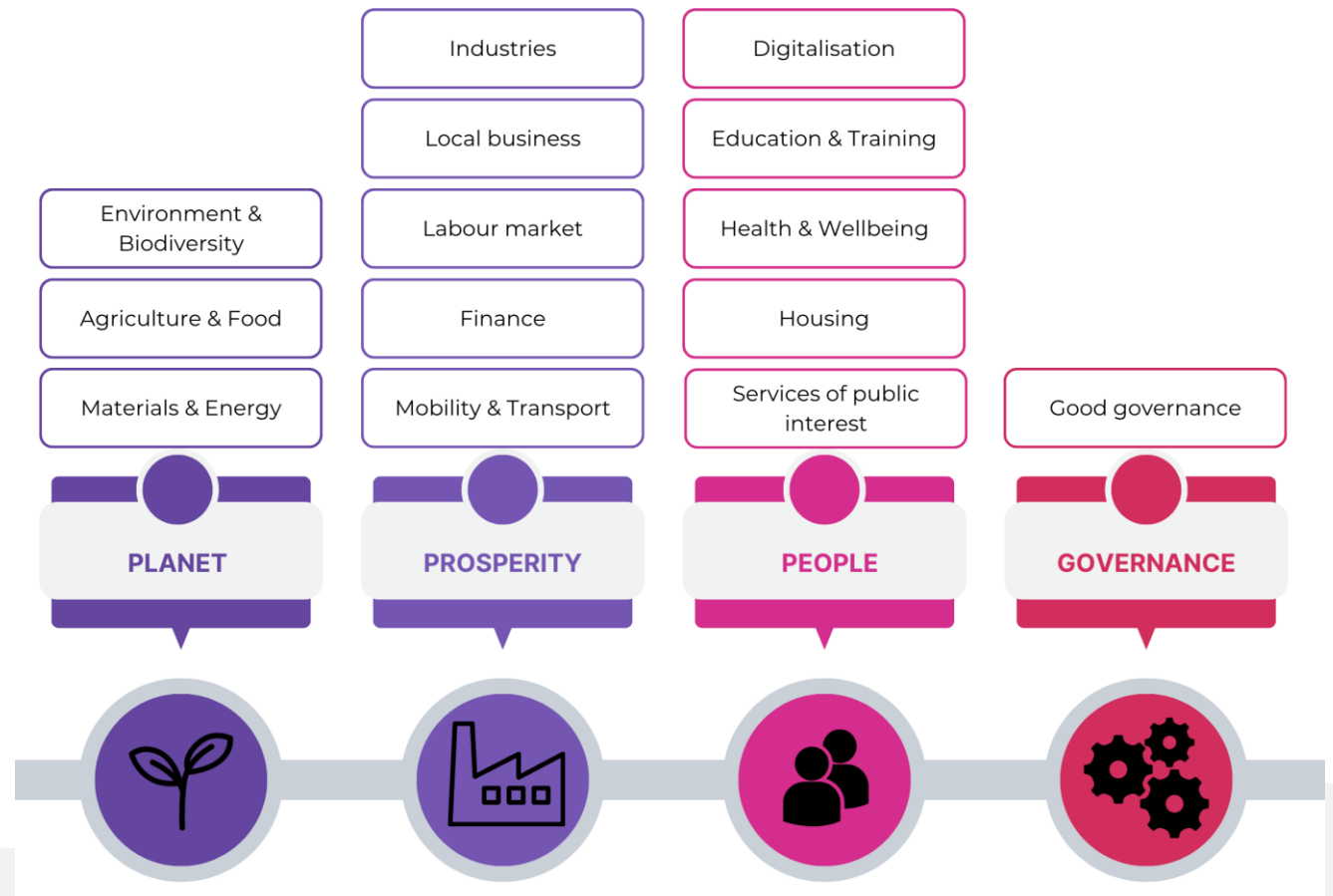
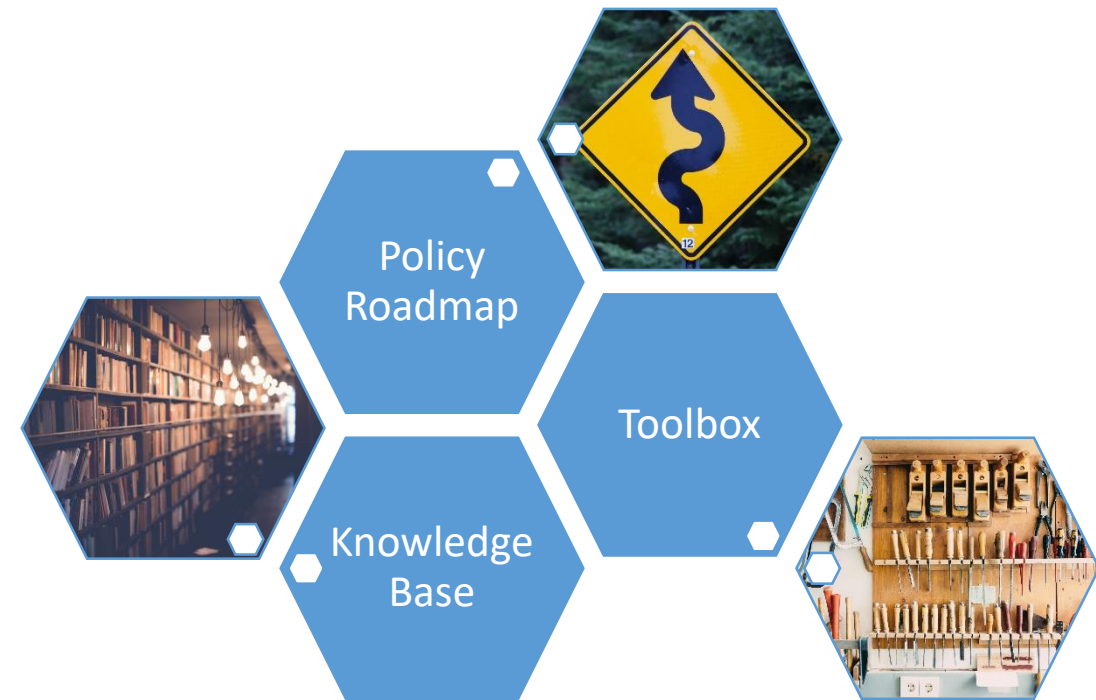


