



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire



Canada

Nuclear – Requires a Unique Regulatory Framework!



CANADA 150

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Positive Energy Workshop, University of Ottawa

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Canadian Nuclear Safety Commission



Regulates the use of nuclear energy and materials to protect **health, safety, security** and the **environment**



Implements Canada's **international commitments** on the peaceful use of nuclear energy



Disseminates **objective** scientific, technical and regulatory **information** to the public

NSCA – modern, clear legislation

Independent Commission



Quasi-judicial administrative tribunal

Agent of the Crown (duty to consult)

Reports to Parliament through Minister of Natural Resources

Commission members are independent and part-time

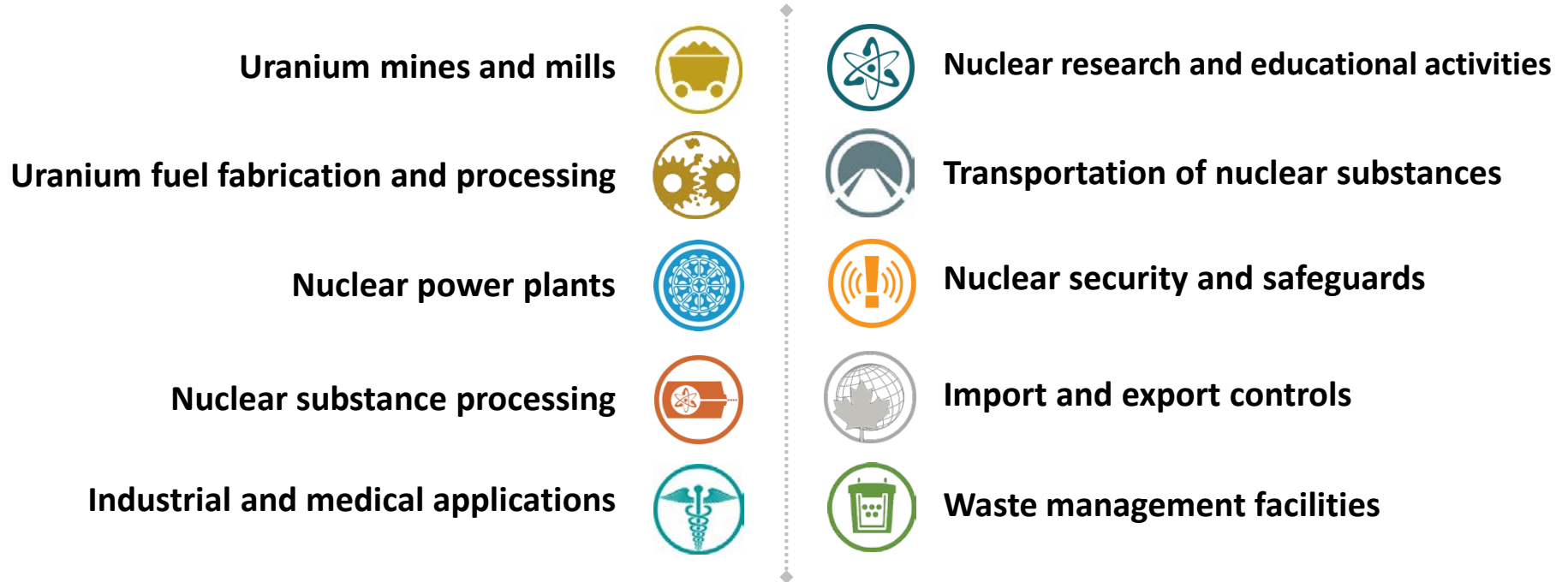
Commission hearings are public and webcast

Staff presentations in public

Decisions are reviewable by Federal Court

Transparent, science-based decision making

CNSC Regulates All Nuclear Facilities and Activities in Canada



From cradle to grave

Nuclear Regulation Is a Global Affair

Oversight

- UN: International Atomic Energy Agency
- Organisation for Economic Co-operation and Development: Nuclear Energy Agency

Sharing

- Senior regulators (CANDU)
- International Nuclear Regulators Association
- World Nuclear Association
- Operating experience

Obligations/Treaties

- Convention on Nuclear Safety (power reactors)
- Joint Convention (nuclear waste management)
- Nuclear Non-proliferation Treaty – Administrative Arrangement

Peer reviews

- Integrated Regulatory Review Service, International Physical Protection Advisory Service, Emergency Preparedness Review service, Operational Safety Assessment Review Team
- Also industry peer reviews, e.g., World Association of Nuclear Operators

