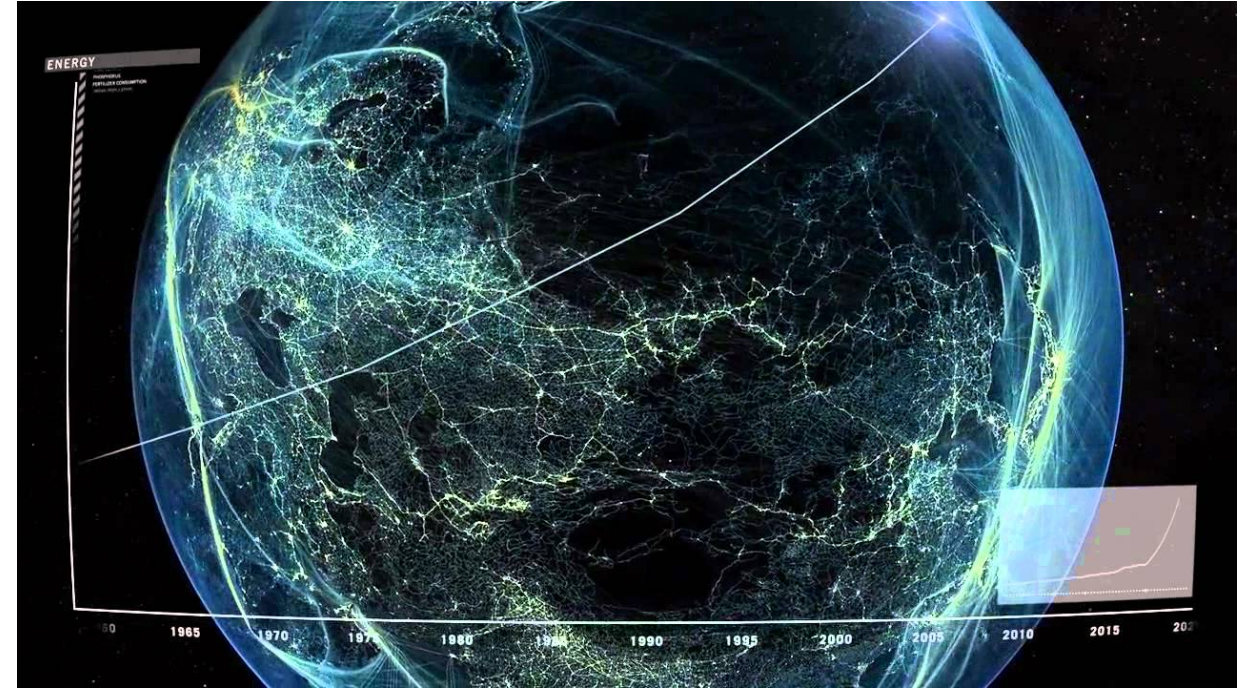


Building a Futures assessment process to identify pathways to sustainability for coastal communities