- The project launched an open call to support **additional 7 labs**
- Proposals may **address concrete challenges** within some areas such as urban development, agriculture, mobility, health, welfare system, industries, among others. We welcome applications that work with cross-cutting areas and interrelated uncertainties.
- Who can apply? **Applicants must be legal entities** (e.g. regional or local authorities; industries or business groups, civil society associations, research infrastructures and public research centres; cross-border or interregional partnerships)
- Expected pilot duration: from 9 to 12 months (starting 2024)
- Financial support available: **up to €60k funding per lab**
- Tailored support from experts on resilience, foresight and cross-cutting topics
- Deadline for applications: 12th October 2023 15:00 CET

# Expected outcomes



Innovative solutions addressing specific societal challenges can work if different stakeholders are **willing to adopt, tailor and implement these solutions in a sustainable manner.**





# Societal Impact of Science

19-21 June, Halifax/Kjipuktuk

Vanessa Sung

Interim Executive Director, Evidence for Democracy, Canada



# Evidence for Democracy

*Connecting and empowering citizens with evidence*



evidencefordemocracy.ca | [info@evidencefordemocracy.ca](mailto:info@evidencefordemocracy.ca) |

@E4Dca

@sung\_vanessa

Evidence for Democracy (E4D) is the leading fact-driven, non-partisan, not-for-profit organization promoting the **transparent use of evidence in government decision-making in Canada.**



# The relationship between science and democracy



- Science for the benefit of society
  - Science enables effective policy-making
  - Science serves as a check against those in power



# The call for scientific evidence in policy driven by policy actors

December 16, 2021



Dear Minister Duclos:

Thank you for agreeing to serve Canadians as Minister of Health.

From the beginning of this pandemic, Canadians have faced a once-in-a-century challenge. And through it all, from coast to coast to coast, people have met the moment. When it mattered most, Canadians adapted, helped one another, and stayed true to our values of compassion, courage and determination. That is what has defined our path through this pandemic so far. And that is what will pave our way forward.

During a difficult time, Canadians made a democratic choice. They entrusted us to finish the fight against COVID-19 and support the recovery of a strong middle class. At the same time, they also gave us clear direction: to take bold, concrete action to build a healthier, more resilient future. That is what Canadians have asked us to do and it is exactly what our Government is ready to deliver. We will work to build that brighter future through continued collaboration, engagement, and the use of science and evidence-based decision-making. With an unwavering focus on delivering results, we

Edmonton

## Federal health minister pens letter to Alberta, asks for science behind plan to lift COVID-19 rules



Patty Hajdu says she wants to better understand rationale, science leading to decision



[Janet French](#) · CBC News · Posted: Aug 05, 2021 10:50 AM MT | Last Updated: August 5, 2021



Can the public evaluate if science and evidence are informing policy decisions?

