How research projects can provide recommendations to policy-makers for informing climate adaptation and mitigation strategies

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- What's the point of engaging?
- Storylines for specific audiences
- S*cience to/for policy* initiatives *(S2P or S4P)*
- Media
- "Intermediaries" (as partners!) to bridge science-policy in your project
- Social sciences and humanities fully integrated in the research projects

Your comfort zone

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Comfort zone

Miles away…

You

?

What's the point of engaging with policy?

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"Science":

Climate data

Economic data

Socio-ecological data

Engagement formats bridging the gap:

- Storylines/narratives
- Foresight/Pictures of the future
- Recommendations/position papers
- Co-production of information
- Co-design of services
- Interdisciplinary collaborations
- Participatory processes

"Decisions"

Global response

Adaptation

Mitigation

Sustainable development

Resource planning and management

Well being

Just transition

…

Context

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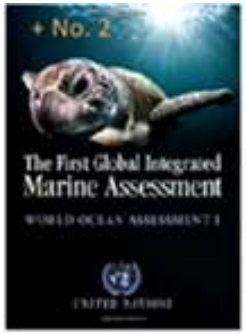

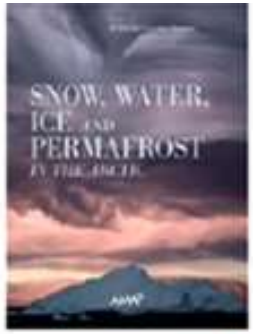

Storylines: What are yours?

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Climate change adaptation requires the **use of storylines and narratives** to bridge the gap between model outputs and policy recommendations

One example adopted:
Long-term, sustained ocean observations are required to inform climate predictions and develop a **Digital Twin of the Ocean and Earth Systems**.
Observations can help predicting the climate more precisely over longer time scales Information at **regional and local scales** is needed to support climate change adaptation and prepare for extreme events.

Storylines and know your audiences: Example 1

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The slowing Gulf Stream? What we know and potential impacts

European Parliament MEPs: Meissner (DE), Serrao Santos (PT)

Briefing 2018

Storyline Blue-Action and AtlantOS:

Atlantic observations > climate modelling > fish forecasts > economic and societal impacts

Tor Eldevik, Univ. Bergen

Storylines and audiences: Example 2

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Extreme weather risks to Arctic shipping

Prototype climate service of temperature-attributable mortality for Europe

HeatHealth.eu
European Heat Health System

BLUE ACTION

NACLI

SEVENTH FRAMEWORK PROGRAMME

ECRA

Briefing 2020 European Parliament

MEPs Schaldemose (DK), Paet (EE)

Storylines:

Observations > Tipping Points> Regional and local scales

1 > Forecast extreme events for Arctic shipping routes (DNV)

2 >Climate change adaptation: Health system planning, urban planning, heat stress, and urban heat effect (ISGlobal, VITO and GIM)

S2P: All-Atlantic Ocean Research Alliance

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https://allatlanticocean.org/
Horizon 2020 funded project

➔ 3 Intl agreements + bilaterals between EU and Argentina, Cape Verde and Morocco
➔ Supports cooperative research for societal benefit
➔ Bridges communities beyond research
➔ Is open to other countries and can serve as a model for other basins

Initiatives contributing to the All-Atlantic Alliance

Climate variability	348
Emerging pollutants	264
Ocean observation	504
Ocean resources	519
Ocean technology	334
Polar research	112

Search for initiatives →

This website is developed by the AANChOR Coordination and Support Action, aimed to support the implementation of the Belém Statement, which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 818395.

