Sneak peek : Upcoming guide on applying an equity lens to infrastructure

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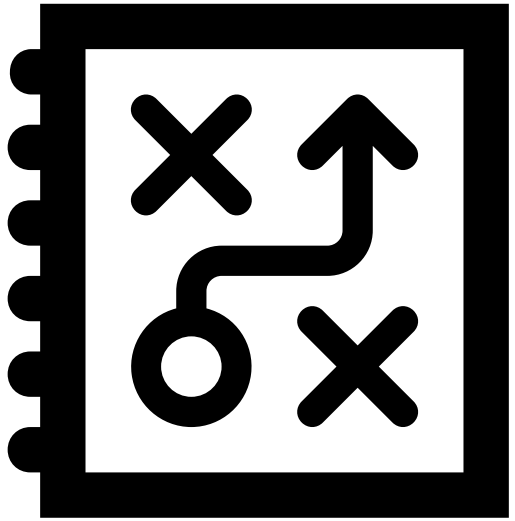
Game plan

- **Context**
  - Standards to Support Resilience in Infrastructure Program (SSRIP)
  - Standards and climate change
  - Climate equity
- **Upcoming guide on how to apply an equity lens to infrastructure**
  - Description of the project
  - Intended scope of the framework
- **How equity can be addressed in water and wastewater projects**
- **Key takeaways**
- **Questions from the audience**



Standards to Support Resilience in Infrastructure Program (SSRIP) (Phase I)

Five-year program (2016–2021), delivered over 40 standardization strategies to adapt Canadian infrastructure to the impacts of climate change

Key themes:

- Arming Standards Writers with Tools to Fight Climate Change
- Designing Infrastructure to withstand Extreme Weather
- Getting the Most Out of Climate and Weather Data
- Helping Northern Communities Adapt to a Changing Climate (Northern Infrastructure Standardization Initiative Phase II)

RESULTS & UPTAKE

- ✓ Guidance for flood resilient design in new communities referenced in **municipal plans**
- ✓ Guidance on flood risk prioritization for **provincial rehabilitation projects**
- ✓ Northern-specific standards in the **Territories' Good Building Practices guidelines**
- ✓ Geotechnical site investigation and community drainage standards implemented in **northern communities**

BENEFICIARIES

- ✓ **Canadians** will enjoy safer communities and climate resilient infrastructure for decades
- ✓ **Engineers, planners, architects, design professionals, and asset owners/operators** will have best practices and guidance
- ✓ **Departments** to partner with SCC and advance adaptation through standardization

What we plan to achieve (2021-2028)

Overarching objective: **Deliver up to 86 standardization projects**

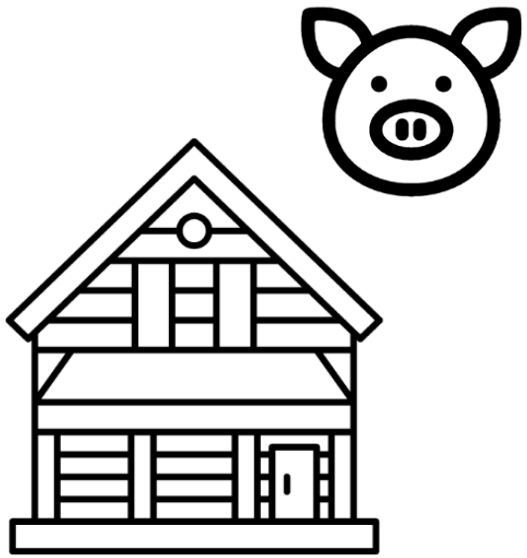
Northern-specific infrastructure	**Strengthening assets against extreme weather events**	**Integrating risk management**
Nature-based solutions	**Low-carbon resilient building materials**	**Climate-resilient transportation infrastructure**

