



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

*Danish
Center for
Marine Research*



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission

The Ocean Decade's Arctic process

- The development of a *regional action plan* for the Decade



The Ocean Decade

Decade Vision & Mission

“

Vision

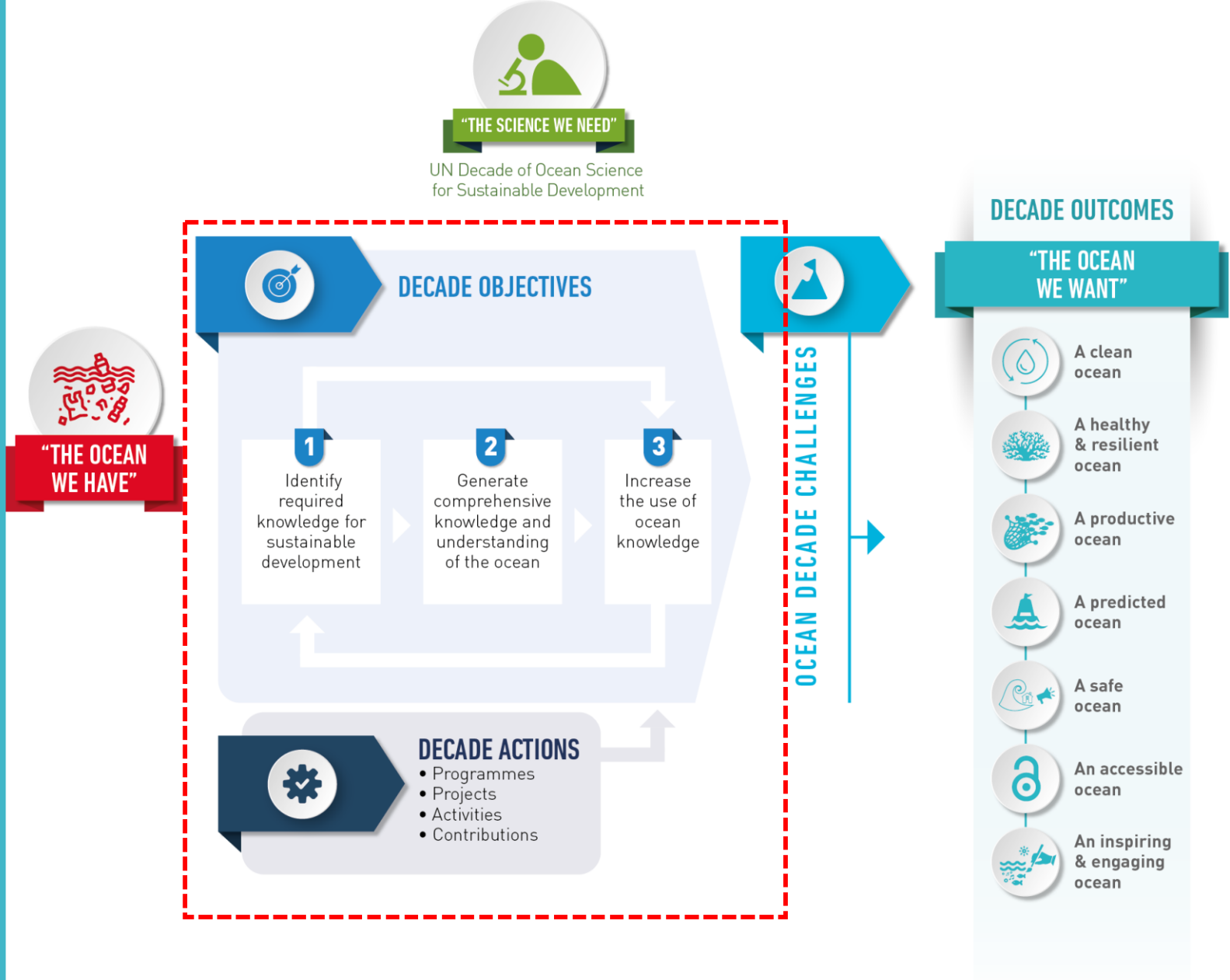
The science we need for the ocean we want

Mission

Transformative ocean science solutions for sustainable development, connecting people and our ocean.