A Unique Regulatory Framework

Canadian Regulatory Framework – Based on International Guidelines

1. Clear legislation and regulations

- clear mandate

2. Safety focus

- socio-economic concerns are not a consideration for licensing

3. Independent

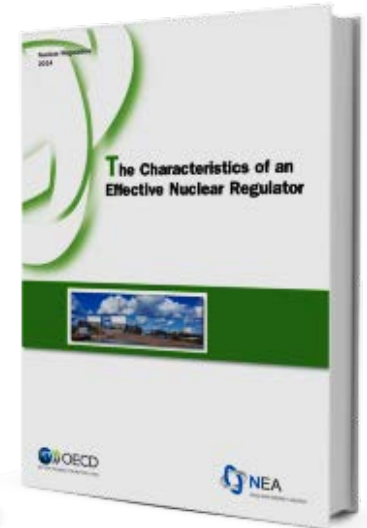
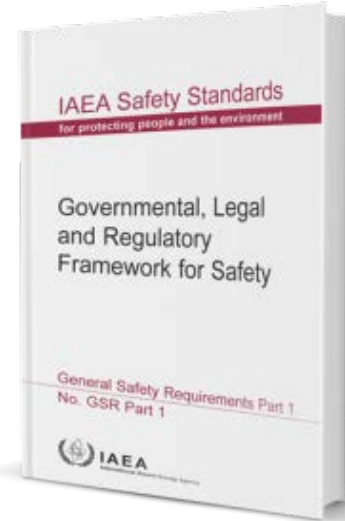
- from industry and government

4. Openness and transparency

- clear decision-making process

5. Technical competence

- flexible and highly skilled workforce



Recognized as best practice

Canadian Regulatory Framework – Based on International Guidelines

6. Modern, flexible regulatory framework

- adaptable to an evolving industry and changing regulatory expectations

7. Science-based decision making

- risk-informed, technically sound and backed by credible scientific evidence

8. Dissemination of information

- make the CNSC a key source of credible information

9. Well-managed and well-resourced organization

- with a healthy safety culture

10. Continuous improvement

- culture of peer review, research and publications, new technology
- lessons learned – Fukushima, Lac-Mégantic, Mount Polley

Recognized as best practice

Nuclear Regulation Has Its Unique Challenges

- Fear of radiation; nuclear proliferation
- Complex technology
- Regulator is often accused of pro-industry / pro-nuclear bias
- Alternatives to nuclear power comprise a policy issue
- Misinformation about health and environmental impacts



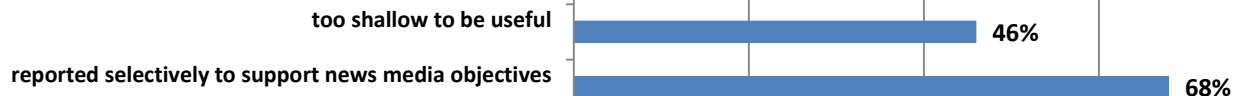
An accident anywhere is an accident everywhere

Canadians Say

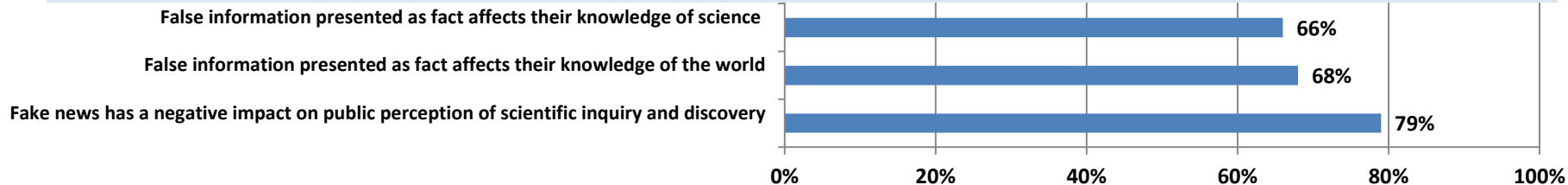
Question: To what extent do you agree or disagree that scientific findings...



