

Imagining the Arctic of 2050

How do we make decisions
in uncertain conditions?

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Arctic 2050?

The Arctic is currently a place with relatively sparse population and infrastructure but it is crowded with interests.

How will these interests shape the Circumpolar North in the next 34 years?

Unattributable image: Mountain Chalet, Colorado Springs Colorado



What we know for sure

Everyone will have to adapt

Do we do it piecemeal across industries, governments, and communities?

Or, is there a/an INSERT ADJECTIVE (marketplace, equity) incentive for these sectors to consider adaptation together?

How can we explore shared interests and joint adaptation?

Scenarios

What are Scenarios?

- A scenario exercise is a process of asking “what if?” that enables risk management for the future.
- Participatory scenarios are deliberative and draw on expertise of participants regardless of formal training or employment. The goal is to think in new ways about possible futures from many different standpoints.
- Scenarios enable communities to *manage risk* (1) by anticipating changes, (2) bringing people together so no one group is “doing it alone,” (3) supplying data from multiple standpoints and scales (3) figuring out where organizations are succeeding or where changes are needed.

Different ways of looking at the future

[adapted from Lindgren and Bandhold 2009, 25]

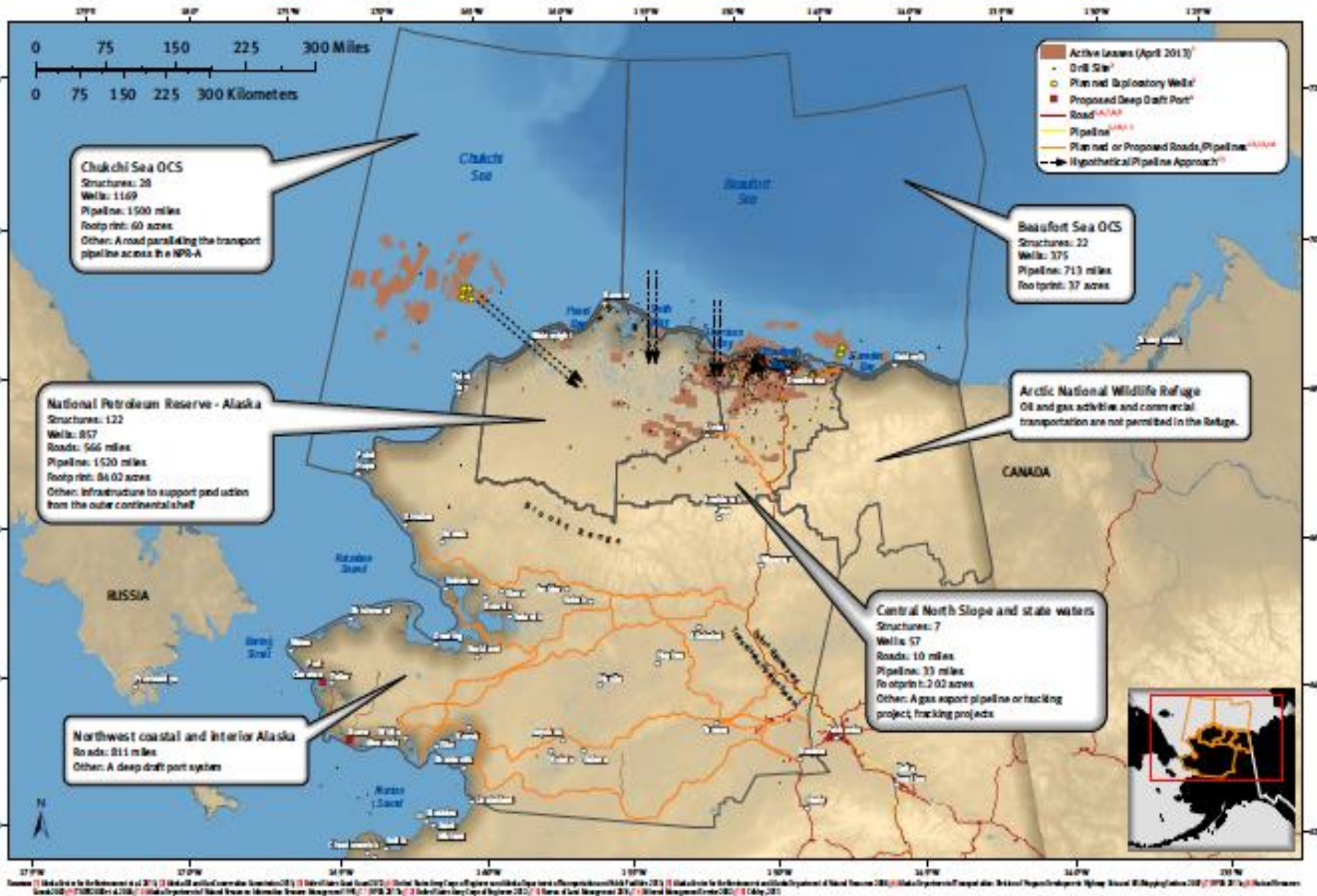
<u>Scenarios</u>	<u>Forecasts</u>	<u>Visions</u>
Possible, plausible futures	Probable futures	Desired Future
Uncertainty based	Based on certain relations	Value based
Illustrate risks	Hide risk	Hide risk
Qualitative or quantitative	Quantitative	Usually qualitative
Rarely used	Daily used	Relatively often used
Strong in medium to long-term perspective and medium to high uncertainties	Strong in short-term perspective and low degree of uncertainty	Functions as triggers for voluntary change