Objectives and Actions of the Ocean Decade





The motivation for an Ocean Decade – regional Arctic process

“harvest the momentum of the Ocean Decade to rally global scientific and societal capacities around the regions pressing challenges and opportunities”

The Arctic process answers two questions

- 1) What are the **BARRIERS** that hinder progress towards achieving the Societal Outcomes of the Ocean Decade in the region?
- 2) What transformative ocean science **SOLUTIONS** will help overcome these barriers and how could they be implemented throughout the Ocean Decade?



Who is behind?

The International Task Force

Role = Int. advis. committee and review panel

- **AMAP** (Arctic Monitoring and Assessment Programme). Represented by Jan Rene Larsen / Craig Lee
- **ArcticNet** (Canadian Network of Centres of Excellence). Represented by Jackie Dawson
- **AOOS** (Alaska Ocean Observing System). Represented by Molly McCammon
- **APECS** (Association of Polar Early Career Scientists). Represented by Anna Gebruk
- **DCMR** (Danish Centre for Marine Research) who organizes and lead the process. Represented by Colin Stedmon, Steffen Olsen, Karen Edelvang and Christian Riisager-Simonsen
- **DPS** (Danish Polar Secretariat at the Agency for Science and Higher Education). Represented by Frej Sorento Dichmann
- **IASC** (International Arctic Science Committee). Represented by Lee Cooper
- **ICES** (International Council for the Exploration of the Seas) represented by Julie Kellner
- **IMO** (International Maritime Organization). Represented by Sascha Pristrom Goal-based-Standards (GBS) Implementation Officer in the Maritime Safety Division, and Loukas Kontogiannis head of marine pollution in the Marine Environment Protection Division
- **IOC UNESCO**, who plans the Ocean Decade. Represented by Henrik Enevoldsen and Marie-Elaine Boivin
- **Kawerak Marine Program**, who works better inclusion of Indigenous priorities. Represented by Austin Ahmasuk and Adelaine M. Ahmasuk
- **PAME** (Protection of the Arctic Marine Environment Working Group, Arctic Council). Represented by Paula Kankaanpää
- **Research Council of Norway**, who organized the preparatory "Arctic Ocean Decade Policy-Business-Science-Dialogue" in Troms January 2020. Represented by Jon L. Fuglestad

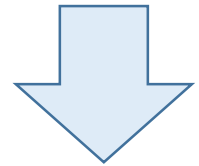


The Danish Center for Marine Research (DCMR)

