

Public Sector Challenges in Developing Ocean Economy and Governance

CBS Ocean Economy, Governance and Growth
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Outline

Introduction

- The DMA in brief
- The challenge

Ocean Economy

Ocean Governance

The Danish path

Conclusion

Danish Maritime Authority – DMA

An authority within the Ministry of Industry, Business and Financial Affairs

DMA mission

- To promote health and safety on clean seas and to effectively strengthen the competitiveness of and employment in the maritime industries

DMA vision

- Denmark is to be a leading maritime nation, setting the direction for future quality shipping

Perspectives – proactivity and quality

- National
- EU
- International

Increasingly oriented towards the Maritime Cluster

- Marine tasks on its way – Ocean Economy!

The challenge

Growing world population

- Rising income
- Food
- Resources in general

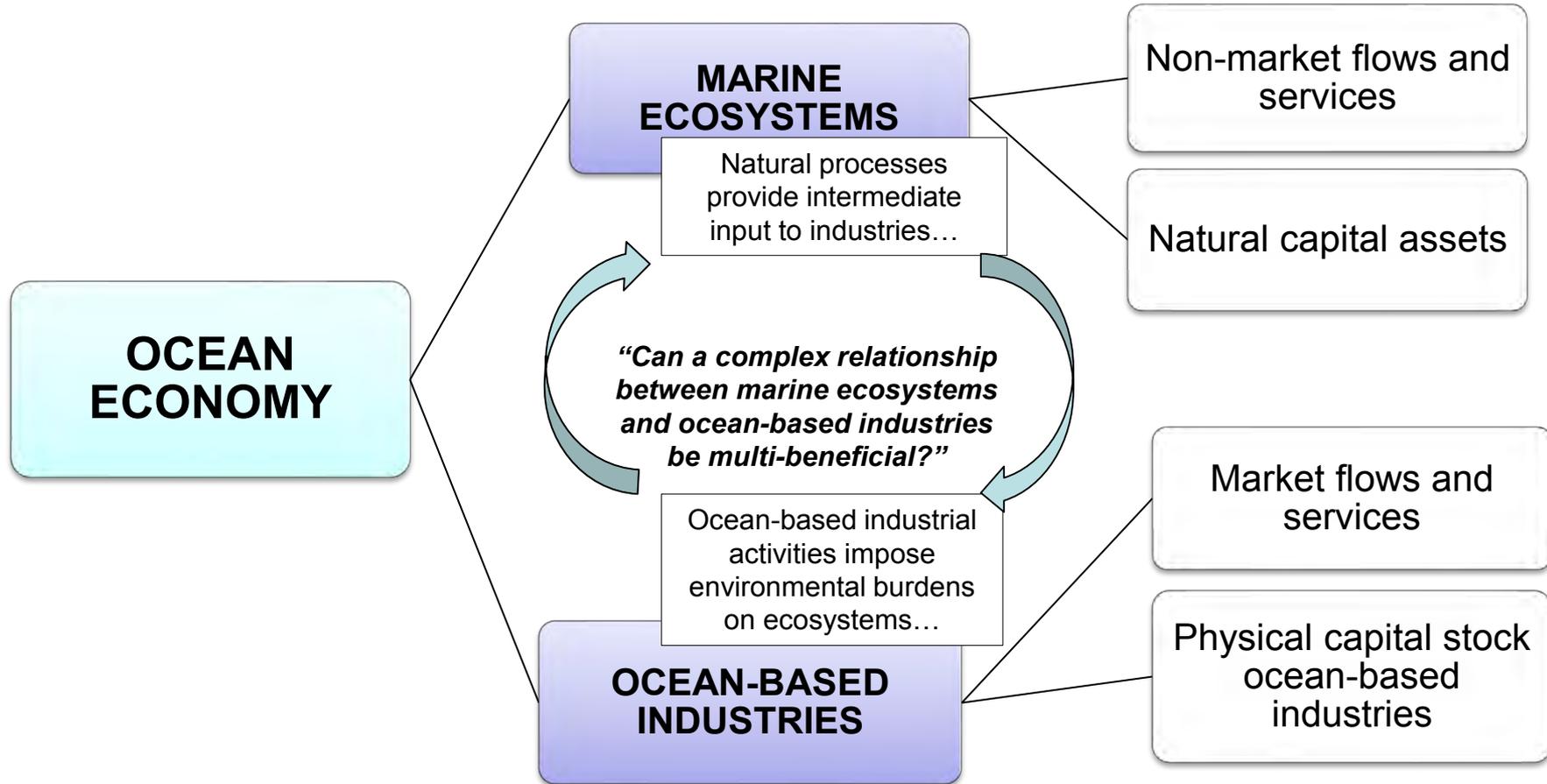
The climate

The environment

The UN Sustainable Development Goals

- The 2030 agenda
- The oceans must contribute
- Call for action by all societal actors, including business