# Connecting the public with evidence



# Transparency framework asks: can the evidence behind policy decisions be found by the public?

- Adapted to the Canadian context
- Can be used by anyone, does not require subject matter expertise
- Allows for comparison between different policy areas
- Applied to 100 randomly selected federal and 133 provincial (ON, BC, and SK) policy announcements

<b>Diagnosis:</b> What do policymakers know about the issue (e.g. causes, effects and scale)?	<i>Can you see what evidence has been used and the role it has played?</i>
<b>Proposal:</b> What is the government's chosen intervention and why was it chosen?	<i>Can you see what evidence has been used and the role it has played?</i>
<b>Implementation:</b> How will the chosen intervention be rolled out and why was this method chosen?	<i>Can you see what evidence has been used and the role it has played?</i>
<b>Testing and evaluation:</b> "How and when will we know if the policy has worked?"	<i>Can you see what evidence will be provided and when it will be provided?</i>



0



1 = The evidence (i.e. rationale) is provided or explained



2 = I can examine the evidence myself via a link or



citation  
3 = The evidence is critically assessed (conflicting evidence and/or uncertainties are considered)



0



1 = The evidence (i.e. rationale) is provided or explained



2 = I can examine the evidence

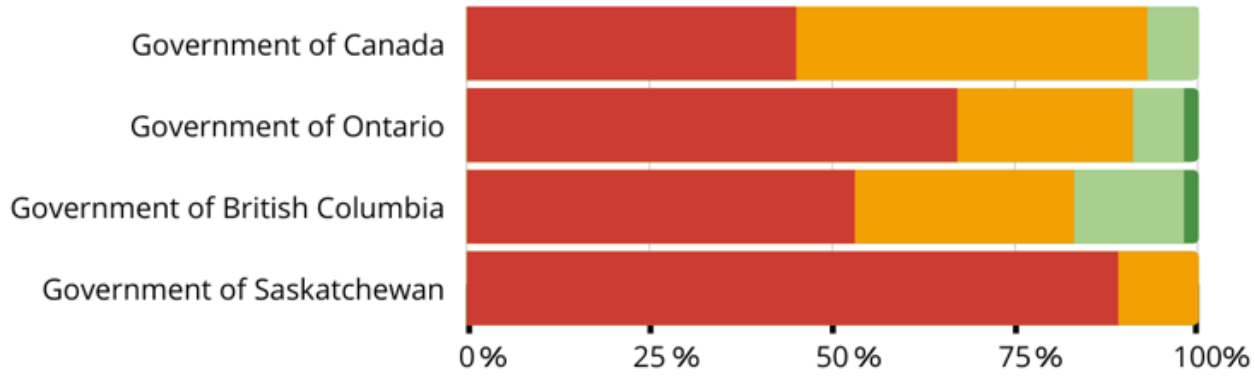


3 = The evidence is critically assessed (conflicting evidence and/or uncertainties are considered)

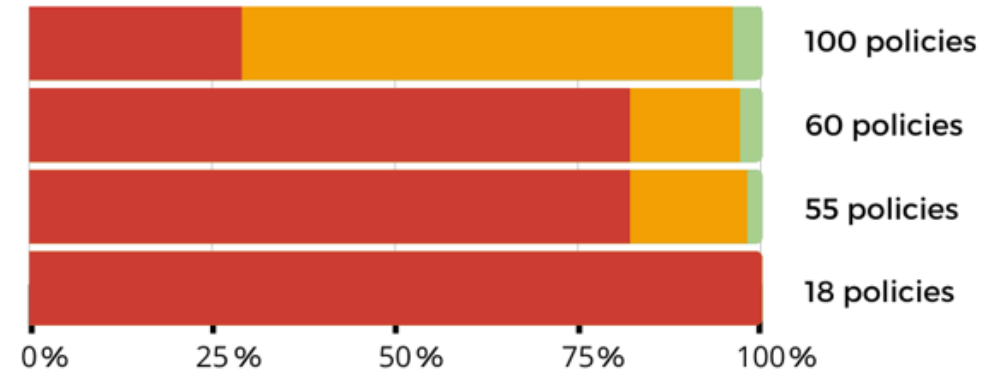
### Health Canada

	Diagnosis	Proposal	Implementation	Testing & Evaluation
Health Canada announces funding for a tobacco cessation project to mark World No Tobacco Day 2021	1	1	0	0
Health Canada announces new measures for use of neonicotinoid pesticide imidacloprid	1	1	0	0
Government of Canada announces \$20 million to help communities respond to increasing opioid-related overdoses	2	1	1	0
Health Canada issues label change authorization for Pfizer-BioNTech COVID-19 vaccine	0	1	0	0
Government of Canada Invests More Than \$3 Million to Virtual Health Care Services in Yukon	0	0	0	1
Proposed Guidelines for Canadian Drinking Water Quality for 4-Chloro-2- methylphenoxyacetic Acid (MCPA)	1	1	0	0
Canada Gazette, Part I, Volume 155, Number 26: Regulations Amending the Food and Drug Regulations (Supplemented Foods)	1	1	0	0
Public consultation on the Canadian Biosafety Standard (CBS), third edition	0	0	0	0
Consultation: Proposed Amendments to the Carriages and Strollers Regulations	0	0	0	0
Consultation on Difenconazole, Proposed Maximum Residue Limit PMRL2021-01	0	0	0	0