Dr. Martin Le Tissier, Future Earth Coasts IPO



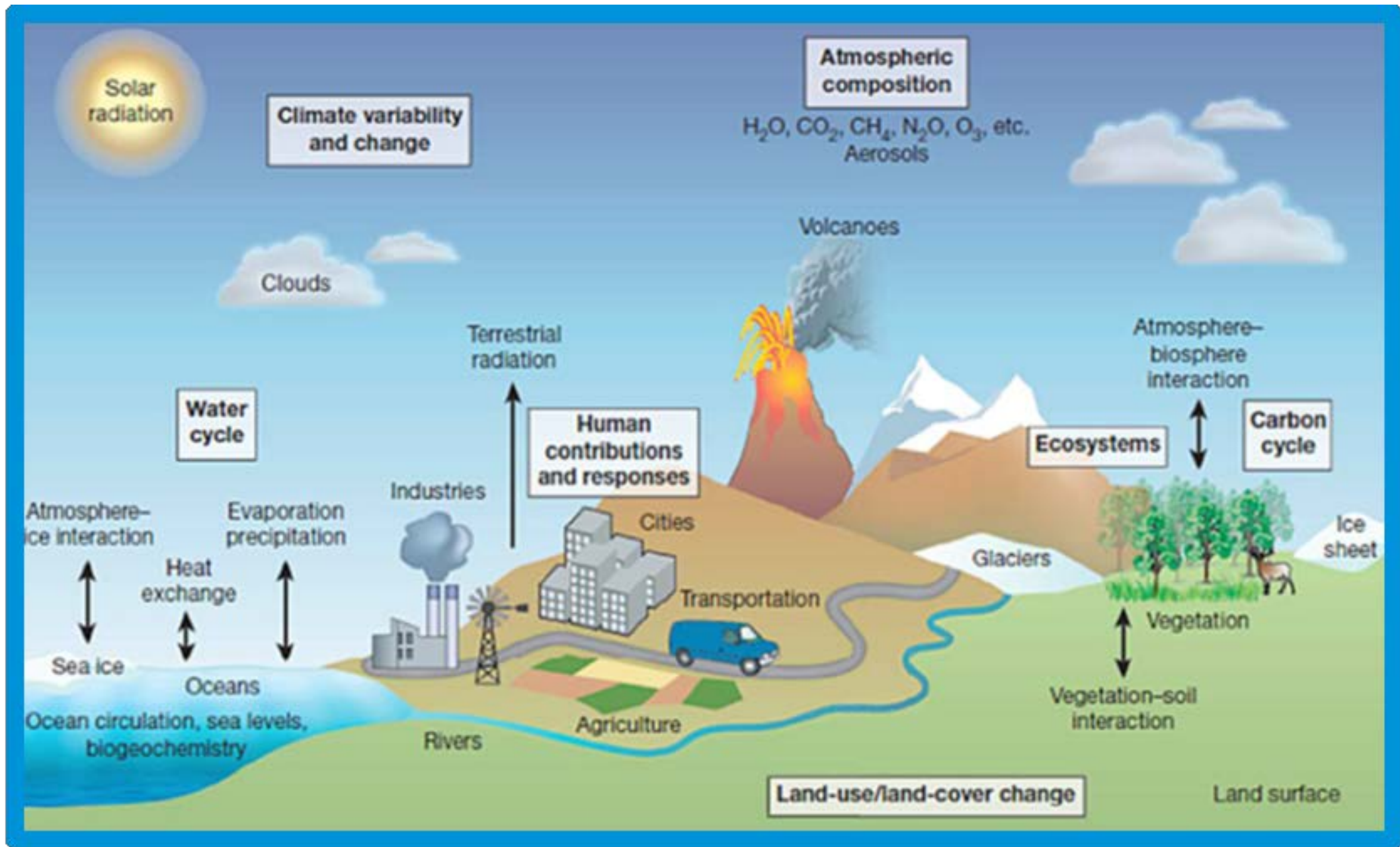
The world is changing ...



<https://vimeo.com/39048998>

What does this mean at the coast..... ? Scale & thresholds?