Media: How your story will be put into shape

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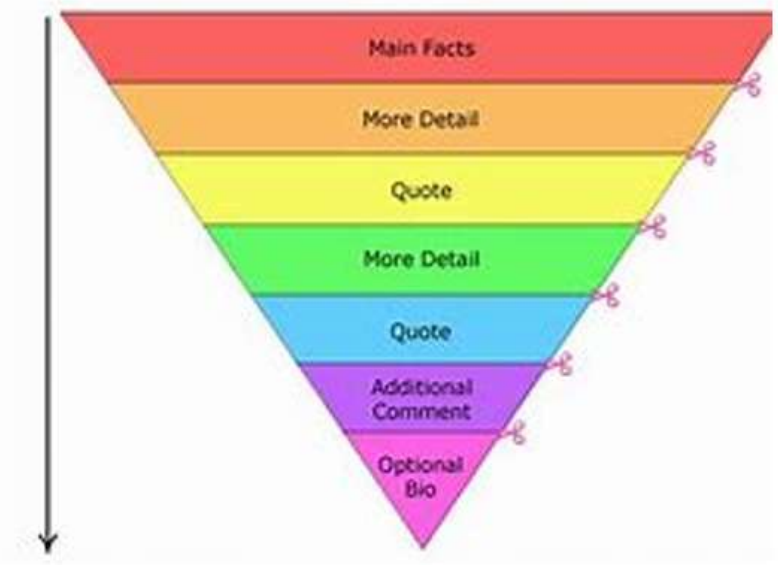
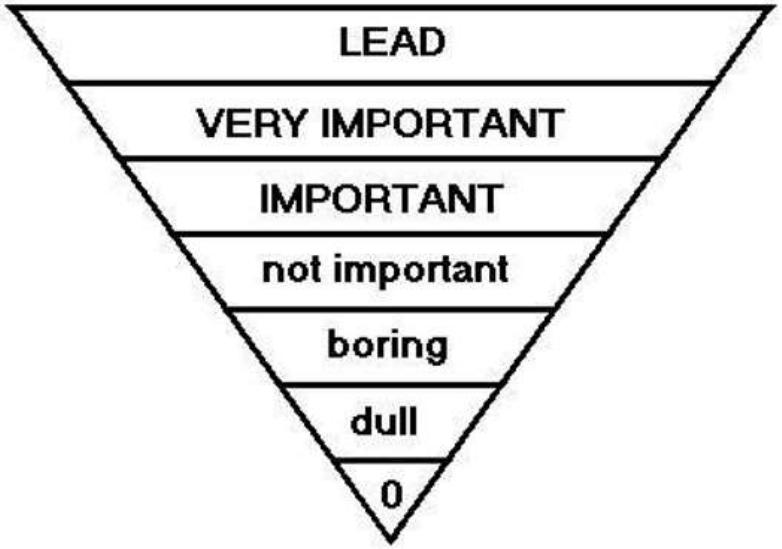
Euan Paterson, The Scottish Association for Marine Science

The news story





https://zenodo.org/records/3906360

Manage a viral photo: Get your Comm team involved

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Credits: Steffen Olsen, Danish Meteorological Institute