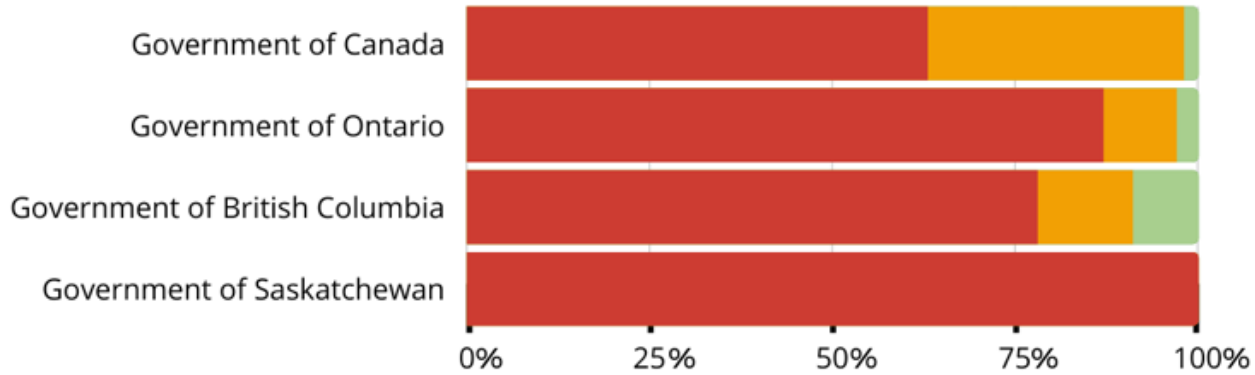
## Diagnosis



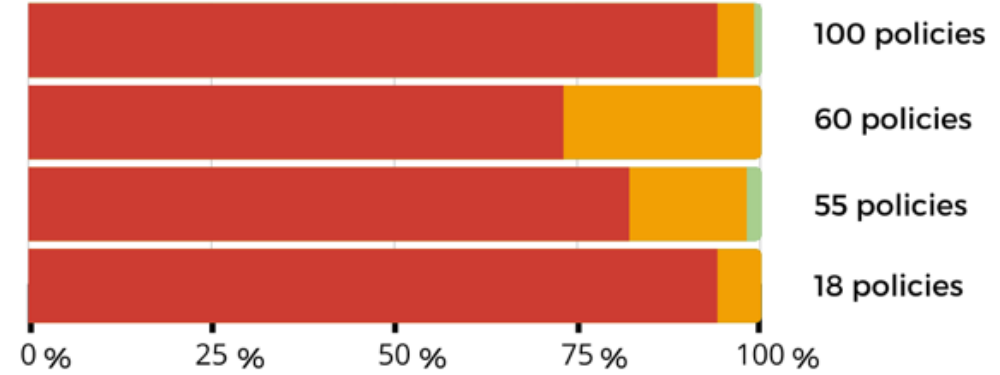
## Proposal



## Implementation



## Testing and Evaluation



Transparency score:







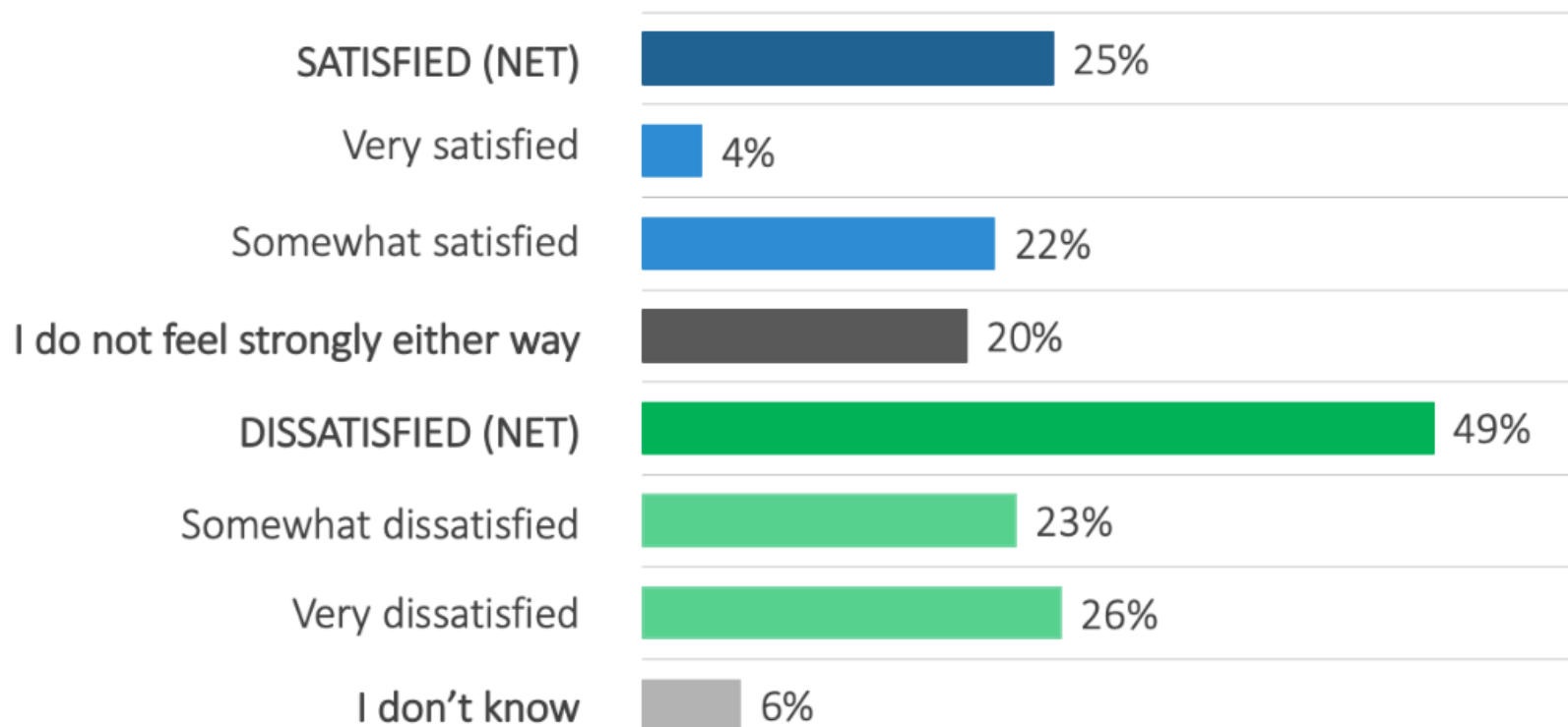
# Attitudes towards government use of evidence among the Canadian public



What do Canadians think?

## Nearly half (49%) of Canadians are dissatisfied with government transparency on factors that influence policy decisions

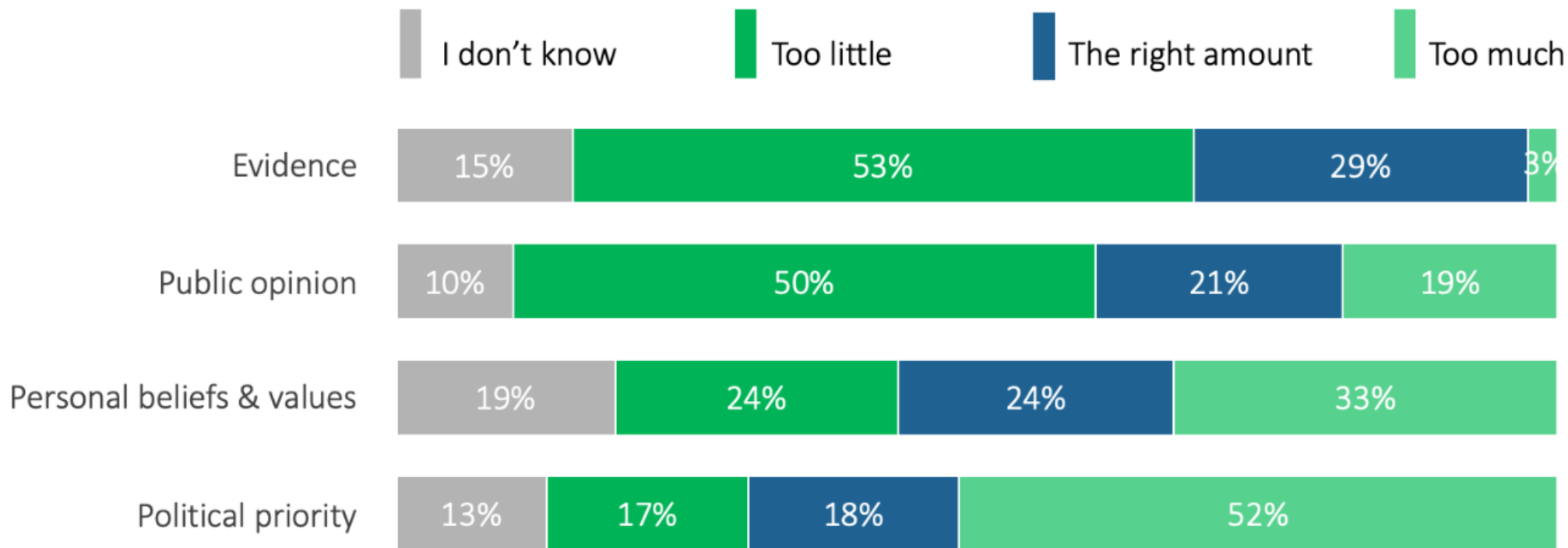
**Q1** Governments have to consider many types and sources of information when making decisions. How satisfied are you with how transparent governments are about the factors influencing their decisions?





