



# SCIENCE AND CEAA

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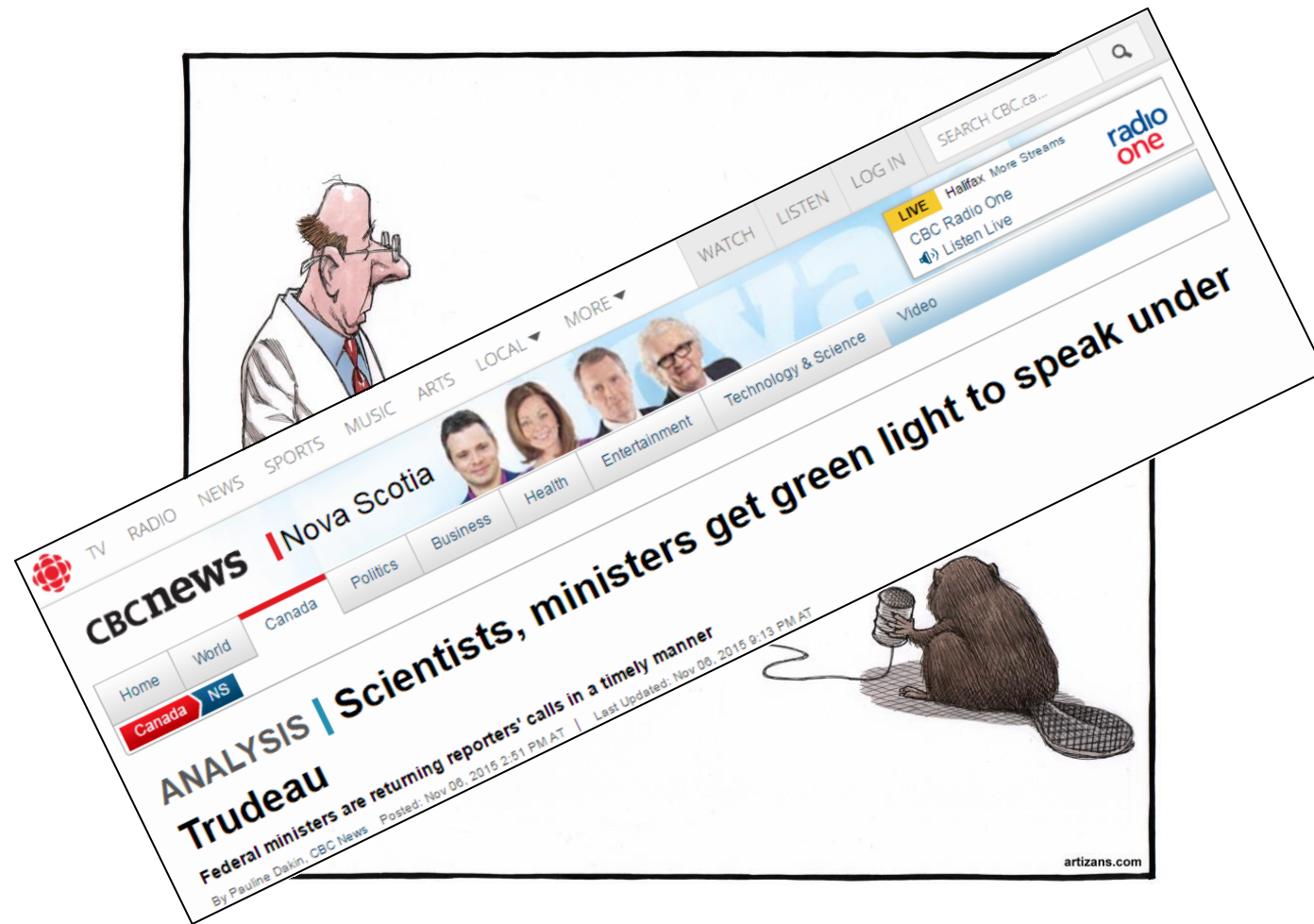
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of federal EA processes, November 7, 2016

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# 2015: A renewed commitment for the role of science in decision making

- ❖ The Mandate Letter of the Minister of Environment and Climate Change to review Canada's environmental assessment processes

  - ensure decisions are based on **science, facts and evidence**

- ❖ Stated goal of Federal EA review

  - goal is to develop new, fair processes that are robust, **incorporate scientific evidence**, protect our environment, respect the rights of Indigenous peoples, and support economic growth

- ❖ TOR of EA Expert Review Panel

  - How to ensure decisions are based on **science, facts and evidence** and serve the public's interest?