Role = organisers and coordinators of the Arctic process



DCMR Board



DCMR secretariat



Colin Stedmon

DCMR leader and professor at DTU Aqua

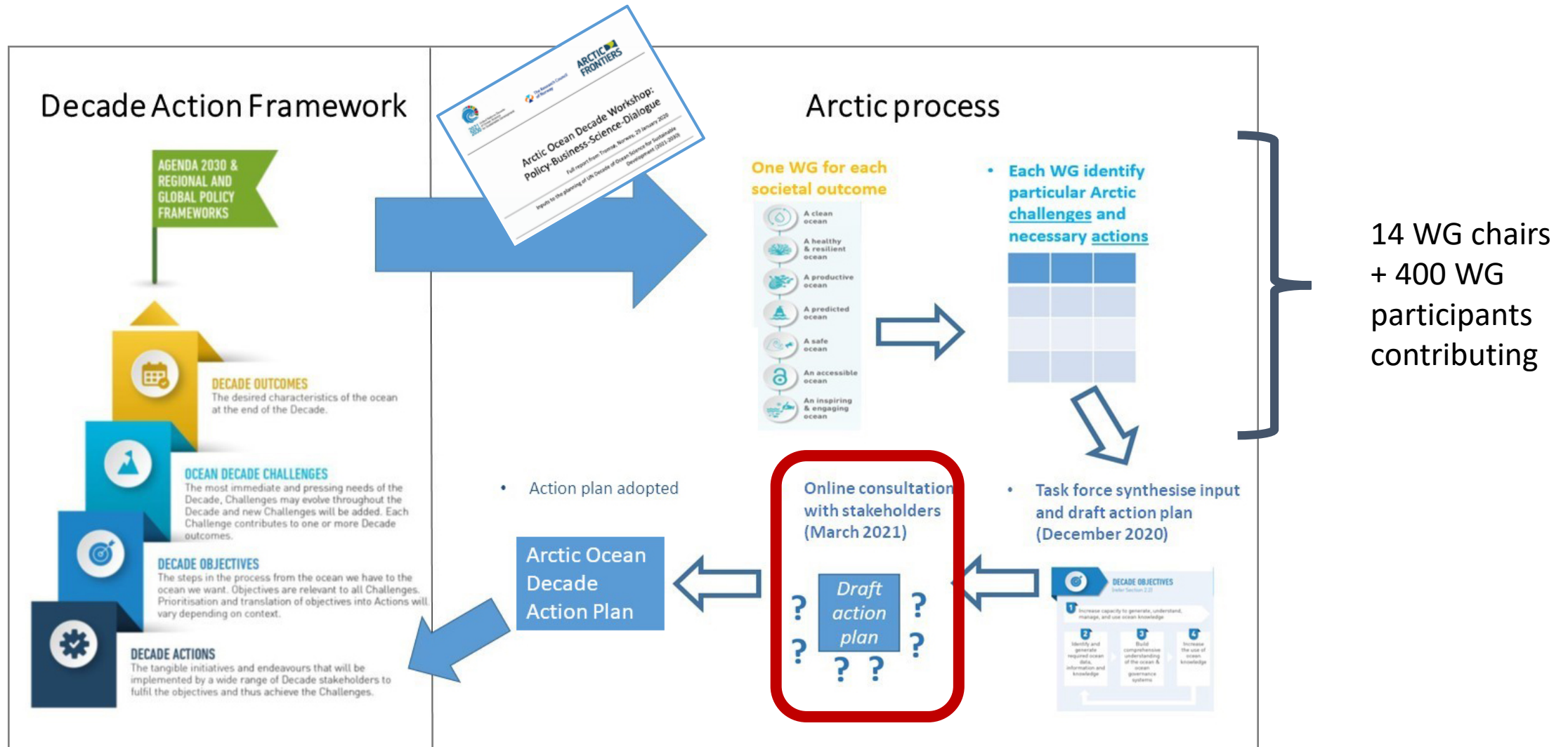


Christian R-S

DCMR and DTU Aqua coordinator (res. & policy)

The approach

- *translating the global agenda into an Arctic context*





Introduction to the content of the *draft* 'Action Plan'

Summary of input from the 7 WGs

Five cross-cutting barriers identified

- 1) **A disconnected Arctic** – in terms of communication and mobility
- 2) **Insufficient means to ensure safety and health** – in terms of understanding and ability to respond to hazards, pollution etc.
- 3) **Incomplete knowledge of the value and distribution of resources** – in terms of mappings, valuation and science-policy support
- 4) **Inadequate management** – in terms of adaptive integrated approaches and supporting env. observation and trends
- 5) **Insufficient support to the region** – in terms of financial, human and institutional capacity



Thematic input – to solutions

RESEARCH Challenges

core scientific areas which should be advanced to enable the production of *transformative ocean science solutions*

ORGANIZATIONAL challenges

issues related to providing and supporting efficient coordination, funding, infrastructure, data management and public support to activities in the region

UPTAKE challenges

options for enhancing and accelerating the societal uptake and benefits of ocean science solutions in the region

Action Plan – Research Solutions/Challenges

Contents

Prologue	
Brief summary of the Arctic process	
The 'Ocean Decade – Arctic Action Plan'	
The target group	
The scope of the Plan	
The Action Plan	
The need for an Ocean Decade - Arctic Action Plan	
Identified key cross-cutting barriers to overcome	
Barrier 1: A disconnected Arctic	
Barrier 2: Insufficient means to ensure safety and health in the Arctic	
Barrier 3: Inadequate knowledge of the value and distribution of resources	
Barrier 4: Inadequate management of Arctic marine ecosystems	
Barrier 5: Inadequate support to the Arctic region	
The Arctic Action Plan	
Research challenges – to achieve transformative ocean science solutions	
Organisational challenges – for achieving high impact science in the region	
Uptake challenges – to enhance societal benefit of ocean science in the Arctic	
Annex	
A) The Arctic Action Plan development process	
B) Existing and planned activities and initiatives that address the Action Plan	

Solution 1: Provide the Arctic region with a detailed open access inventory

- Mapping and identification of natural capital and its value
- Identification of Arctic risks and ways to manage it

Solution 2: Understand the core Arctic climate and ecosystem dynamics

- Ocean-climate nexus and ecosystem dynamics
- Impacts of anthropogenic pressures

Solution 3: Observe the state and trends of Arctic environments in near-real time supported by information services tailored to the needs of communities, science, management and industry

- Integrated and sustained pan-Arctic observation covering the environmental trends, pressures, human activities

