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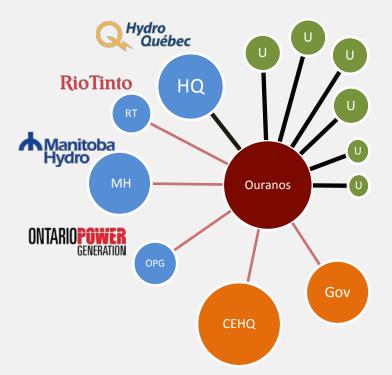
IEA 6th Forum on the Climate-Energy Security Nexus | June 7th 2016

What is Ouranos?

A boundary organization

- Regional climate modeling group
- Climate scenarios and services
- Climate impacts and adaptation studies
- About 400 collaborators
- Annual budget of approximately 10 M\$
- Over 100 projects completed since 2002
- Partners concerned with hydropower and dam safety



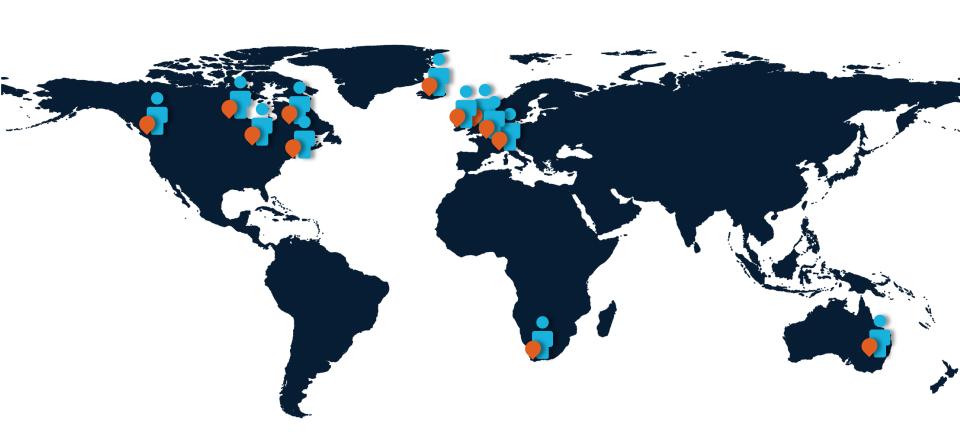








What is out there? Which generate interest?



What is out there? Which generate interest? How was it done? By whom? What can we learn?



Overcoming Barriers to Adaptation



Protecting Assets against an Increasing Risk of Flood



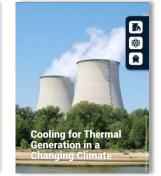






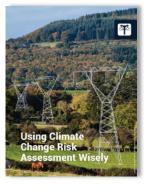






Adapting to Reduced Equipment Thermal Ratings





ouranos.ca/en/programs/energy-adaptation-case-studies/ ouranos.ca/programmes/etudes-de-cas-adaptation-energie/

What is out there? Which generate interest? How was it done? By whom? What can we learn?

Format: Short and Sweet



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2013. Confident had had ment than tails defer Norrand flood preparedness is nothing new

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CASE 05 Storm Hardening in a Climate Change Contex

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CASE 05 Storm Hardening in a

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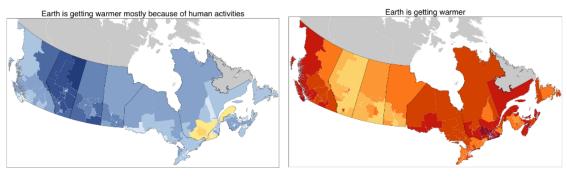
BARRIERS AND REMEDIES

Understanding and Perception of Climate Change Risk

- Complexity (too hard!)
- Imperceptiveness (not bad!)
- Gradual nature (not now!)
- « Climate Sceptics » (a hoax!)

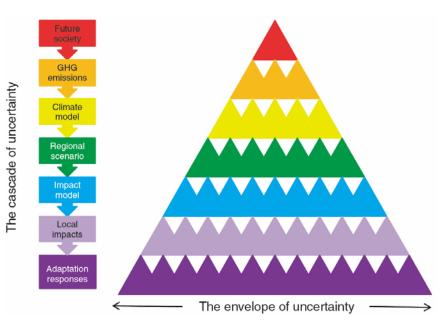
- Collaborate with climate experts
- Precautionary principal
- Serious skeptical questions lead to better and more robust understanding
- Don't call it climate change!

Estimated % of population (2015





Climate Projection Uncertainty



Wilby and Dessai (2010)



- Most decisions are made with imperfect information
- Uncertainty differs between climate parameters
- Assess options under a range of uncertainty
- Decision support tools
- Novel approaches to making decisions under deep uncertainty



Inadequacy of existing Tools

- Business tools not built to ingest climate information
- Tools built to ingest observed climate data
- Tools not sensitive to climate/weather information

- Improving tools can have co-benefits, even for other applications
- Adapting tools may improve business operations





- Adaptation to climate change is becoming mainstream in proactive businesses around the world
- 11 Case Studies cover a range of energy types, adaptation types and practices, issues and organizations
- Sharing and comparing adaptation experiences can have a powerful influence on the energy world
- The formation of consortia engaging industry, government, academia and regulators promotes a common understanding and helps to lift the technical, financial and regulatory constraints
- An adaptation measure is ultimately a decisionmaking exercise, which always benefits from a diverse set of alternative strategies



CONCLUSION



Thank you! Questions?



9 out of 11 case studies are available in French and English at: ouranos.ca/en/programs/energy-adaptation-case-studies/ ouranos.ca/programmes/etudes-de-cas-adaptation-energie/

> For any further questions or comments: Fournier.Elyse@ouranos.ca Braun.Marco@ouranos.ca