Ocean Economy*



* OECD and Nynne Marie Bech

Ocean industries according to the OECD

Established

- Capture fishing
- Seafood processing
- Shipping
- Ports
- Shipbuilding and repairs
- Offshore oil and gas (shallow waters)
- Marine manufacturing and construction
- Marine and coastal tourism
- Marine business services
- Marine R&D and education
- Dredging

Emerging

- Marine aquaculture
- Deep- and ultra-deep water oil and gas
- Offshore wind energy
- Ocean renewable energy
- Marine and seabed mining
- Maritime safety and surveillance
- Marine biotechnology
- High-tech marine products and services
- Others, i.e. Carbon Capture and Storage (CCS)

Cross fertilisation between industries

- In general, growth potentials outperforming other industries
- Research, development and innovation a prerequisite

Value added by ocean-based industries in 2010 (OECD)

- Offshore oil and gas 34 %
- Marine and coastal tourism 26 %
- Port activities 13 %
- Marine equipment 11 %
- Industrial fish processing 5 %
- Water transport 5 %
- Shipbuilding and repairs 4 %
- Industrial capture fisheries 1 %
- Industrial marine aquaculture < 1 %

Ocean industries

Development of existing and new markets

- Focus on interdependencies
- Incremental and transformative technology development
- New business models
- New partnerships
- A predictable, stable and transformative framework is needed

But GOC*'s five interconnected drivers of ocean decline; focus beyond EEZ

- Rising demand for resources
- Technological advances
- Decline in fish stocks
- Climate change, biodiversity and habitat loss
- Weak high-sea governance

However according to GOC

More innovation is needed to raise productivity, while protecting ecological integrity

***The Global Ocean Commission 2014**

Marine ECO systems

Fragile systems

Cumulative impacts that count

There is a backlog of ocean science

- Ocean observation is a cornerstone of ocean science
- Data sharing
- Compatibility of data

A free good from the perspective of

- Industries in general
- Agriculture
- Households

Balancing mechanisms is needed

- The issue of governance

Governance

A widely used – and abused – concept

- The process of decision making and the process of implementation
- Public authorities, organisations as well as private companies
- Window-dressing or not!

A maritime point of departure*

- Participation
- Rule of law
- Transparency
- Responsiveness
- Consensus-oriented
- Equitable and inclusive
- Effectiveness and efficiency
- Accountability

Maritime industries and international governance

UNCLOS

- The umbrella convention

Established industries

- Well-covered, i.e.
 - IMO
 - FAO and RFMOs*
- Moving ahead with new challenges and technologies
- International and regional regimes

Emerging industries in general not covered

- Integrate into existing regulation?
- Establish new or enhance existing bodies and regulation?
 - The International Sea Bed Authority

* Regional Fisheries Management Organisations (RFMOs)

Marine ECO systems and international governance

UNCLOS

- The umbrella organisation

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

International Union For Conservation of Nature (IUCN)

Census of Marine Life

Convention on Biological Diversity

UN legally binding instrument to conserve and sustainably use marine biological diversity of areas beyond national borders; under development

- Use of marine genetic resources
- Environmental Impact Assessment (EIA)
- Marine Protected Areas (MPA) in the high seas

Initiatives on Ocean Economy, e.g.

Country-based and regional initiatives

- (Integrated) Marine/maritime strategies
- Cluster development
- Maritime Spatial Planning (MSP)
- Research and development
- Mainly developed and emergent countries

OECD "Fostering Innovation in the Ocean Economy"

1. Exploring the role of enabling technologies/innovations
2. Emerging patterns of collaboration in marine and maritime R&D
3. Extend frontiers for the use of economic valuation, analysis and tools
 - The OECD Ocean Economy Database
 - Socio-economic value of ocean observations
 - Satellite accounts for the seas
4. The role of policy mix and its impact on boosting innovation

Basic considerations on regulation

Goal-based and/or prescriptive

Enforcement

- Risk-based
- Targeting the bad guys
- Policing

Compliance

- Quality of regulation and enforcement

Regulation and technology dilemmas

- Based on existing technology
- Based on development of new technology
- Grand fathering of "immature and promising" technology

Impacts

- A precautionary principle
- Best available technologies!

Regulation, point of departure*

Pathologic

- Buccaneers' safe haven
- Make it look right
- What book?

Bureaucratic

- Compliance with rules
- Doing things right
- Going by the book

Generative

- Compliance with the purpose of the rules
- Doing the right things right
- Promoting self regulation and responsibility
- Best practice and evaluation of effectiveness

Free interpret. of Prof. Ron Westrum

Paths for regulation

Develop international instruments

- Finding the right balance between national, regional and international regulation
- Finding the right balance between sectorial and cross-sectorial regulation
- Enforcement essential, national as well as international
- Level playing field for ocean industries

Scientific evidence and developments

- Built on
- Push for

Foster technology development

- Public sector incentives, e.g. de-risking, cross-sectorial pushes and infrastructures

A goal-based approach – generative

Your problem is my problem!