Question: Thinking about media coverage you have seen about scientific issues, to what extent do you agree that it is:



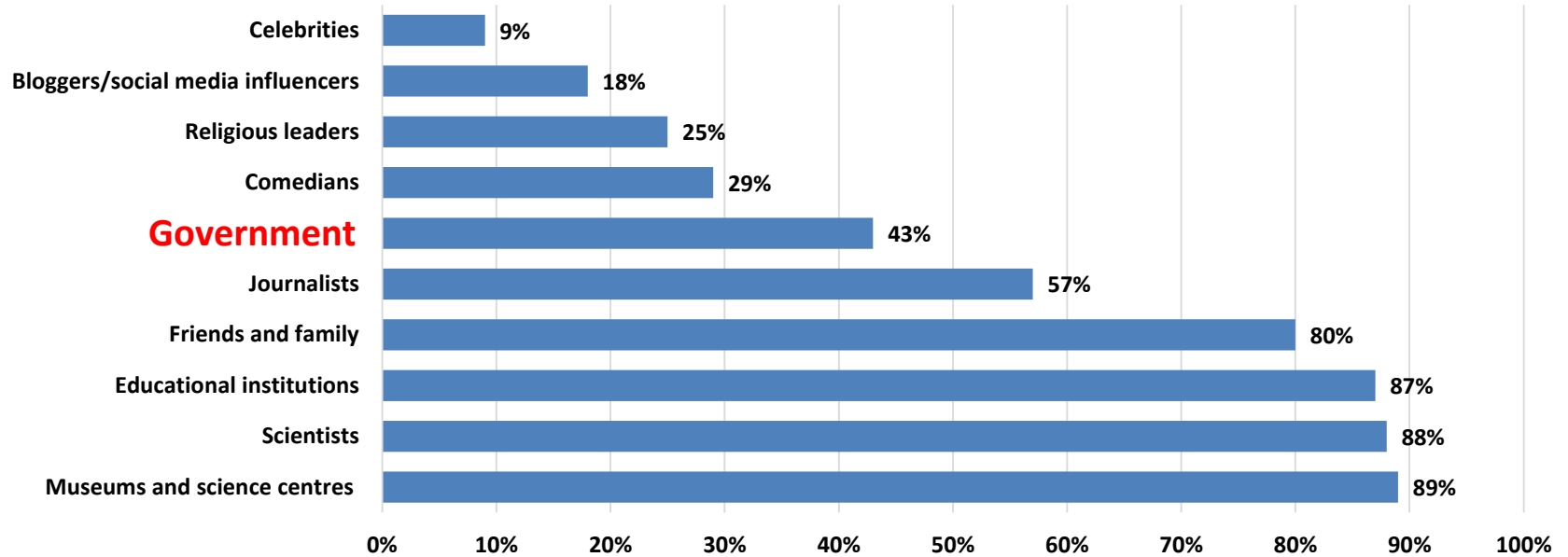
Question: To what extent are you concerned about each of the following:



Source: Léger. LegerWeb online survey of 1,514 Canadians, August 15–16, 2017

Scary view of science

Who Canadians Trust to Provide Reliable Scientific Information



Source: Léger. LégerWeb online survey of 1,514 Canadians, August 15-16, 2017

How best to engage in this climate?

Need to Engage

Why

- It's in our mandate
- Be objective and trusted source of information
- Describe the CNSC regulatory process – safety first!
- Build trust that nuclear sector is safely regulated

How

- Commission proceedings
 - open to the public and webcast
 - interventions from the public; can ask questions
 - participant funding
 - annual regulatory oversight reports
- Information products
 - fact sheets, FAQs, “mythbusters”
- Outreach activities
 - stakeholder working groups
 - face-to-face: open houses, CNSC 101; conferences
 - meetings with Indigenous groups
- Website and social media platforms

We will never compromise safety!

Need to Engage (2)

Where

- In host and potential host communities
 - Commission proceedings in host communities
 - Indigenous communities impacted by or interested in projects
 - Nuclear Waste Management Organization Adaptive Phased Management process
- Across Canada as requested



Who

- Federal, provincial and territorial governments
- Industry
- Indigenous groups
- Canadian public
- International regulator community



Need political support

Question: Given international obligations and responsibilities, and the need for independence, what is the right governance model for nuclear regulation?

Issues that all regulators face

- How to avoid the “Ottawa Syndrome” of system fixes
 - too much effort on up-front planning and a lack of attention to execution
 - one-size-fits-all may not always be best approach – e.g., Phoenix
- Who has legitimacy to participate, and what weight should their voices have?
- Who decides on a project?

Recognize that competent and specialized regulators already exist

- Lifecycle regulators have particular expertise and experience with their projects
 - Technical capabilities; independence; science-based decisions
 - e.g., CNSC has conducted more than 70 EAs since 2000 – decisions upheld by the courts
- Keep politics out of decisions: a quick “yes” or “no” is acceptable; “maybe” is not

Nuclear regulation requires a unique framework

Connect With Us

Thank You! Questions?