What would happen if?

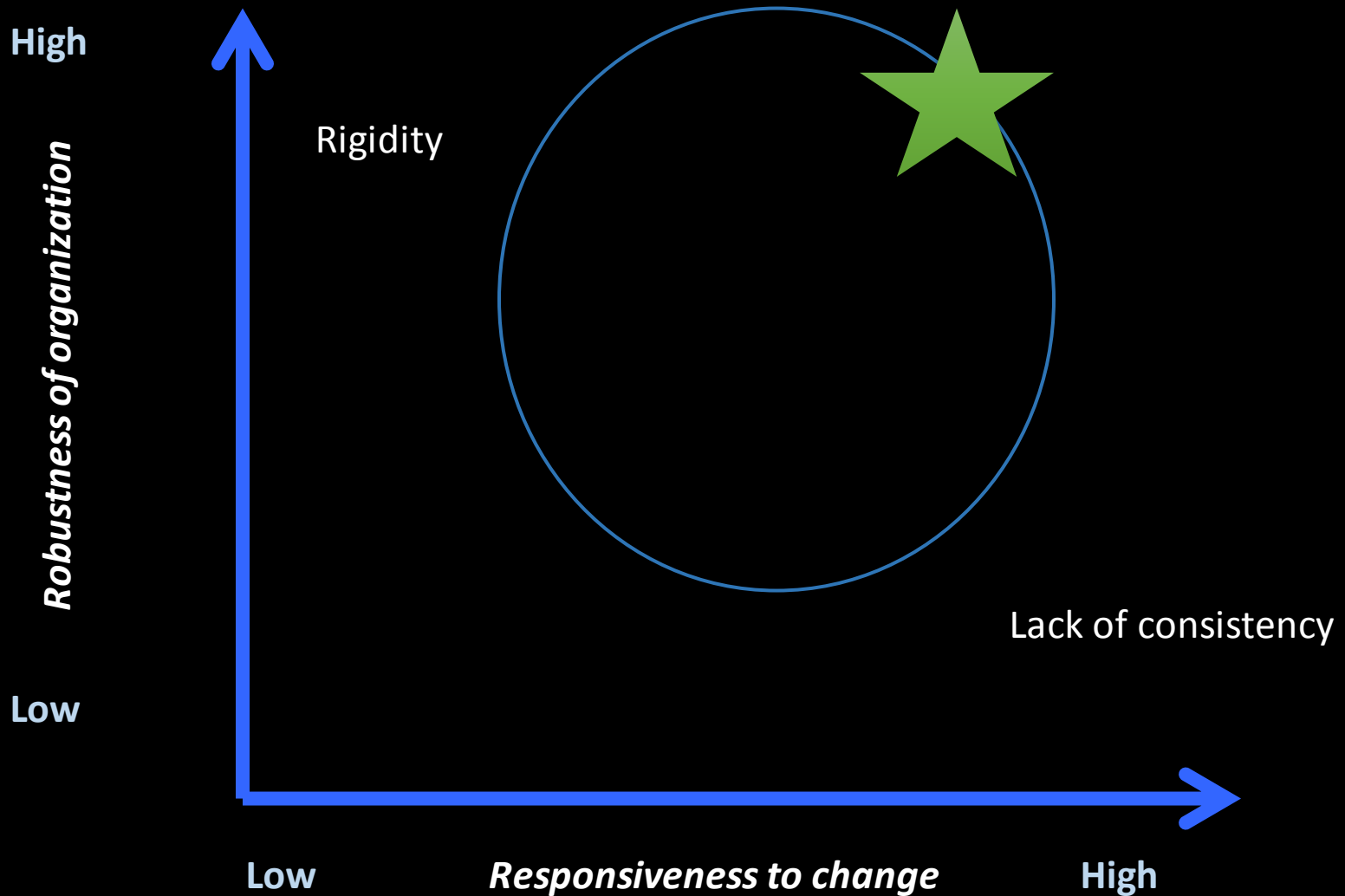
What do I predict will happen?