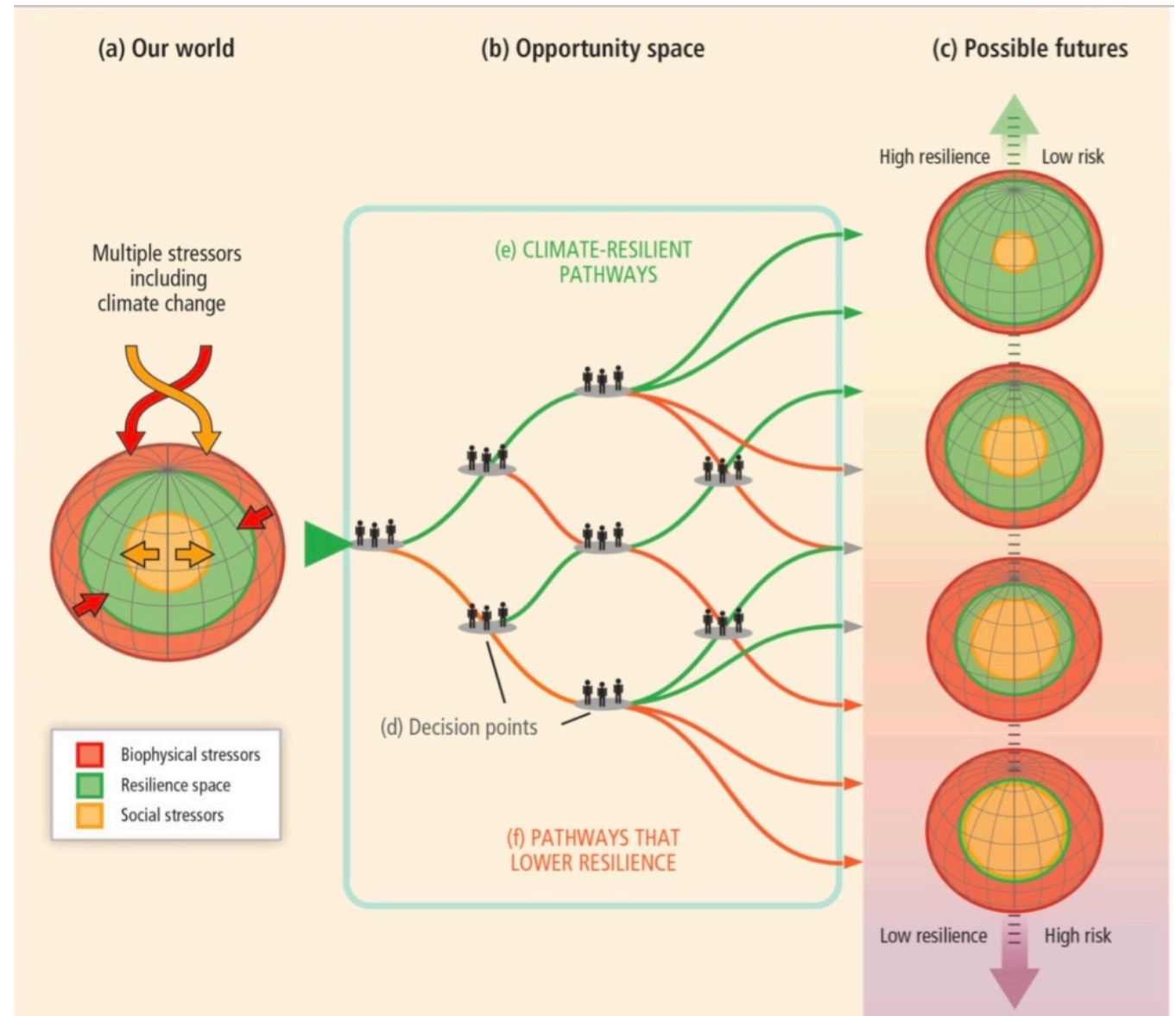
WHAT | finding effective solutions to existing & future coastal challenges