Interdisciplinarity

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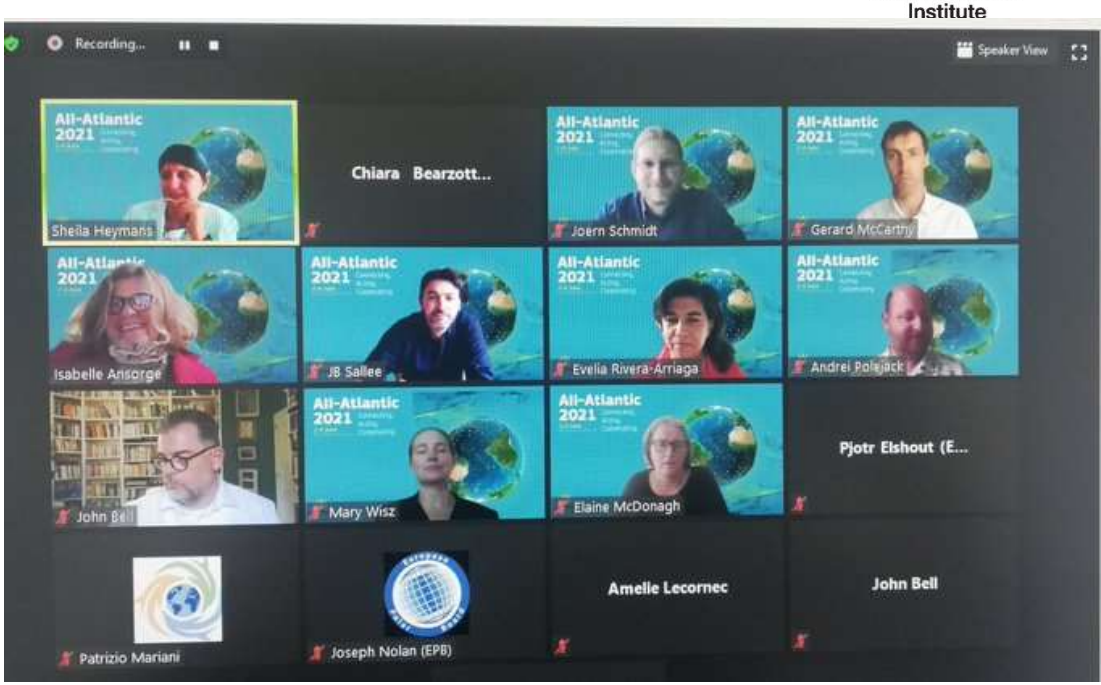
Interdisciplinary collaborations allow a joint global response to climate challenges and risks

Natural and social scientists, experts from disciplines such as law, policy, public health, education, media, along with decision-makers, diplomats, and other stakeholders must **collaborate to identify policy relevant research questions and carry out research**



BLUE ACTION

SO-CHIC Southern Ocean Carbon and Heat Impact on Climate

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TRIATLAS

Science diplomacy

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Ocean Science Diplomacy

What is it?

Mary Wisz & Andrei Polejack
WMU-Sasakawa Global Ocean Institute World Maritime University

OCEAN SCIENCE DIPLOMACY

SCIENCE IN DIPLOMACY	DIPLOMACY FOR SCIENCE	SCIENCE FOR DIPLOMACY
SCIENTIFIC EVIDENCE INFORMS NEGOTIATIONS AND SUPPORTS DECISION MAKING	OCEAN SCIENCE IS COOPERATIVE, DIPLOMACY FOSTERS JOINT GLOBAL OCEAN RESEARCH PROJECTS AND CAPACITY BUILDING	SHARED CHALLENGES AND THREATS ENCOURAGE COORDINATED AND PROBLEM-DRIVEN SCIENTIFIC COOPERATION AND DIALOGUE BETWEEN COUNTRIES TO INFORM BETTER DECISIONS
Examples of international decisions that require ocean science: • fish stocks management, • marine ecosystem protection and restoration, • adaptation and mitigation actions to climate change • hazards forecast and prediction, • communities' livelihoods, • maritime zoning • others	Examples • Ocean Biodiversity Information System • Harmful Algal Bloom Monitoring and forecasting programs • Seabed 2030 • All-Atlantic Ocean Research Alliance • Global Ocean Observing System • Tsunami warning system • The UN Decade of Ocean Science for Sustainable Development (2021-30)	Examples include: • Displacement of fish stocks due to a changing climate (McIlgorm et al. 2010) • Sargassum bloom in the Caribbean (Chávez et al. 2020) • Marine research projects between conflicting nations (e.g. between the US and Cuba (Ramenzoni et al. 2020))

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@MISSIONATLANTIC www.missionatlantic.eu

