An Introduction to Climate Services

Opportunities and Benefits

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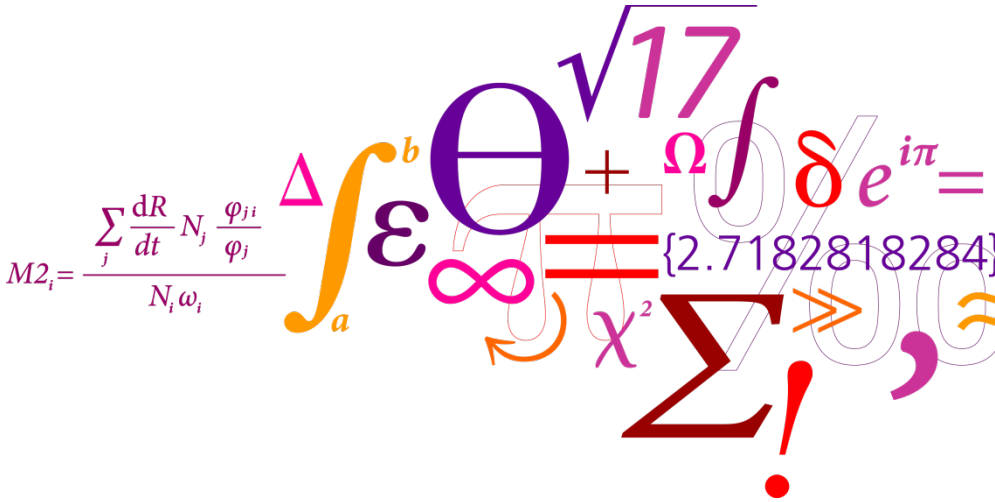


DTU Aqua
National Institute of Aquatic Resources

What is a climate service?

We attribute to the term a broad meaning, which covers the ***transformation of climate-related data*** — together with other relevant information — ***into customised products*** such as projections, forecasts, information, trends, economic analysis, assessments (including technology assessment), counselling on best practices, development and evaluation of solutions and any other service in relation to climate that may be of use for the society at large. As such, these services include data, information and knowledge that ***support adaptation, mitigation and disaster risk management*** (DRM)

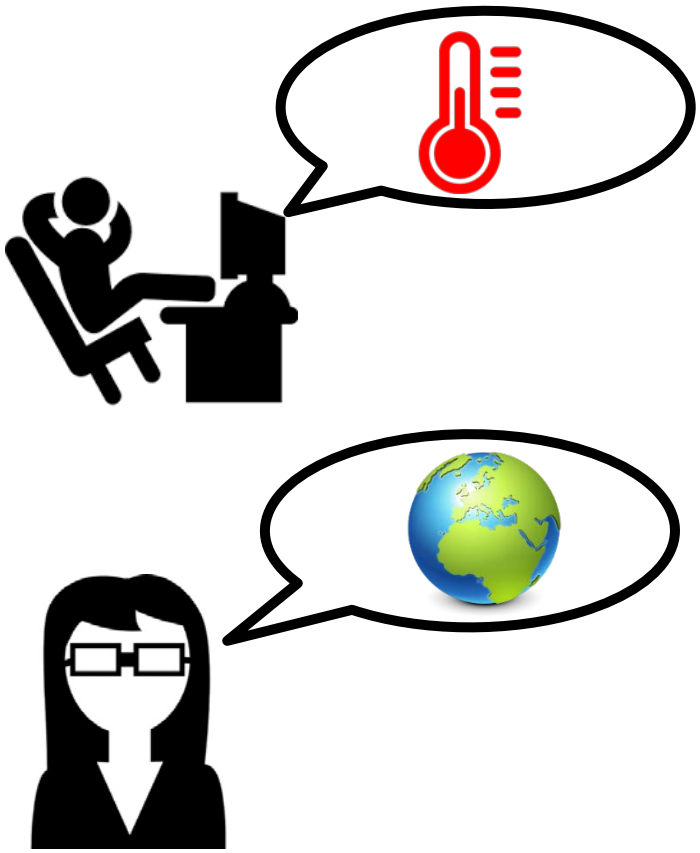
- European Roadmap for Climate Services

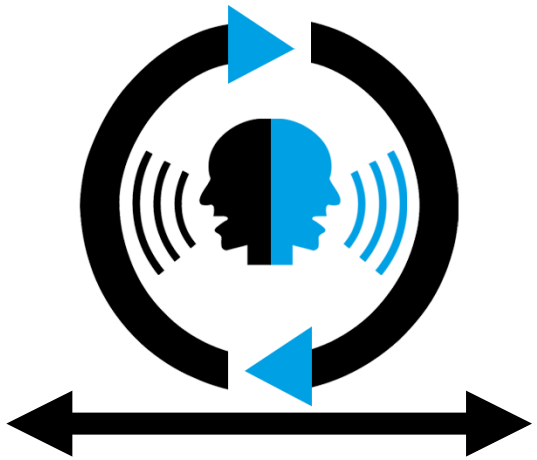
”Climate data is not climate information”