Standards and climate change

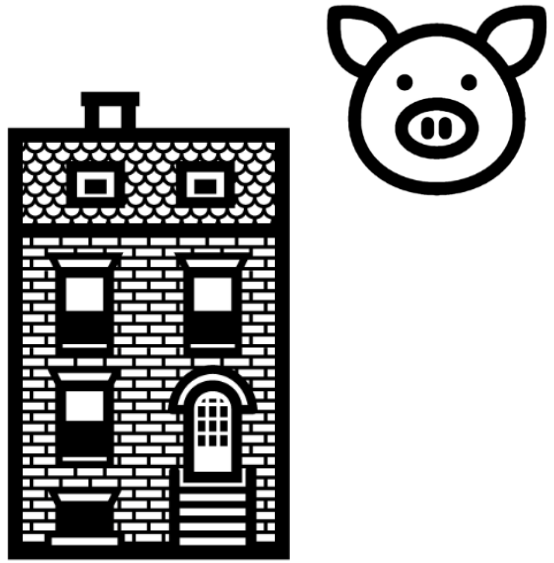
Problem	Solution	Problem	Solution
• Climate impacts lead to environmental stress on the built environment • Ensuring infrastructure is climate resilient is critical	• Standards can specify performance and material requirements used to address climate risks	• Many standards have been developed with historical climate data • Standards are by default voluntary unless enforced by law	• Imperative that existing standards be updated and new standards developed • Professionals can proactively seek out voluntary standards