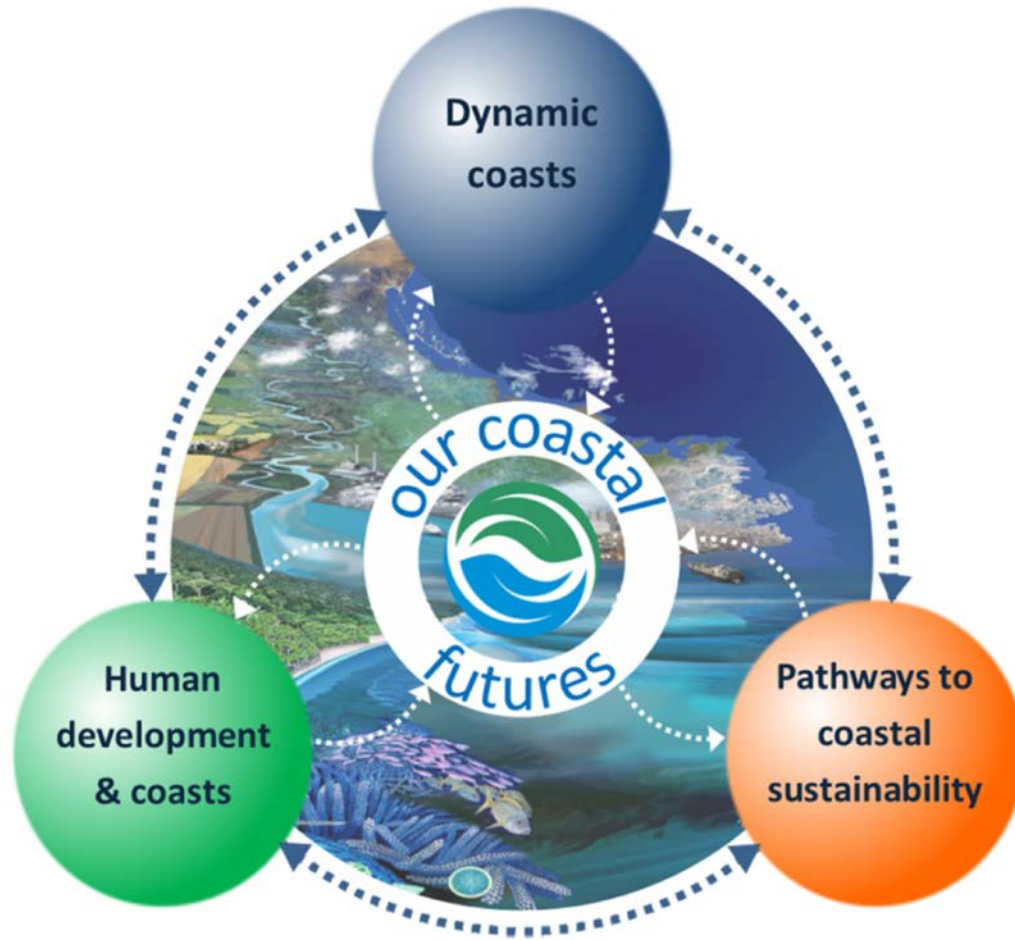






Pathways to Solutions:

- No one definitive solution
- Reduction of exposure and risk to increase resilience