Collaboration between oceanographers and musicians

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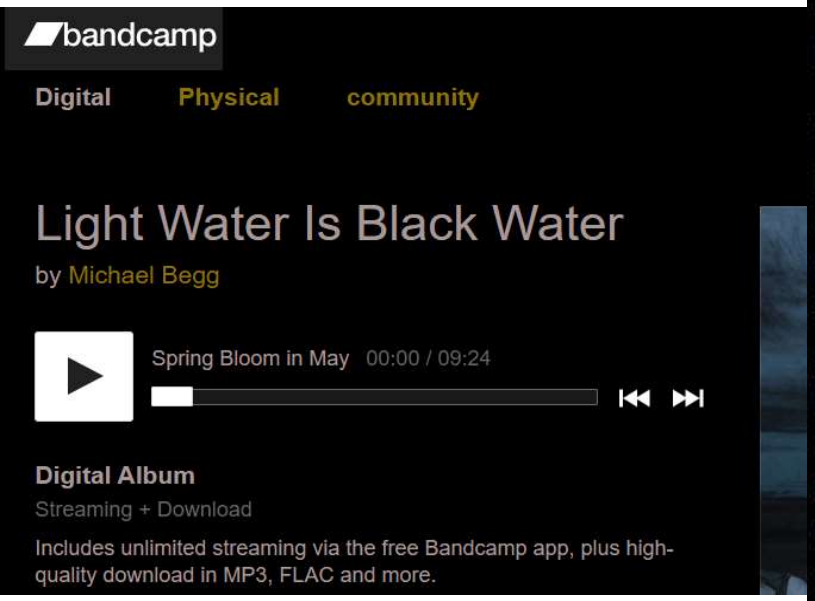

Michael Begg, composer

https://omnempathy.bandcamp.com/track/the-arctic-day

Download includes an exclusive 13 page booklet, with commentary from the artists and scientists involved in the creation of this work. Also, a further exclusive download collates the development diary, press release and presentation script.

"The whole ensemble work is the product of the data. The melodic lines, the harmonic content, the timbre, amplitude and mode arise from daily average data points for ice concentration and thickness, air temperature, pressure, precipitation and evaporation. The greatest insight here, for me, is that the data did not speak of wild fluctuations, and atonal ruptures to harmony or structure. The data spoke only of these fractional changes, a degree here, a metre there, that brings our survival into question. These compositions, therefore, seek to articulate a richly textured and complex balancing act. If we experience anxiety in listening to these pieces, it is the fear that something might actually occur to break the spell. Should these ambient works rupture, we end." Michael Begg, 2021

This recording arises from a commission from the OCEAN ARTic Partnership (People Ocean Planet, Blue Action, MASTs, Creative Informatics) established to bring creatives and marine climate scientists together to increase public engagement with marine data science.

Collaboration with data scientists, musicians and poets

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Francisco Braga, +ATLANTIC's researcher/musician

Music video showing the evolution of the North Atlantic's sea surface temperature, namely the number of MHW events, from 1982 to 2020

The piano playing in sync with the data is a translation of the raw data into musical notes.

What you are listening to is, in a certain way, the very own voice of the Atlantic, the humming of marine heatwaves

https://youtu.be/MRY6f_Zk1JQ?feature=shared

CoLAB +ATLANTIC

Team up: Join forces with other projects/initiatives

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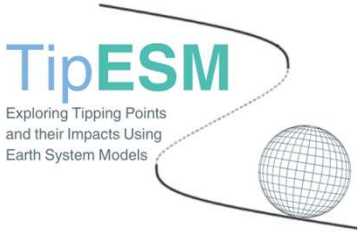

Exploring Tipping Points and Their Impacts Using Earth System Models
https://www.linkedin.com/company/tipesm

ObsSea4Clim: Ocean observations and indicators for climate and assessments
https://www.linkedin.com/company/obssea4clim

Ocean-Cryosphere Exchanges in ANtarctica: Impacts on Climate and the Earth System
https://www.linkedin.com/company/euoceanice

Group for High Resolution (satellite) Sea Surface Temperature
https://www.linkedin.com/company/ghrsst/

Join us for potential collaborations! chb@dmi.dk

Where will YOU be heading next?

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