- Francisco Doblas-Reyes

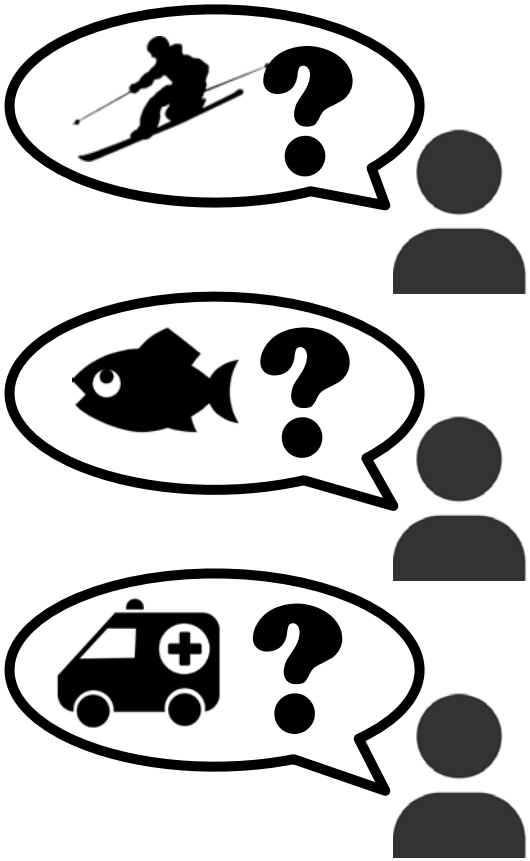
Scientists

End-users





Climate Services



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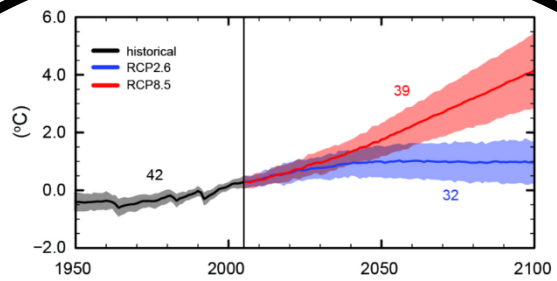