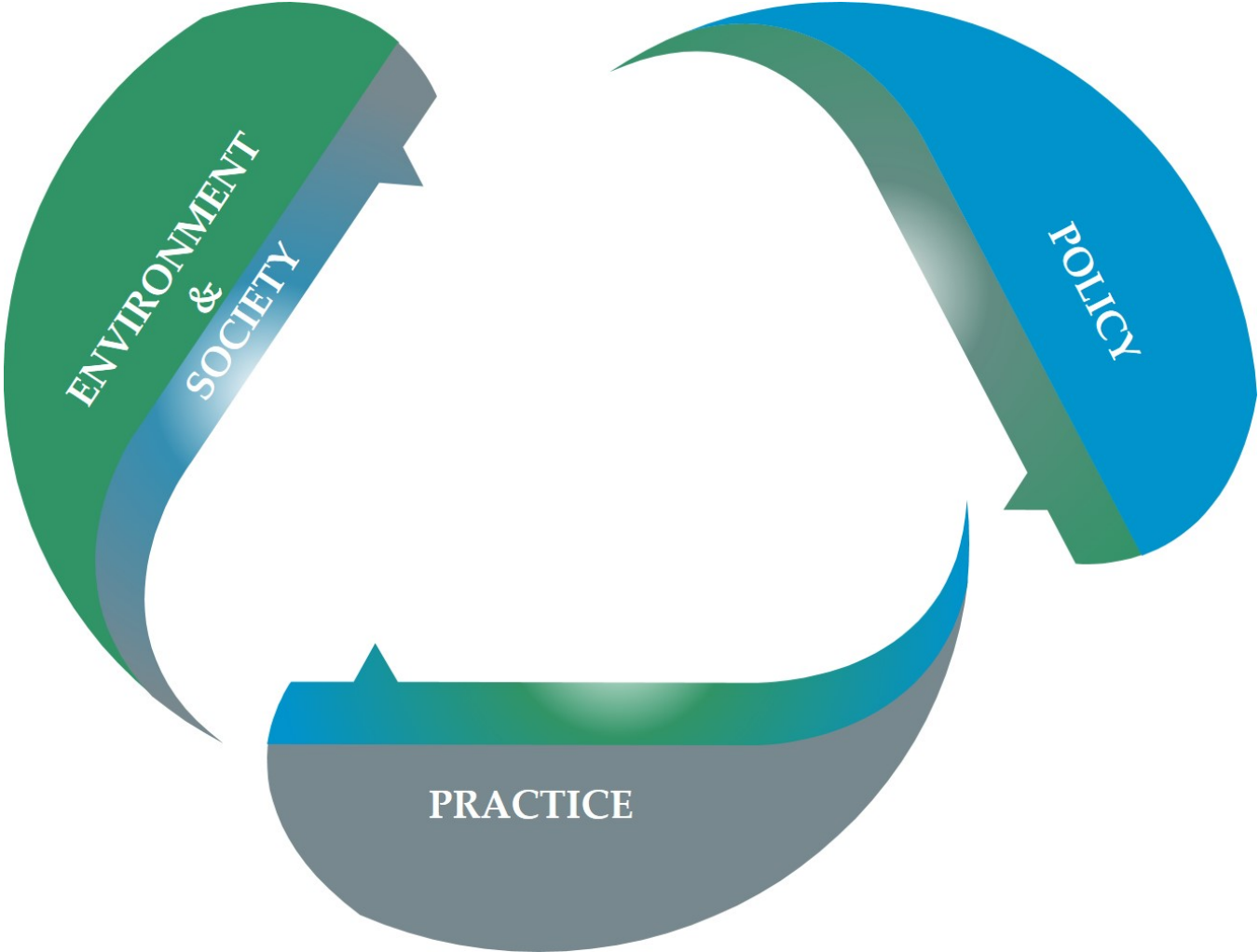
HOW DOES IT FIT | four inter-related themes



-  **Dynamic coasts** explores how and why coastal systems are ever-changing from both natural processes and human interventions.
-  **Pathways to coastal sustainability** explores prevailing practices, institutional structures and processes of development.
-  **Human development and coasts** considers the consequences of human activity on coastal systems to produce frameworks to address constraints and opportunities for sustainability.
-  **Our coastal futures** will chart a new landscape to co-design and co-produce knowledge to develop scenarios for more sustainable coastal futures.



HOW DO WE DO IT | Targeting interfaces: bridging policy, practice and society through science



HOW DO WE DO IT | Targeting interfaces: bridging policy, practice and society through science