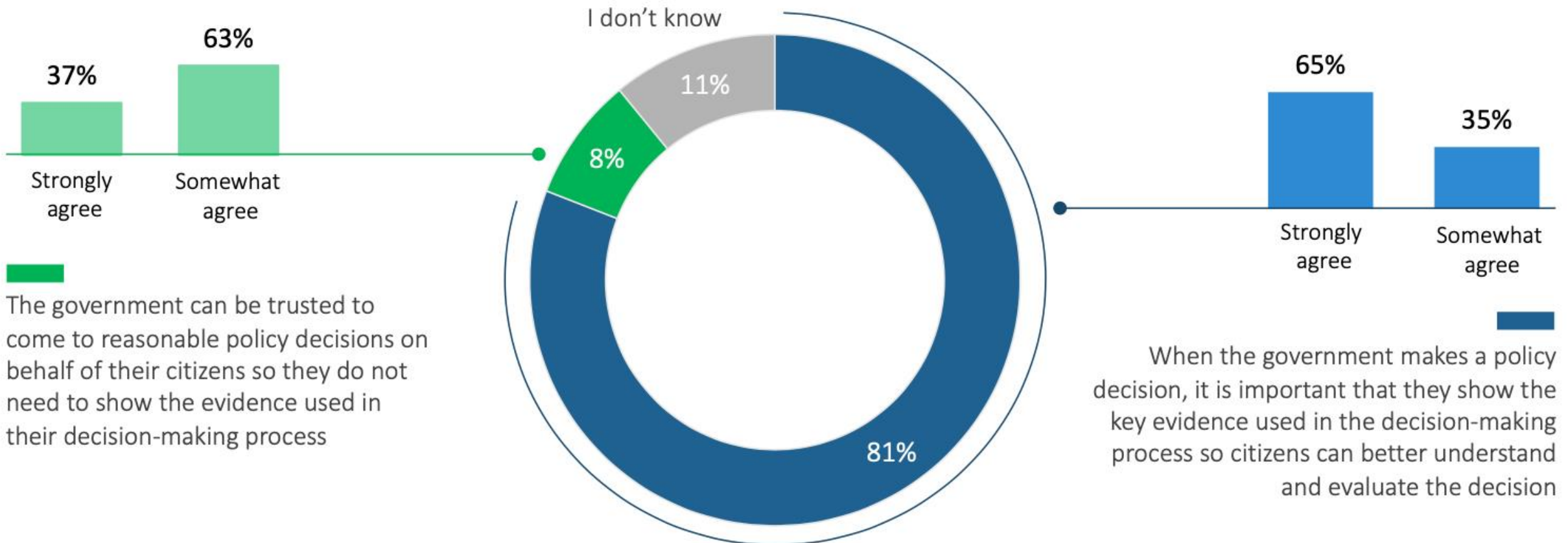
# Over half of Canadians feel governments pay too little attention to evidence and public opinion and too much on political priority when making decisions

**Q2** When governments are making decisions, do you think they pay too much, too little, or the right amount of attention to each of the following?



# Eight-in-ten (81%) Canadians want to see the key evidence used in government decision-making

Q3 Which of the following views is closest to your own?



The government can be trusted to come to reasonable policy decisions on behalf of their citizens so they do not need to show the evidence used in their decision-making process

When the government makes a policy decision, it is important that they show the key evidence used in the decision-making process so citizens can better understand and evaluate the decision



# Empowering the public with evidence

**ED Evidence for Democracy** Francais

## Evidence Matters

Empowering Canadians with the Skills to Navigate Evidence in Everyday Life

Evidence Matters aims to place evidence at the heart of navigating everyday life. Our guides, events, and resources seek to equip you with the knowledge and skills to assess evidence and hold individuals and organizations accountable for the claims they make. Help us

**A GUIDE TO Asking for Evidence**

**A GUIDE TO Understanding Evidence**

**COMPANION GUIDE Understanding Scientific Studies**

**ED Evidence for Democracy**

The screenshot shows the Evidence Matters website. At the top left is the logo for Evidence for Democracy (ED). The main header features the title "Evidence Matters" and a subtitle "Empowering Canadians with the Skills to Navigate Evidence in Everyday Life". Below this is a paragraph of text describing the organization's mission. Three guide covers are displayed in the foreground: "A GUIDE TO Asking for Evidence", "A GUIDE TO Understanding Evidence", and "COMPANION GUIDE Understanding Scientific Studies". Each cover features the ED logo and a central image related to its theme. The background of the website is a light beige color with a pattern of small black dots. On the right side, there is a vertical social media sharing bar with icons for Twitter, Facebook, and LinkedIn.