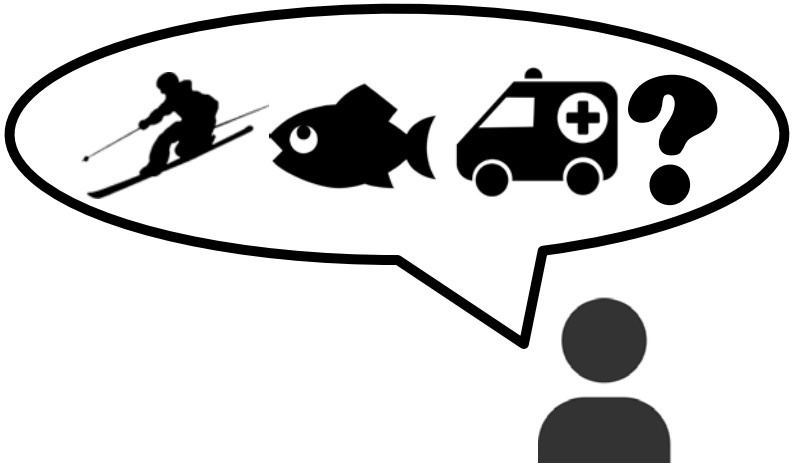
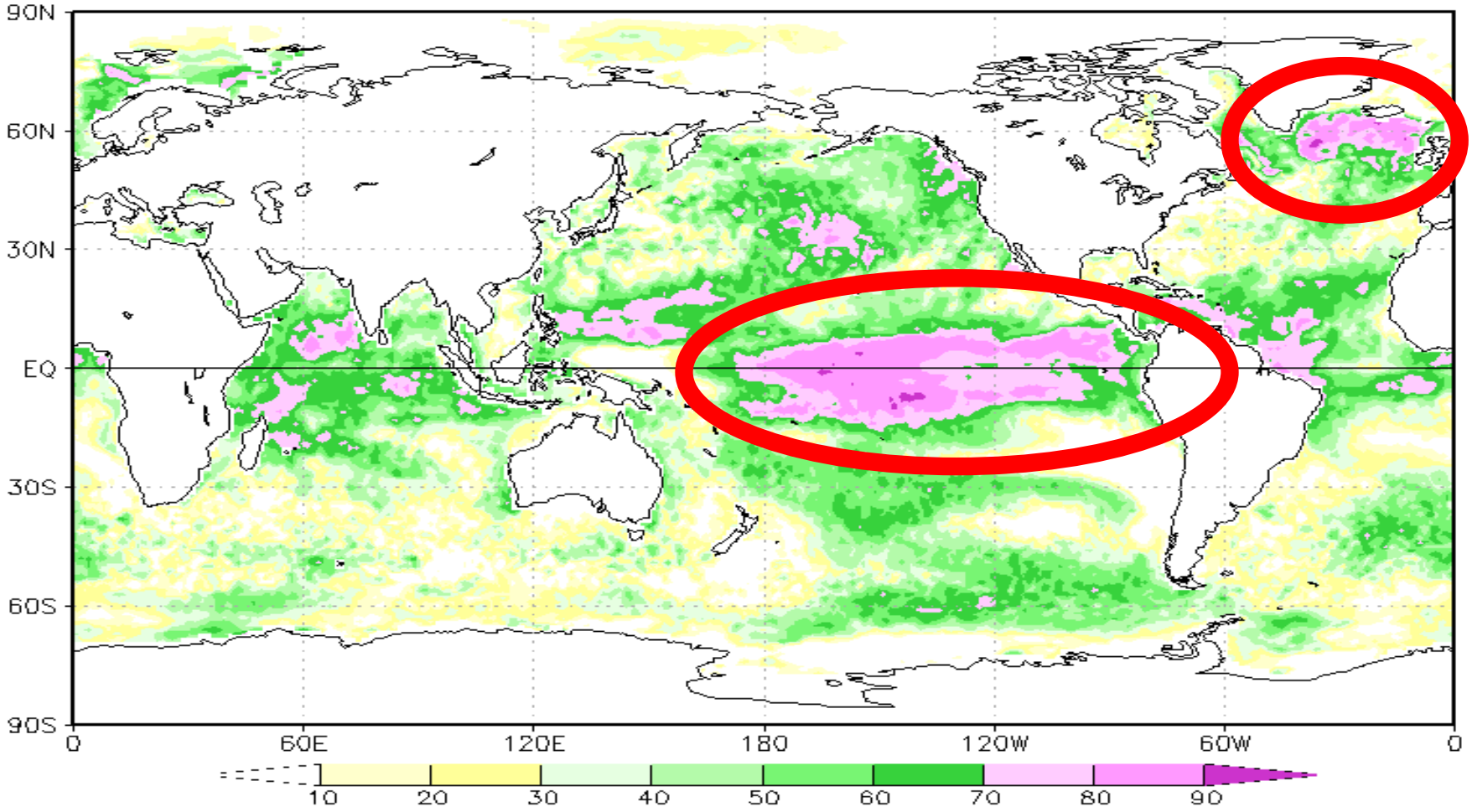




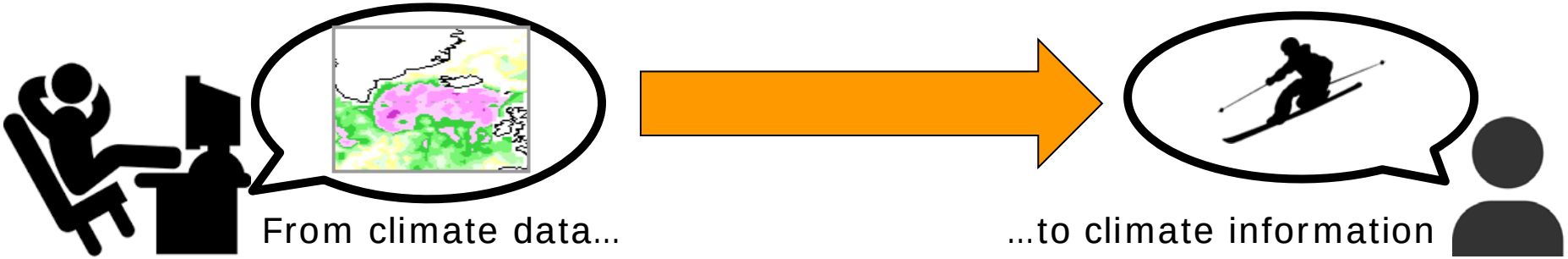
Days Weeks Months Seasons Years Decades Centuries