Co-design

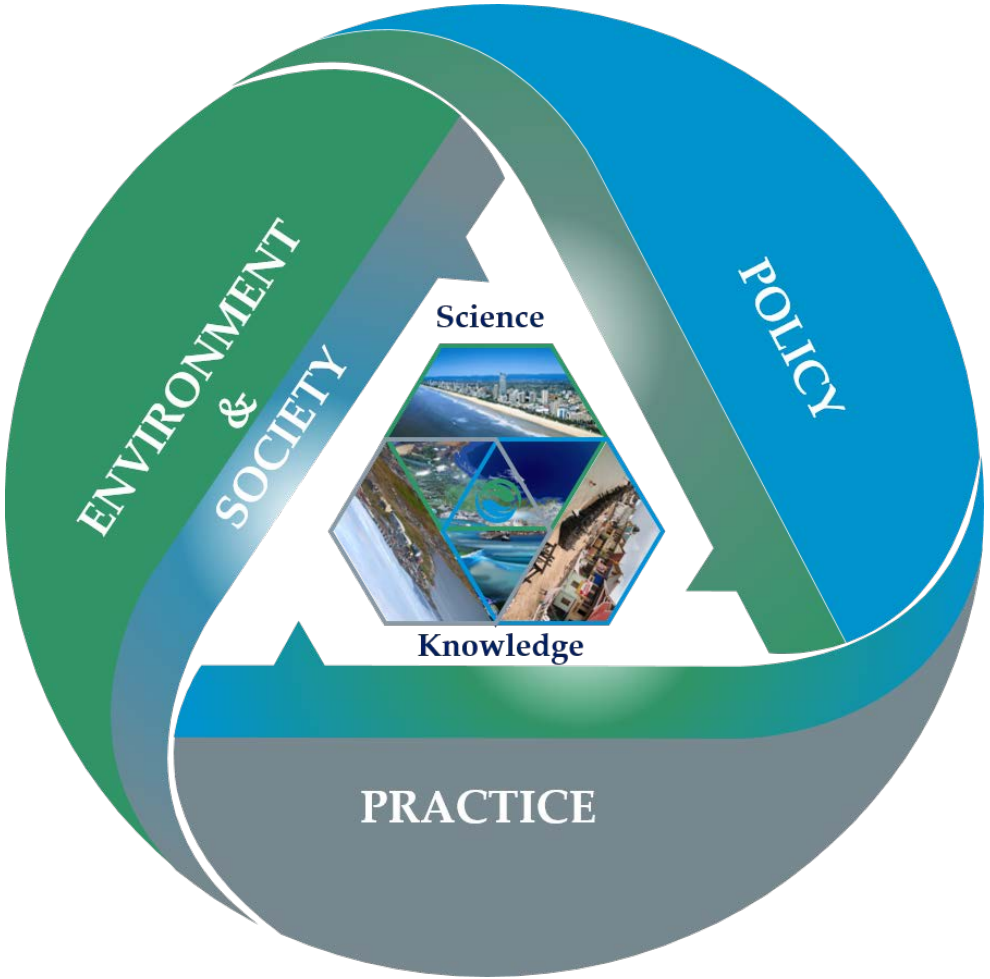
Linkage between society and policy

Societal pressure for change from perceived or real injustice

Justice

Driver between society and practice:

Shifts in social values and priorities



Transformation

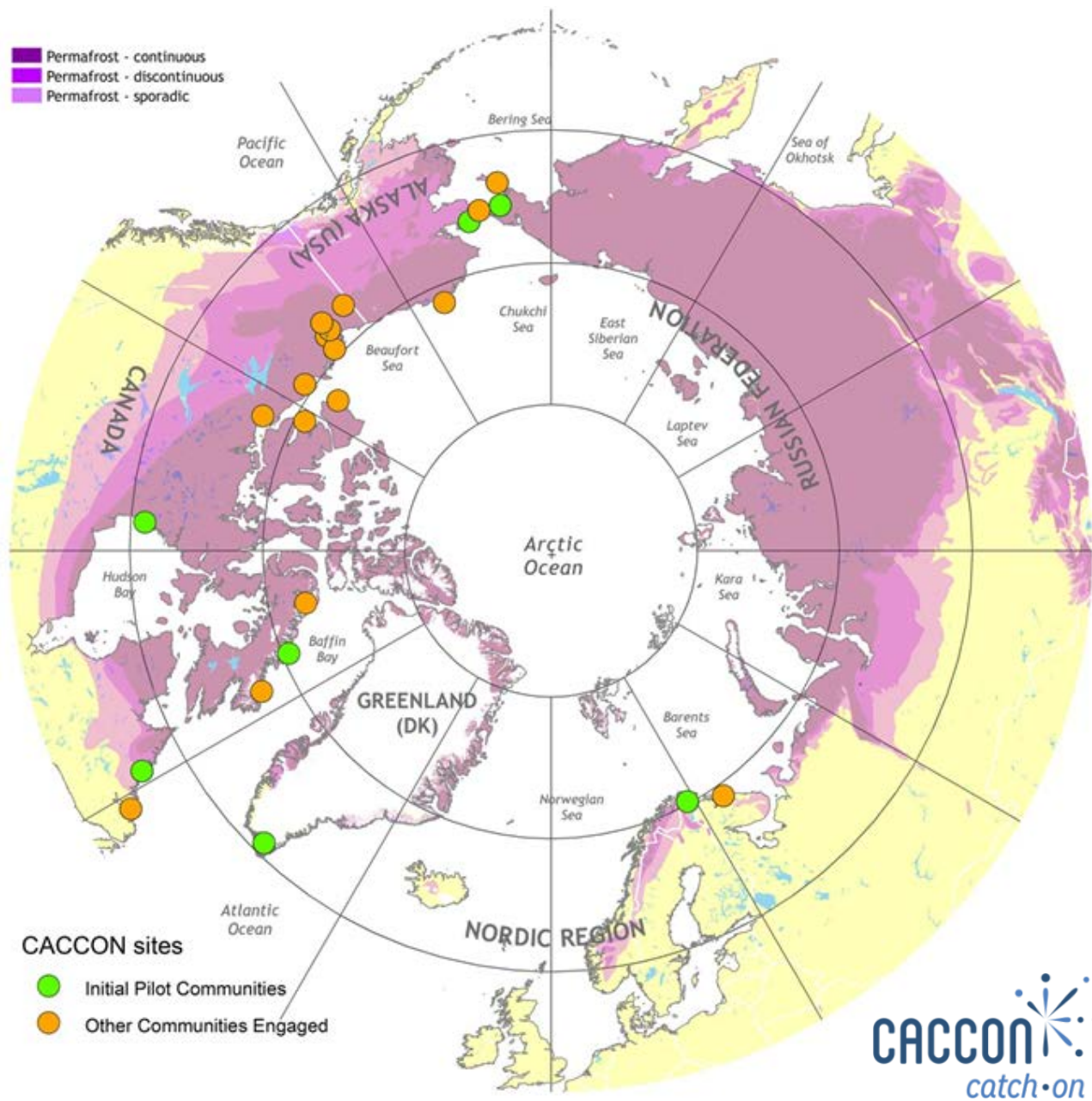
Innovation between policy and practice:

Non-linear changes in response to untenable conditions



- ❄ Distributed network of local (community or regional) knowledge centres
- ❄ Exchange information, data, technical capacity, adaptation strategies, Indigenous Knowledge and Methods
- ❄ Partner with other knowledge networks and programs (ELOKA, Arctic-COAST, Ikaarvik, ITTAQ, AOK, SNCC, UArctic Thematic Network on Arctic Coastal Communities for Sustainability, Future Earth Coasts, ArcticNET, MEOPAR,)





COMMUNITY	PROVINCE/STATE, COUNTRY
Arviat	Nunavut, CA
Pond Inlet	Nunavut, CA
Clyde River	Nunavut, CA
Kugluktuk	Nunavut, CA
Iqaluit	Nunavut, CA
Mackenzie Delta – Inuvik, Fort McPherson, Norman Wells, Tuktoyaktuk	Northwest Territories, CA
Sachs Harbour, on Banks Island	Northwest Territories, CA
Ulukhaktok, on Victoria Island	Northwest Territories, CA
Aklavik	Northwest Territories, CA
Paulatuk	Northwest Territories, CA
Old Crow	Yukon, CA
Nain	Nunatsiavut, CA
Rigolet	Nunatsiavut, CA
Shishmaref	Alaska, USA
Barrow	Alaska, USA
Wales	Alaska, USA
Gambell	Alaska, USA
Kujalleq	GL
Nuuk	GL
Lorino	Chukotka, RUS
Teriberka	Murmansk, RUS
Tiksi (Lena Delta)	Sakha, RUS
Unjárga (Nesseby)	Finmark, NO





SmartICE (Sea-ice Monitoring And Real-Time Information for Coastal Environments)

A community, academic, government and industry partnership



<https://vimeo.com/198242955>



Mobile sea-ice thickness measurements along community travel routes are recorded using an ice sled platform towed by local ice experts and hunters.

Communities view the SmartQAMUTIK as a powerful tool for mapping the dynamic thickness of their coastal sea ice.