Solution 4: Predict and forecast Arctic ecosystem and climate dynamics

- Portfolio of tools

Action Plan – Organizational Challenges

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- 1. Connecting the Arctic**
- 2. Establishing large-scale sustained internationally co-funded programmes**
- 3. Collaborating and coordinating ongoing and future Arctic research, management and observation programmes**
- 4. Collaborating on creating and maintaining joint open data sharing platforms**
- 5. Co-designing and producing actions linking across local, national and regional communities**
- 6. Collaborating with key stakeholders throughout the Arctic on increasing global awareness of Arctic issues and ocean literacy in the region**
- 7. Developing technology to improve temporal and geographical coverage of multidisciplinary observation programs in the region**

Action Plan – Uptake Challenges

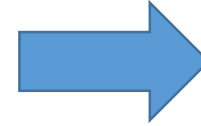
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- 1. Developing the information services necessary for safe navigation**
- 2. Developing Search And Rescue (SAR) and Oil Spill Response (OSR) capacity**
- 3. Coordinated management and response to risks and disasters**
- 4. Managing the marine and coastal environments through an integrated framework**
- 5. Managing vulnerable habitats or threatened species through designation of marine protected areas**
- 6. Managing the marine and coastal areas with adequate enforcement measures**
- 7. Collaborating with key industry stakeholders and governments to create an Arctic-Specific Corporate Social Responsibility (CSR) program**

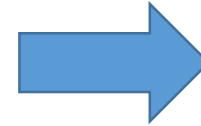
The Plan does not

- ...showcase all the actors presently working in the region



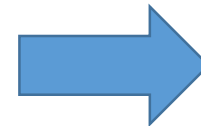
Add your project to
the annex NOW

- ...list good examples and resources to build on



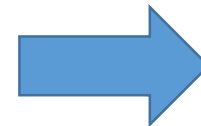
You can do that in the
annex NOW

- ...represent a roadmap for the next phases following the launch



We are working on it
– join the discussion!

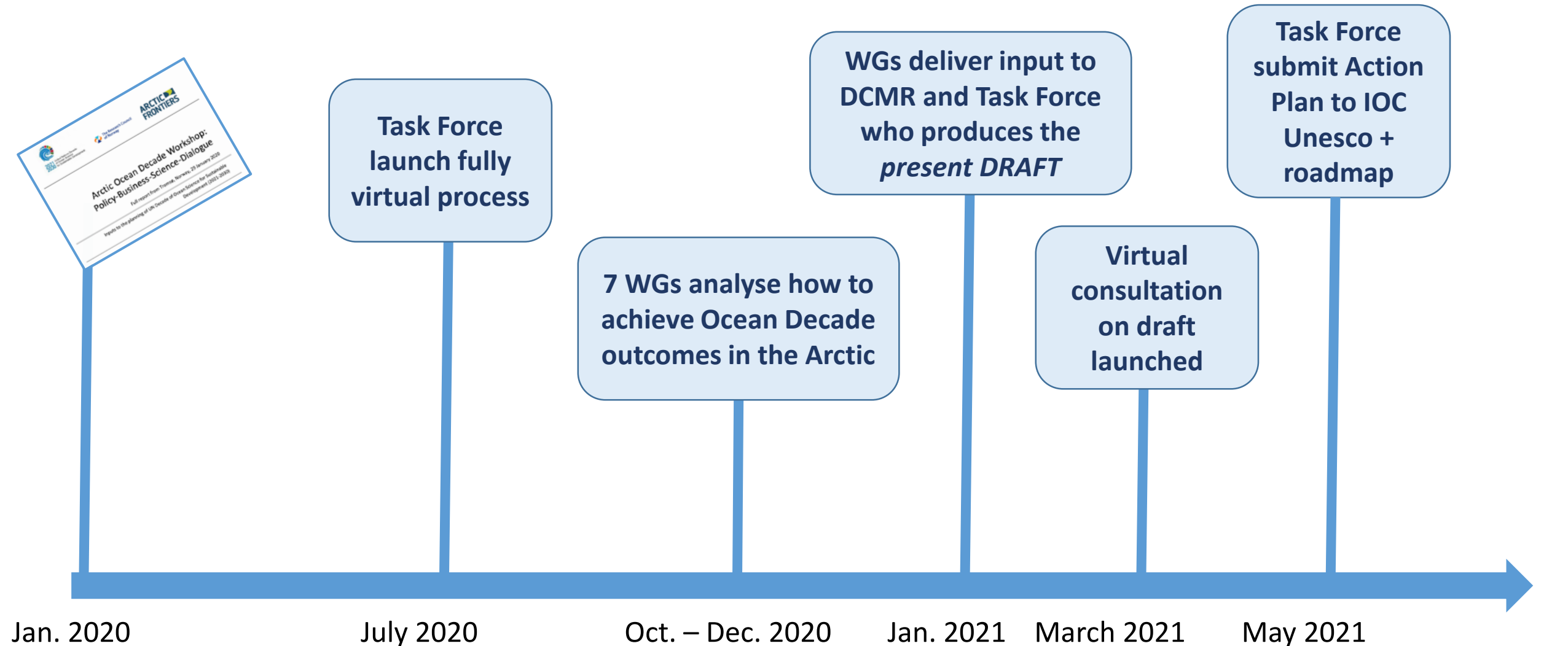
- ...list actors who have committed to support it