Key takeaway

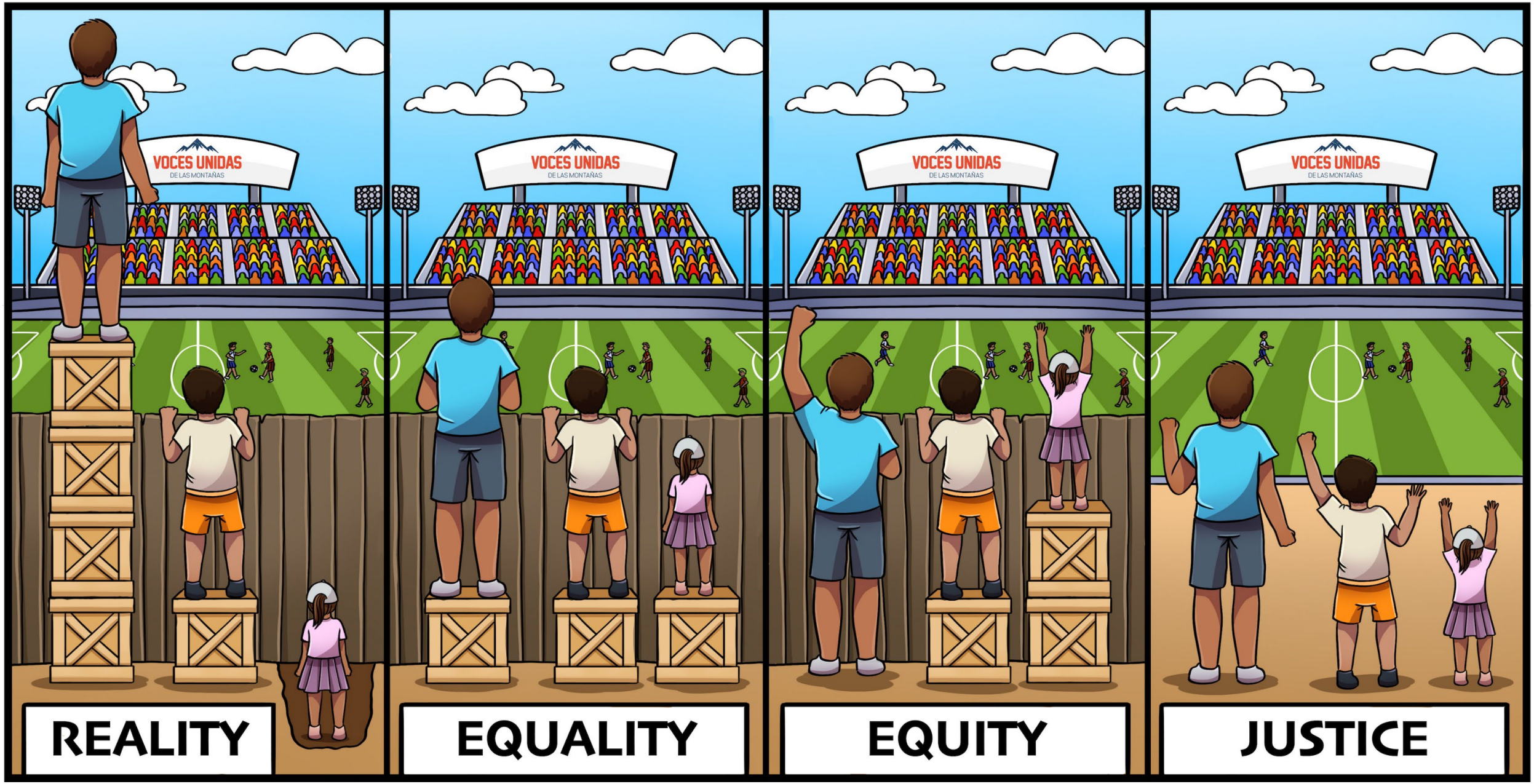
= DIY using YouTube tutorials, etc



= National Building Code of Canada (NBCC)



= NBCC + voluntary standards


VOCES UNIDAS
DE LAS MONTAÑAS
REALITY
EQUALITY
EQUITY
JUSTICE

Climate impacts are not experienced equally

Where we live:

- Northern territories
- First Nation communities
- Coastal communities
- Rural communities
- Racialized communities

Who we are:

- Income
- Age
- Education
- Health
- Gender
- Ethnicity

Climate impacts are not experienced equally

Kevin

Fluent in English + French = no issues in accessing information
High income = options

Physical disability = challenges in evacuation from natural disaster

Soraya

No English or French = barriers to access
Low income = less options, more exposure

Age = vulnerability to extreme heat

Moral argument for climate equity

“If it is true that a chain is only as strong as its weakest link, isn't it also true a society is only as healthy as its sickest citizen and only as wealthy as its most deprived?”