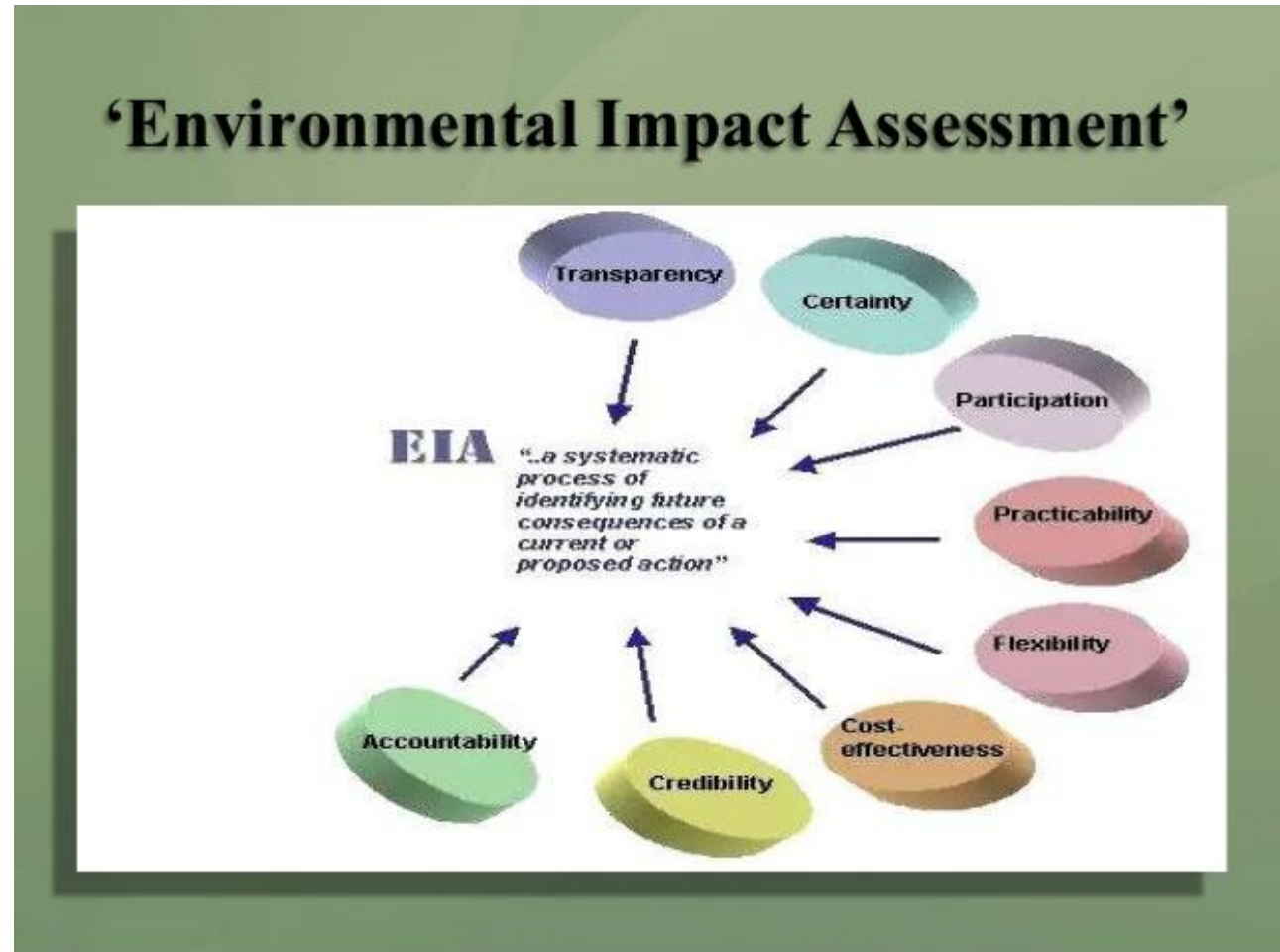
  - How environmental assessment processes are conducted under the Canadian Environmental Assessment Act, 2012, including practices and procedures, such as Indigenous engagement and consultation, public participation, **the role of science** and Indigenous knowledge, cumulative effects assessment and harmonization and coordination with other orders of government;