Climate forecast improvements bring new opportunities



Temperature Forecast skill, 5 months into future

The Fundamental Challenge of Climate Services



- Find balance between what is *feasible* and what is *useful*

- Co-production is the key

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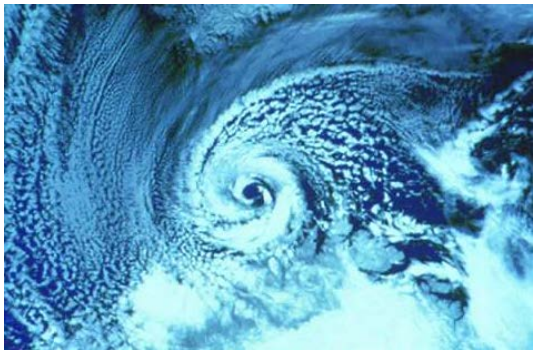
Examples of Arctic Climate Services

Shipping



Tourism

Fisheries

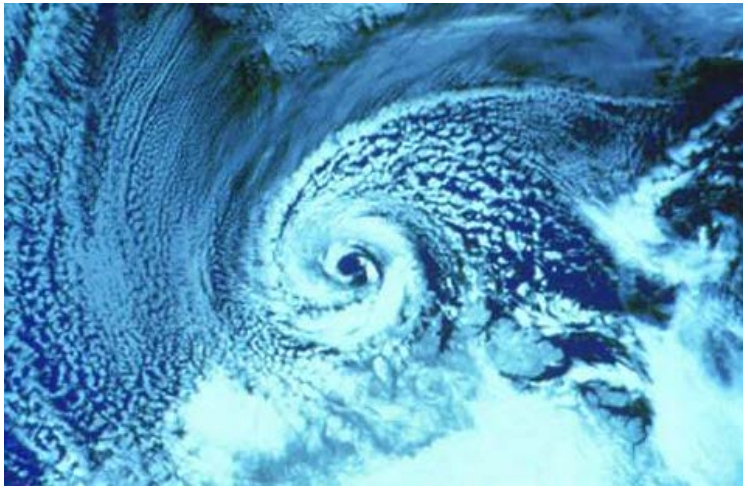
BLUE ACTION

Arctic Impact on Weather and Climate

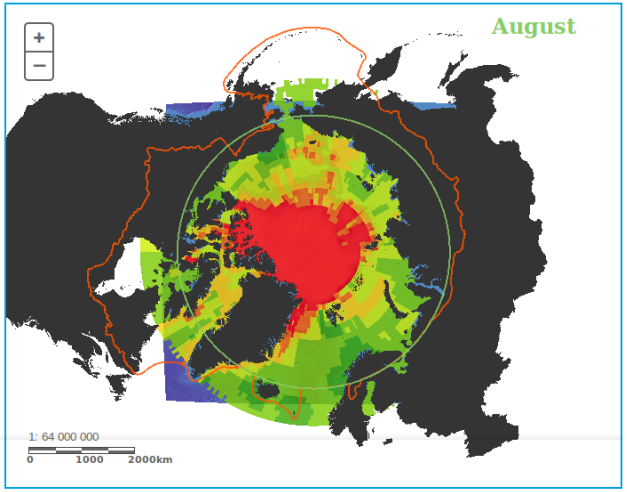
The research leading to these results has received funding from the European Union Horizon 2020 research and innovation programme under grant agreement No 727852 (Blue Action)

Polar-Low Storm-Forecasts
(Erik Kolstad, Uni Research)

Monthly prediction of conditions for polar-low formation for use in shipping risk assessment tools



Polar Low in Barents Sea



Safety risk map

Winter Tourism Industry in Lapland
(Ilona Mettiainen, U. Lapland)