# Evidence Matters, now more than ever

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- Accelerated spread of mis- and disinformation hinders decision-making
  - Day-to-day decisions
  - Scrutinize the relationship between evidence and government decisions
  - Informed participation in democracy



# A GUIDE TO Understanding Evidence



1. Why does evidence matter?
2. What exactly is evidence?
3. How do you think critically about evidence?



# How do you think critically about evidence?

**Credibility of the evidence & source**  
**Consensus around the evidence**

**Relevance of the evidence**

**Objectivity of the source**



# A GUIDE TO Asking for Evidence



1. How can I find evidence on my own?
2. How do I ask for evidence?
3. What do I ask?



# What do I ask?

*To Whom it May Concern,*

*I'm contacting you today in regards to the [claim/decision] I [saw/read/heard] made by [you/ your organization/your government] that [insert claim/decision].*

*I'd like to know more about the information behind this [claim/decision]. Can you please provide me with the supporting evidence?*

*Looking forward to hearing from you,*

*[your name, organization]*



# COMPANION GUIDE

# Understanding Scientific Studies



1. The Scientific Method
2. Anatomy of a Scientific Paper
3. Evaluating the Quality of a Scientific Publication

# Engaging Canadians to understand science and evidence

- Developed three guides to help individuals better navigate evidence in their lives
- Developed a dedicated bilingual landing page was built to aid promotion ([EvidenceMattersToMe.ca](https://EvidenceMattersToMe.ca))
- Hosted four online sessions, with over 650 attendees
- Garnered 413K impressions on Twitter throughout March, 11K profile visits, and almost 100 mentions
- Produced a series of three blog posts to discuss themes in the Evidence Matters campaign
- Partnered with the Ottawa Public Library, who created and shared recommended book lists related to Evidence Matters

**Evidence for Democracy** @E4Dca · Mar 16

The Ottawa Public Library has resources to help you navigate evidence in everyday life! Thank you @opl\_bpo for curating this wonderful list of books on misinformation for #EvidenceMatters.

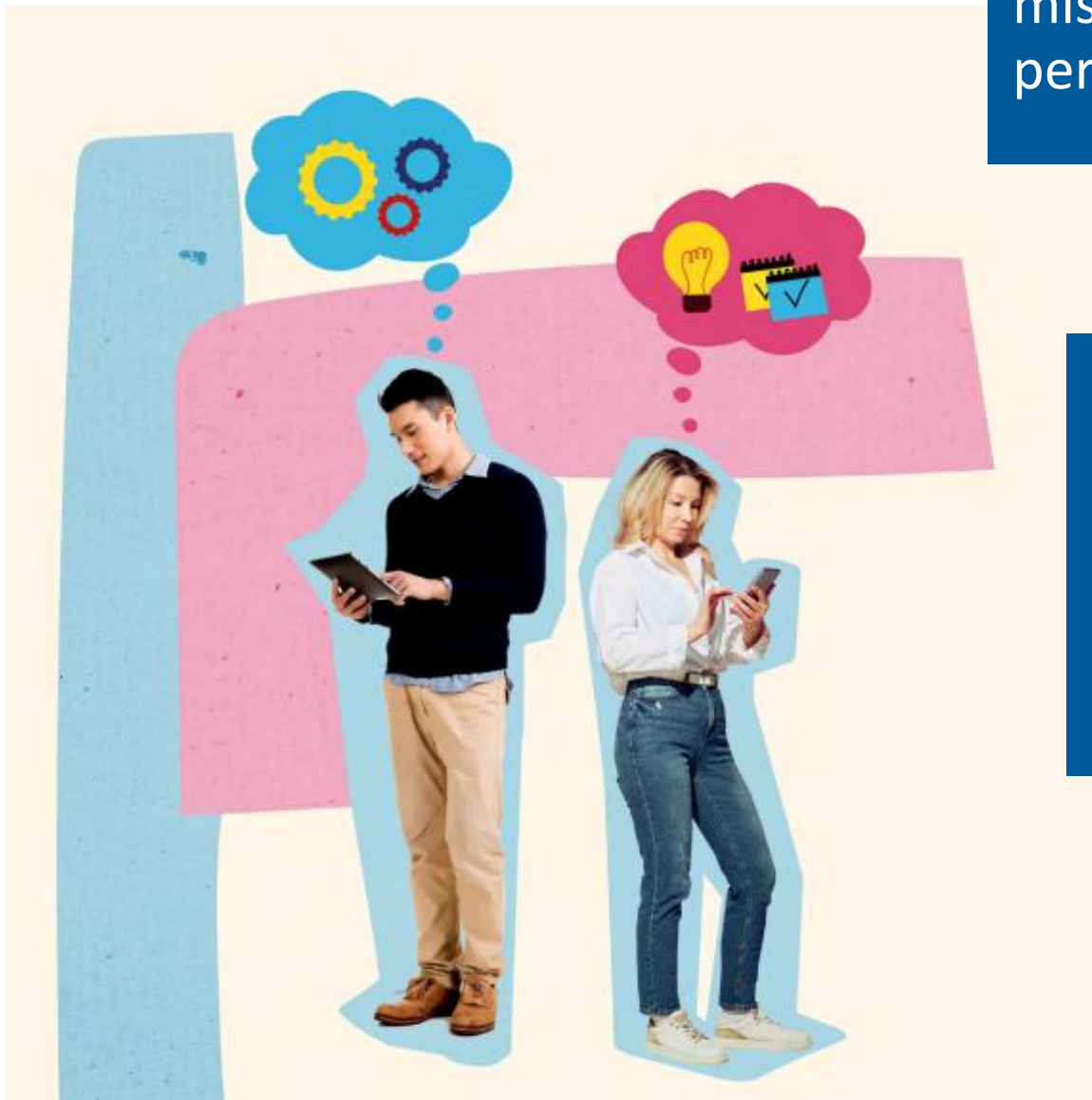
Find them at your local library:



[ottawa.bibliocommons.com](https://ottawa.bibliocommons.com)

Evidence Matters - Ottawa Public Library

Evidence Matters by Chris\_biblio - a staff-created list: "Help us strengthen our democracy through good evidence, one conversation..."



“What do you do when the misinformation comes from a religious person or organization?”

“Do you have suggestions on who/what government/media organization(s) to reach out to when there is obvious misinformation in commercials?”

“Governments all too often ignore the science consensus on a controversial topic like climate change. How do we respond when certain parties/public figures actually”

“We need more proactive public dialogue/education regarding science literacy, understanding statistics, and being able to recognize logical fallacies.”

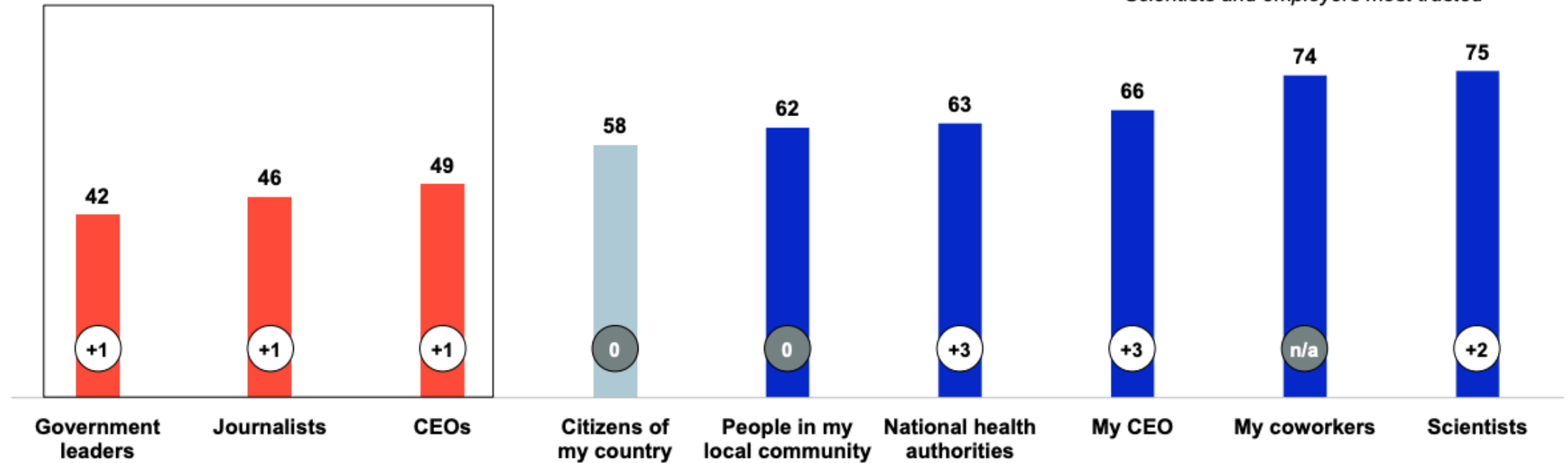
“The honest admission of errors in the transmission of sometimes contradictory evidence around COVID-19, for instances, and the lessons learned, really inspire trust in the effectiveness of the scientific process.”

# Impact of Science on Democracy

Percent trust



*Scientists and employers most trusted*



# Impact of Science on Democracy

**Virtually every challenge society faces today has a scientific dimension.**

**Trust in science can be leveraged to improve trust in public institutions and bolster democracy.**

## Challenges | Opportunities

- There is need to improve transparency around the science and evidence used in government decision-making in Canada
- There is public demand for the use of science and evidence in policy decisions
- The public needs to be empowered to understand and engage with scientific evidence



Thank you!

## Recommendation

Engaging Citizens in the Science  
to Policy Processes

“ ”