# What is needed to better ensure EA decisions have a strong scientific basis?

Legislation

Policy &  
Guidance

Practice  
(process and  
culture)



# CEAA 2012 and Science

- ❖ “Scien (ce) (tific)” not mentioned
- ❖ “Knowledge/expert/information” mentioned in 5 sections:
  - Definition of “interested party” (s. 2)
  - Federal authority’s obligation (s. 11, 20)
  - Factors to be considered (ATK) (s. 19)
  - TOR/appointment of members of Review Panel (s. 42)
- ❖ “Aboriginal traditional knowledge” mentioned once (s. 19)
- ❖ Directives and published policy guidance follow legislation

**Some (but limited) focus in CEAA 2012 on the role of science in roles and nothing about process or products**

# Species At Risk Act (2002) provides a contrasting example

- ❖ “Scientific” mentioned 7 times
- ❖ “Knowledge/expert/information/science” mentioned in 12 sections, including the preamble and the purpose, with respect to roles, products, and process.
- ❖ “Aboriginal traditional knowledge” mentioned 8 times
- ❖ Policy and guidance (albeit limited so far) has reinforced the role of science, as have several court decisions

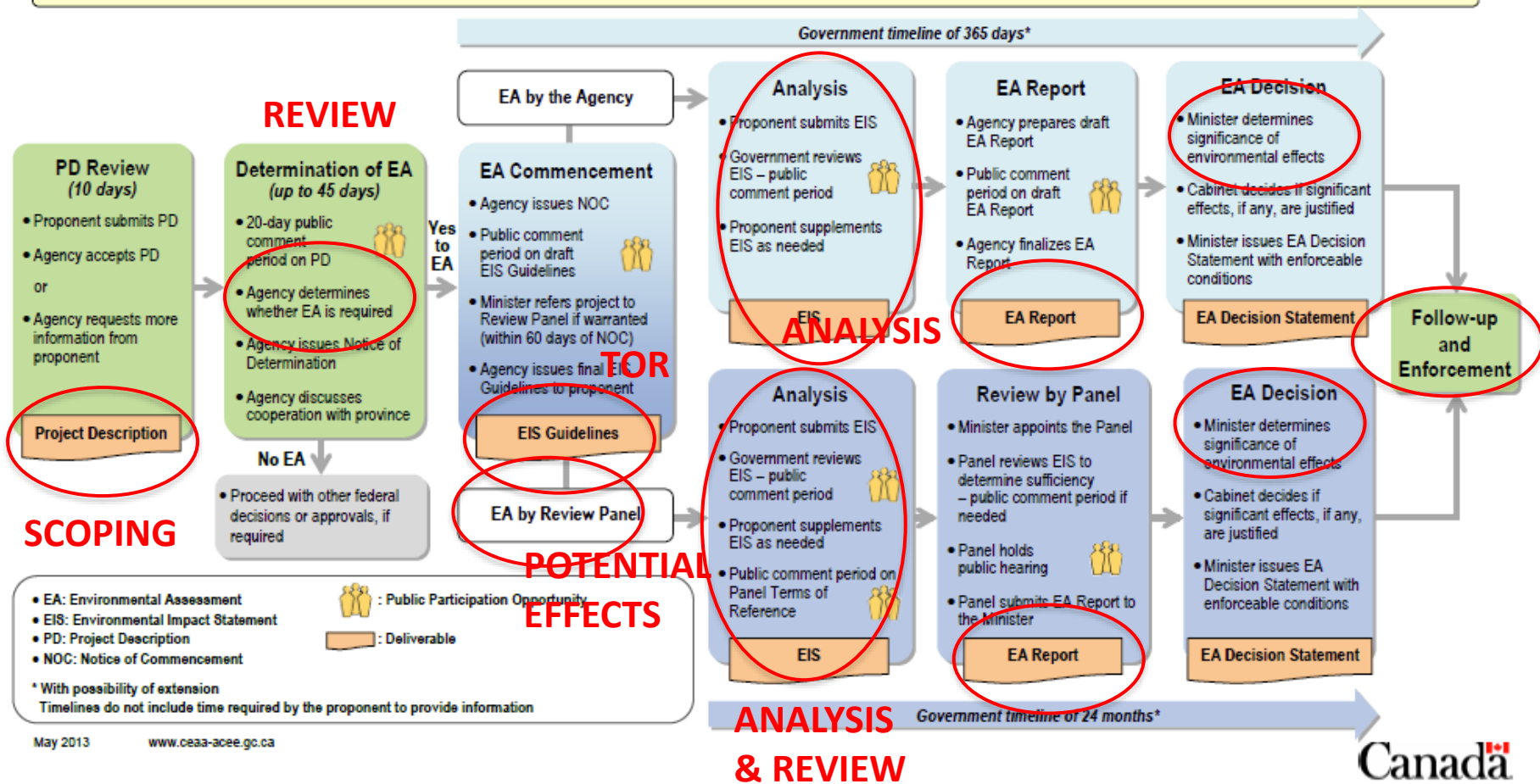
**SARA explicitly distinguishes between products, decisions, and roles that consider scientific information (incl. ATK) alone and those that include socio-economic considerations.**