What do I want to happen?

Existing, Planned, and Proposed Infrastructure Supporting Oil and Gas Activities and Commercial Transportation in Arctic Alaska



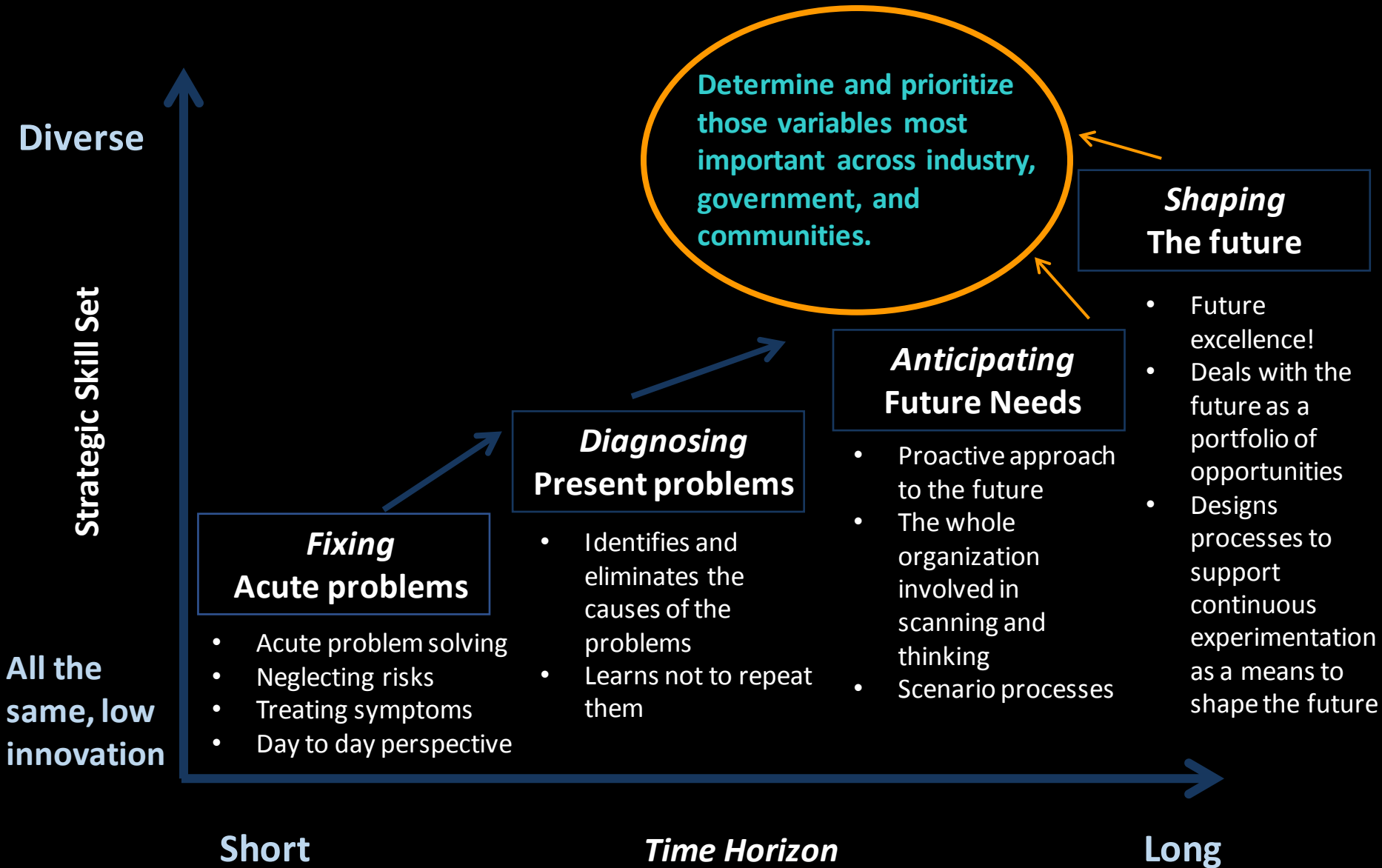
A Synthesis of Existing, Planned, and Proposed Infrastructure and Operations Supporting Oil and Gas Activities and Commercial Transportation in Arctic Alaska, *North by 2020 Report*. Download: <http://www.iarc.uaf.edu/NX2020/current-projects/oil>



Adaptive organizations must be robust but also responsive

Pro-Active, Creative Adaptation NOT Reactive Responses

[adapted from Lindgren and Bandhold 2009, 15&27]



Science policies encourage or limit data availability which is a function of research priorities and investments

Scenarios development among those interested in shared problems can reveal the value of different data across scales, goals, and perspectives