Responsible maritime industries (CSR)

A partnership approach – UN development goal no. 17!

A coherent maritime strategy*

- The Danish Government, July 2010

The EU Integrated Maritime Policy as driver

- The seabed
- The water column
- The water surface

Great development perspectives for maritime and marine industries

- Sustainability

Coordination the road forward

- Between authorities
- Maritime Spatial Planning

Assessment of the strategy

- Limited impact

Maritime Spatial Planning (MSP)

MSP covering Denmark's 100,000+ km² sea area

- New Danish act on MSP, July 2016
- Implements the EU MSP directive
- DMA tasked with the implementation – final plan by March 2021, at the latest

To promote economic growth through sustainable use of sea areas

- Energy; transport; fishing and aquaculture; and extraction of raw materials
- Co-existence of human activities with environmental and climate thresholds
- Close collaboration with stakeholders, both nationally and internationally

EU and international cooperation

- Coherence and coordination in the marine regions concerned
- Regulation, enforcement and compliance
- Responsible maritime industries

Data

- Organisation of best available data for planning and decision purposes
- Exchange of data as part of the - ongoing - planning and decision process
- The DMA has an open data approach; AIS data up to now

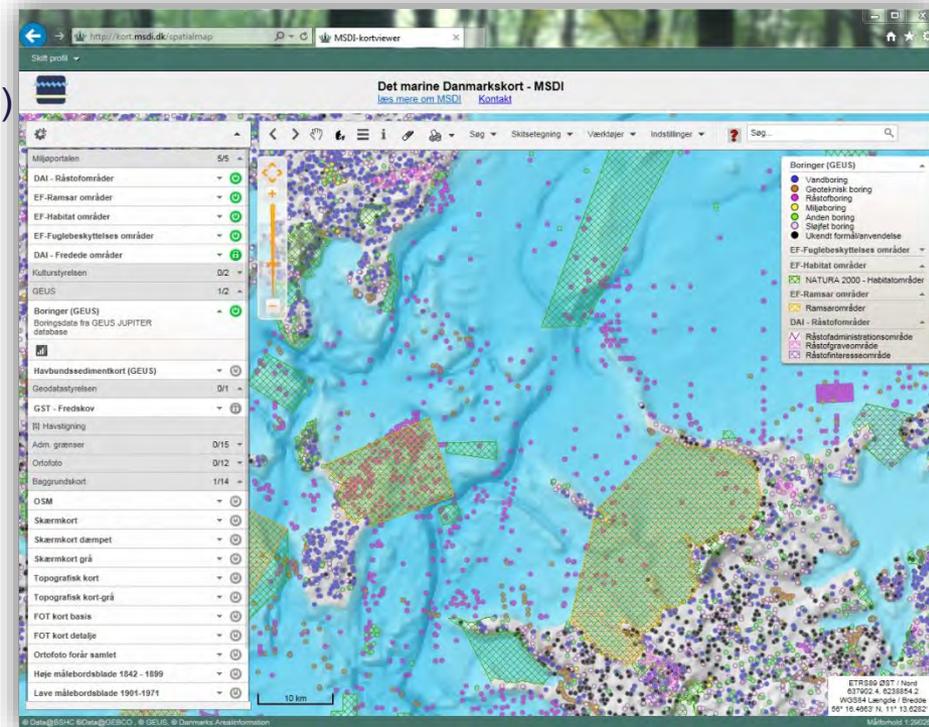
Maritime Spatial Data Infrastructure – MSDI

Collaboration among authorities to generate a shared administrative platform

- Accessible to
 - Other public authorities
 - Research, private and NGOs (aim)

Data

- Aquaculture
- Structures at sea
- Structures for energy
- Fishing
- Leisure
- Ports
- Hydrographical
- Mineral extraction
-



Operable in late 2017 for authorities

The Maritime Strategy Team, May 2017

”Denmark – a Global Maritime Power hub” as aim

The marine part

- New growth potentials at sea should be exploited
 - Emergent ocean industries not the primary focus
- Partnerships between authorities, universities and companies
- A pragmatic approach to governance aiming at sustainable development

Next step

- The Government will take a position on the recommendations and draw up an action plan

Conclusions

We must reap the potentials of the Ocean Economy

- Development of existing and emerging maritime industries – market focus

Focus on enablers

- Marine eco systems
- Scientific evidence to preserve and exploit the potentials of marine ecosystems
- Development of technology, skills and business models
- Public sector incentives, e.g. de-risking, cross-sectorial pushes and infrastructures

Maritime governance needed

- Work at national, regional and international level
- A generative/responsive regulation
- Enforcement must fit with compliance
- Regulation and industry promotion are two sides of the same coin
 - Especially for emergent industries

A common possibility/challenge needs partnerships

- Your problem is my problem
- Respect of different roles – a delicate balance

Thank you for your attention