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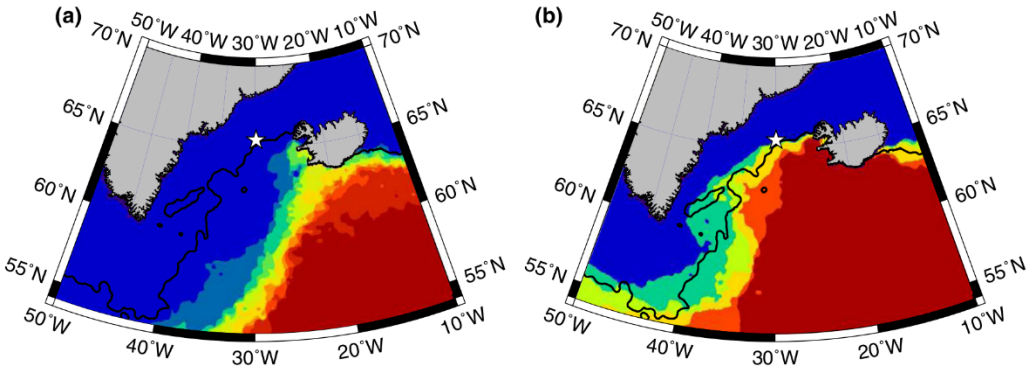
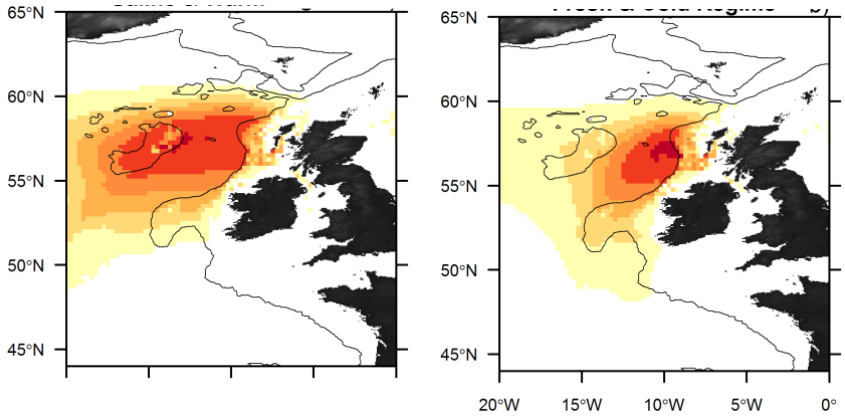
Seasonal forecasts for planning of snow-making & storage activities

Climate Services for Fisheries
(Mark Payne, DTU Aqua)

Annual forecasts of the distribution of commercially important fish stocks



Habitat shifts
of Atlantic Bluefin Tuna



Distribution forecasts of
Blue Whiting

Introduction to Climate Services

Climate data can be translated to information for use in decision-making

Need to strike the balance between what is *feasible* and what is *useful*

Co-development with end-users is key

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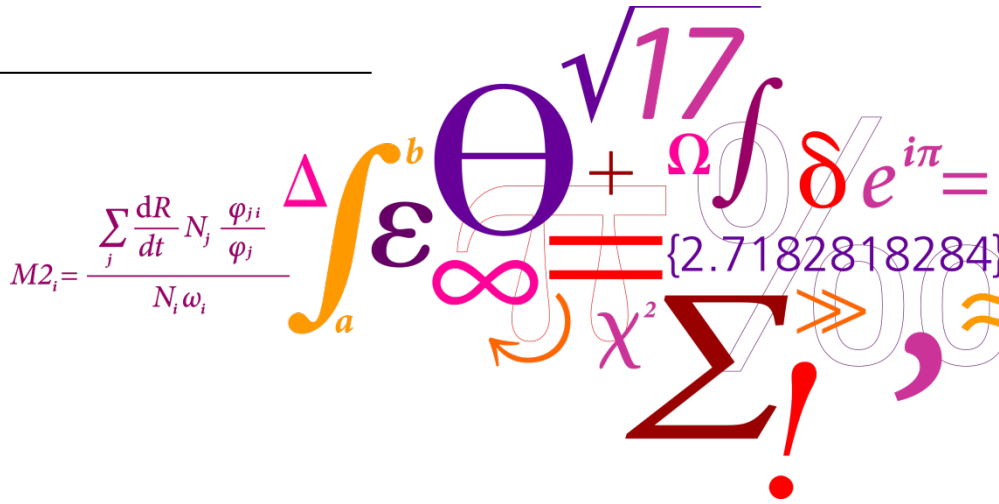
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