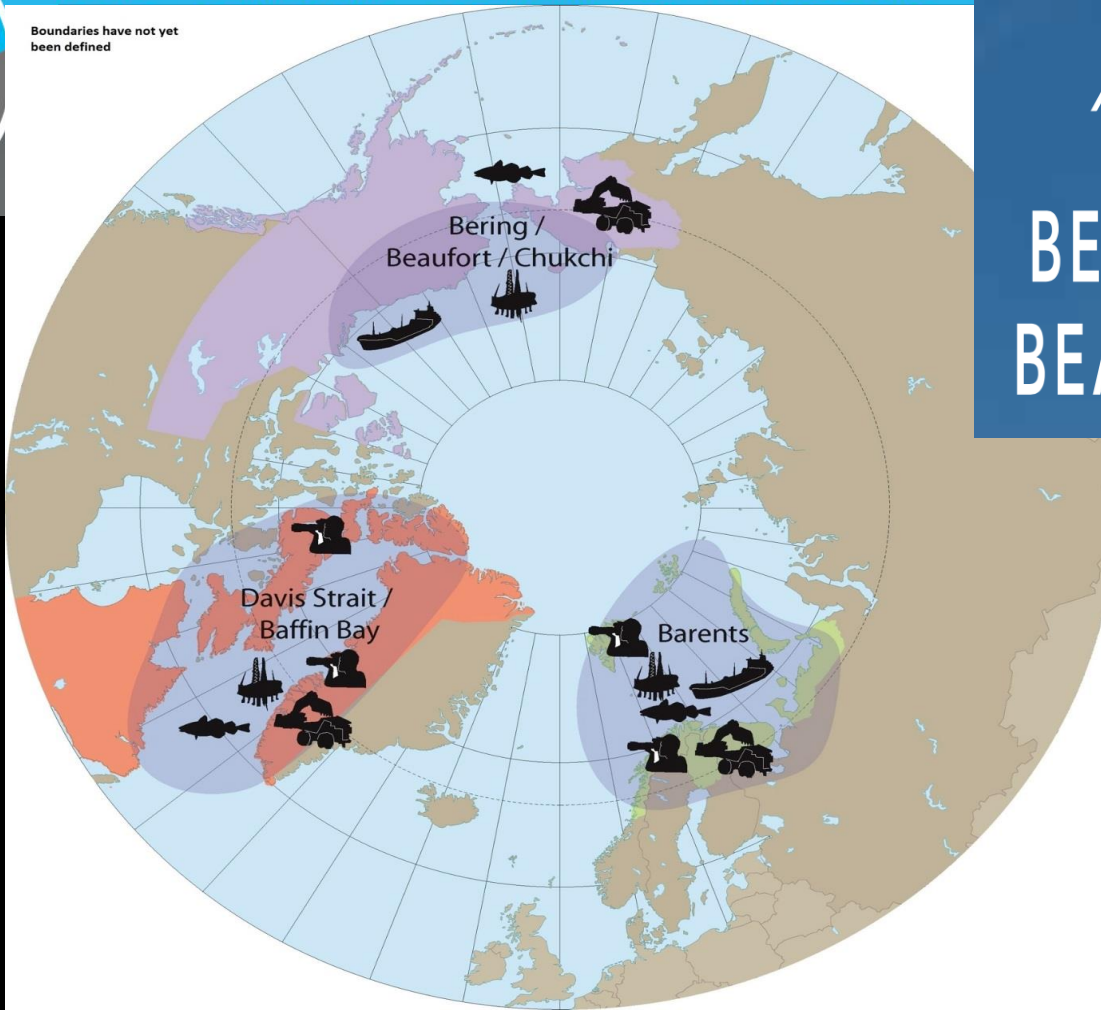
The Future of Education?

		Data Needs Stakeholder priorities	
		High	Low
Data Needs Science policy priorities	High	<p>Connection – High degree of mutual interest. Opportunity for collaboration. How can connections be established to coordinate joint work? How to ensure clear communication in collaboration, research, and reporting of results?</p>	<p>Disconnect – Opportunity for explanation on both sides. Have stakeholders overlooked a key variable or key interactions among variables? Are researchers focusing on an area of little applicable value?</p>
	Low	<p>Disconnect – Opportunity for community-directed research. Why was this subject area overlooked? To what extent is it important to the future of the region?</p>	<p>Null category – Agreement between stakeholders and researchers. But, has enough investigation into sources of knowledge and perspectives on the subject been made?</p>

SEARCH : STUDY OF ENVIRONMENTAL ARCTIC CHANGE

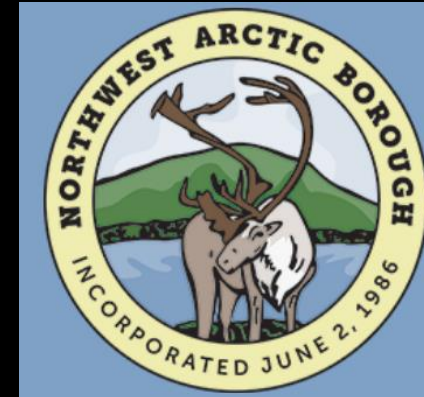


Boundaries have not yet been defined



ADAPTATION ACTIONS
FOR A CHANGING ARCTIC

BERING · CHUKCHI BEAUFORT REGION



THANK YOU!