— Maya Angelou, Even the Stars Look Lonesome

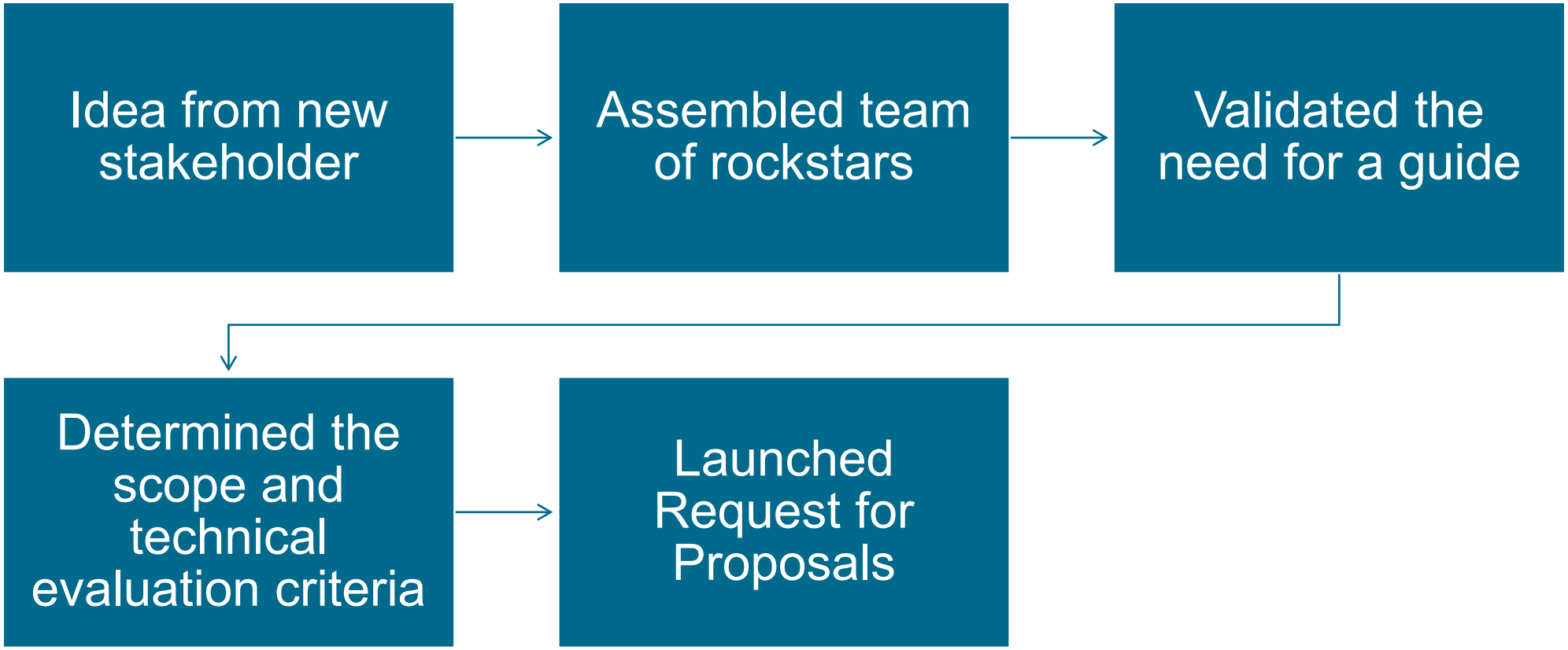
Economic argument for climate equity

- **Labor disruptions**
  - Loss of productivity
  - Unsafe working conditions
  - Lost wages

- **Health impacts**
  - Economic consequences of climate hazards lead to negative health outcomes
  - More strain on health care system


Source: Oregon Department of Transportation

Equity lens for infrastructure



Intended scope of the framework

What is the infrastructure in question

What is the expected service level of that infrastructure that everyone should be able to access

Who will be using this infrastructure

Intended scope of the framework

How can you assess whether the service level differs by users

The social indicators to be used for an equity analysis (e.g., low or unstable income, low access to transportation, etc.)