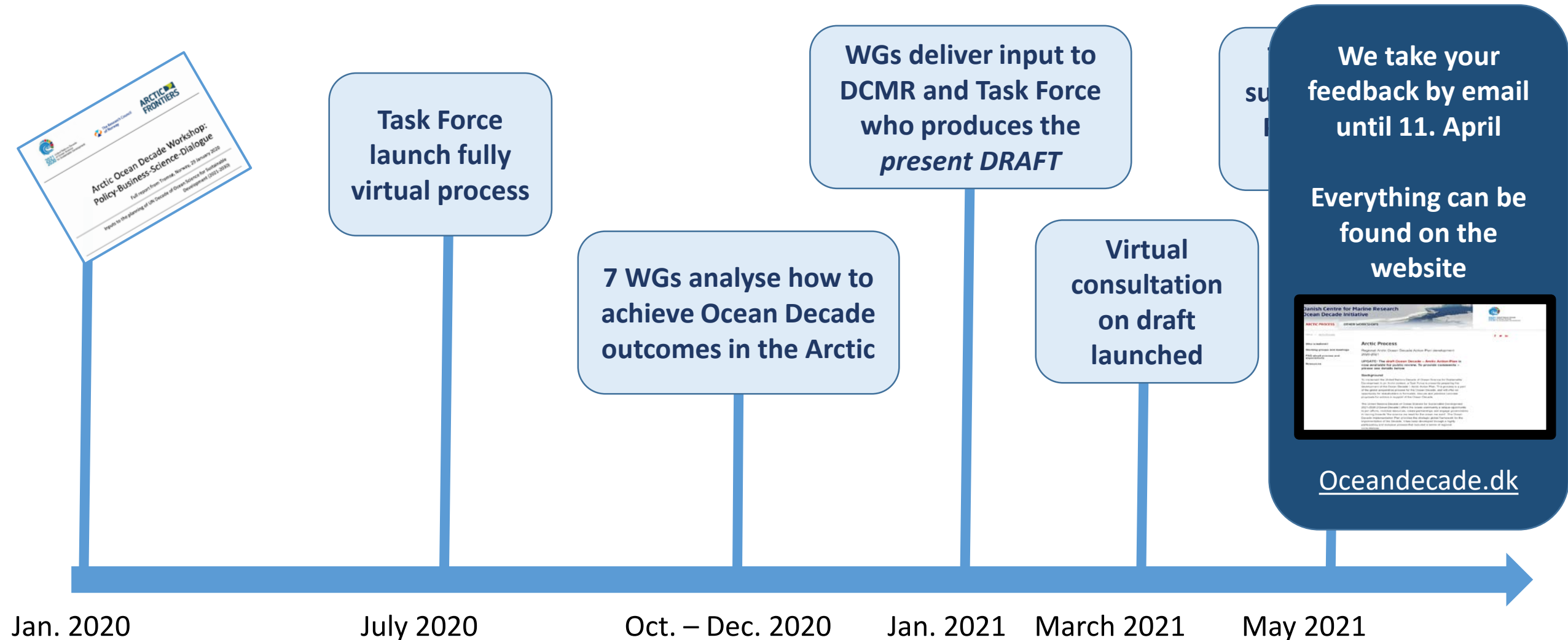
People want to see the
quality of the plan

– but a lot of interest so far

Timeline for the Arctic Ocean Decade process



Timeline for the Arctic Ocean Decade process



Thank you for your attention

FARO should have input

www.oceandecade.dk

- Draft action plan
- Detailed presentation
- Recorded presentation

Contact info: dch@danskhavforskning.net