# Scientific knowledge (incl. ATK) is required at every stage of the CEAA process

(even if ultimate decisions must take into account socio-economic considerations)

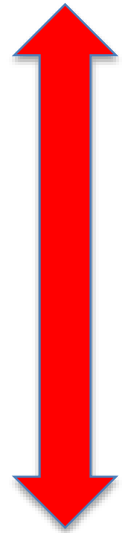
## ENVIRONMENTAL ASSESSMENT PROCESS MANAGED BY THE AGENCY

Aboriginal consultation is integrated into the EA to the extent possible





# Where should the scientific expertise be distributed?



❖ **Federal and provincial agencies:**

*Guidelines, Review, EA Report*

❖ **Proponent (consulting agencies):**

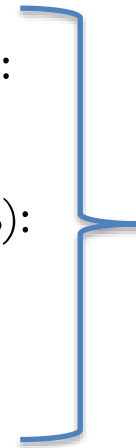
*Project Description, EIS, Monitoring*

❖ **Joint Review panel:**

*Review*

❖ **Government, Academic/NGO scientists, Indigenous communities, etc.**

*Generate Information, Review, Monitoring*



**INSIDE**

**OUTSIDE**

Greig & Duinker 2011. A proposal for further strengthening science in environmental impact assessment in Canada. *Impact Assessment and Project Appraisal*, 29:2, 159-165

# Major Issues requiring attention to better ensure EA processes and decisions based on best available scientific information

- ❖ **Legislation:** Include clear language re incorporation of science/knowledge in EA roles, products, processes, including a preamble and purpose
- ❖ **Development of EA products:** Develop guidelines on expectations of scientific quality of materials (e.g., project descriptions, EIS, etc.) to ensure delivery of the most meaningful and relevant information for decisions
- ❖ **Review of EA products:** Solicit reviews and ancillary analyses by outside experts on relevant components, rather than rely on passive public participation process, increase in-house government capacity for reviews, Increase resources for Indigenous peoples as intervenors
- ❖ **Decisions:** develop clear guidance for decision making, e.g., criteria for project approval/rejection, reporting and interpreting uncertainty
- ❖ **Monitoring and Adaptive Management:** invest in regional monitoring programs, demand robust design, clarify division of responsibility between government and proponents, ensure sustained oversight by RA, coordinate between projects, learn from experience.....