How would the service needs differ among users

How can you collect information/engage with these users

Sourcing the data

Developing or accessing mapping tools

Engaging the community

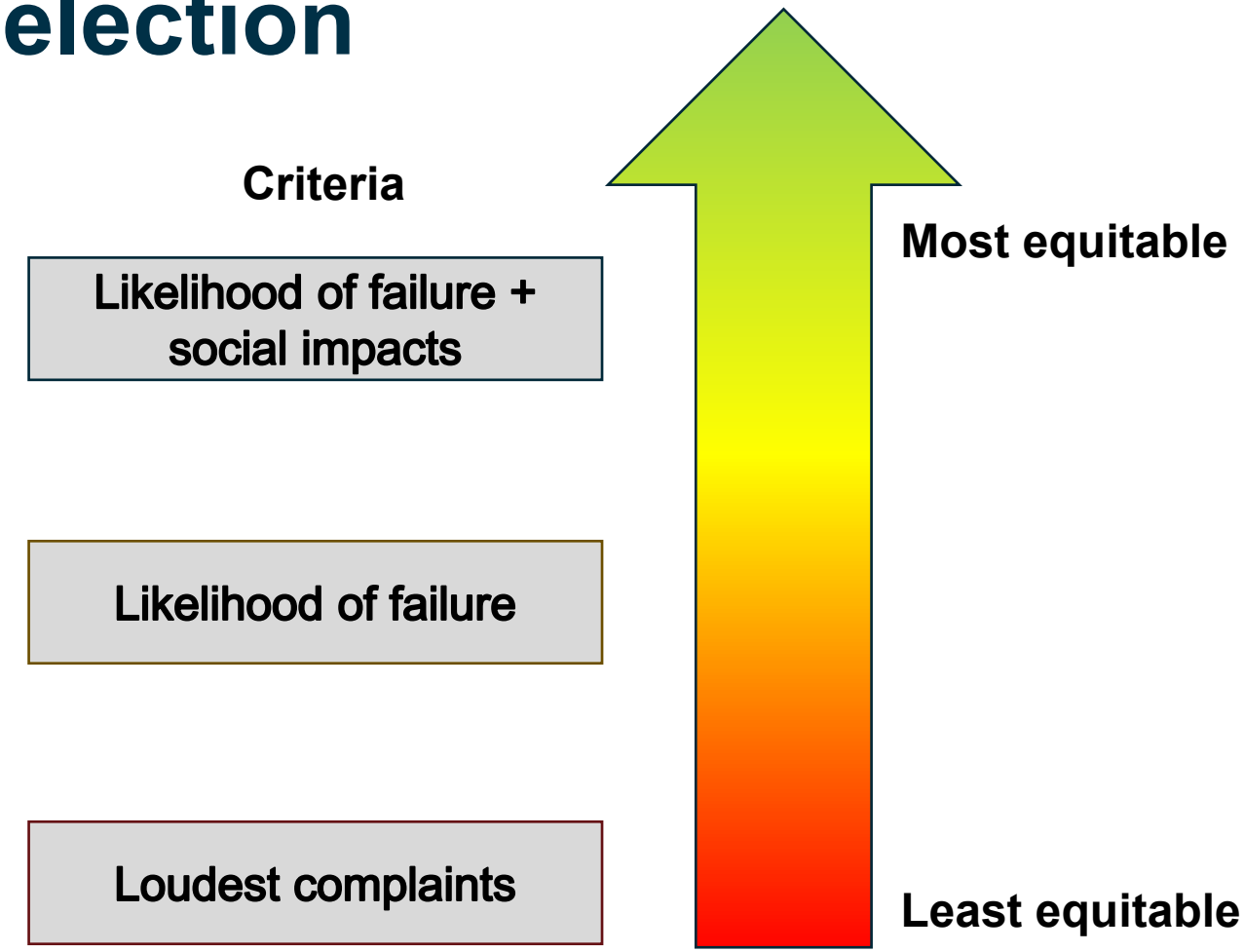
Intended scope of the framework

How do you consider the information gathered to adapt your decision or project to the users' needs

How do you monitor/evaluate effectiveness

Key Performance Indicators

Project selection



Example #1: minimizing harm

Source: CTV News

Scenario:

- Prioritization of basement flood areas

Main equity considerations:

- Which neighborhoods would have the hardest time bouncing back from a flood event?
  - Lower income
  - Basement apartments
  - People with disabilities
  - Elderly people

Example #2: maximizing benefits

Scenario:

- Implementing nature-based solutions for stormwater quality management (e.g. wetlands, rain gardens, vegetated corner bulges)

Main equity considerations:

- Where is there a need for stormwater mitigation?
- Which neighborhood would benefit the most?


Source: City of Vancouver

Project design

Scenario: You're replacing a combined sewer system with a two-pipe separated sewer system in a neighborhood.

Main equity considerations:

- Who lives in the neighborhood? What's their situation? What are their needs?
- How will this project impact the community while it's underway? How will they be impacted by:
  - Traffic management
  - Interruptions in water service
- How do you communicate the impacts to those affected?

Key takeaways

- Climate resilience is about people and their health and safety. Prioritizing equity leads to a stronger community and economy.
- Keep in mind that **assets serve people**.
- When it comes to equity, it’s ok to not get it perfect. Just turn the dial
- You don’t have to reinvent the wheel; use the best practices, technical guidance, and standards that are in your toolbox

For more information

You can participate in this project by:

- Volunteering on the Steering Group
- Being part of the review process

For more information, feel free to contact me:
Stephanie.Poirier@scc.ca.