Figure 12: A photograph of the autonomous sea-ice thickness sensor deployed on the SmartQAMUTIK. The sensor is an adapted ground conductivity meter (Geonics EM31) that employs electromagnetic inductive methods to measure ice thickness.

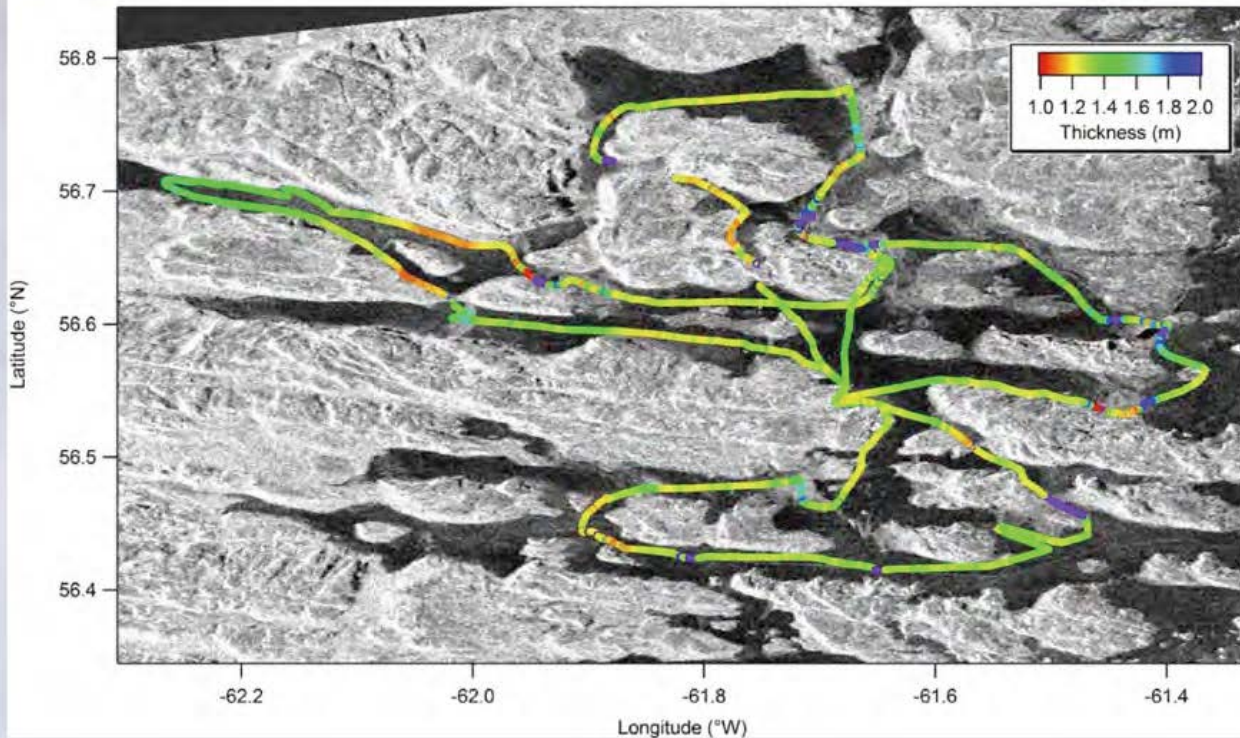
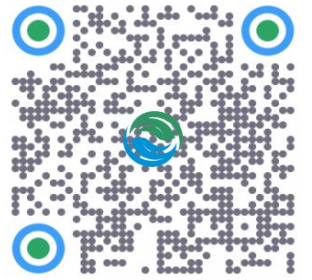


Figure 13. (left) Ice thickness map generated by the prototype SmartQAMUTIK platform in the Nain region in April 2015.



Figure 11. SmartICE researcher next to the SmartSENSOR prior to deployment.



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JOIN THE CONVERSATION

Become part of our community
by joining our mailing list and find
out more about how you can
contribute to the delivery of the
Future Earth Coasts project.

Globally relevant | Locally important

