

11-12 October 2017 **Brussels Belgium**



Maritime Spatial Planning Conference on Blue Growth
How to plan for a Sustainable Blue Economy?

#MSP4BG



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES



A lighthouse with a red and white striped tower stands on a rocky island. The sea is turbulent, with white waves crashing against the shore. The sky is overcast and grey.

Technical Study: Assessing future demands of Blue Economy

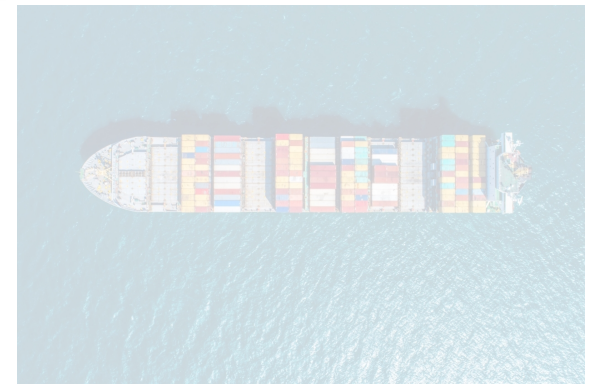
General introduction and encouraging the discussions

Technical Study: Assessing future demands of Blue Economy

visions for maritime space
(national as well as sea-basin wide)

future **spatial demands** in
key maritime sectors

indicators on how MSP
processes and plans cater for Blue
Growth



Nine sectors are being object of analysis

- **Shipping & Ports**
 - **Offshore oil & gas**
 - **Fishing**
 - **Offshore wind**
 - **Coastal and maritime tourism**
 - **Marine aquaculture**
 - **Pipelines & cables**
 - **Ocean energy (tidal and wave)**
 - **Marine aggregates and marine mining**
- } **Future trends**
Spatial implications
How considered in MSP processes



Key questions that have been studied

- ✓ *Which sectors are and will be of relevance in which country ?*
- ✓ *What are the specific spatial characteristics of each sector ?*
- ✓ *Which planning criteria exist today?*
- ✓ *What are the future trends? Which of them may have spatial implications – what may change?*
- ✓ *Who are key actors & projects ?*

Shipping and ports

- Maritime transport accounts for almost 75% of the externally traded goods, whilst 400 million passengers pass through European ports on a yearly basis. 60% of total maritime transport of goods within Europe are transported via short sea shipping. It is key to anticipate which ports will be frequented by what kind of ships – and plan port infrastructure

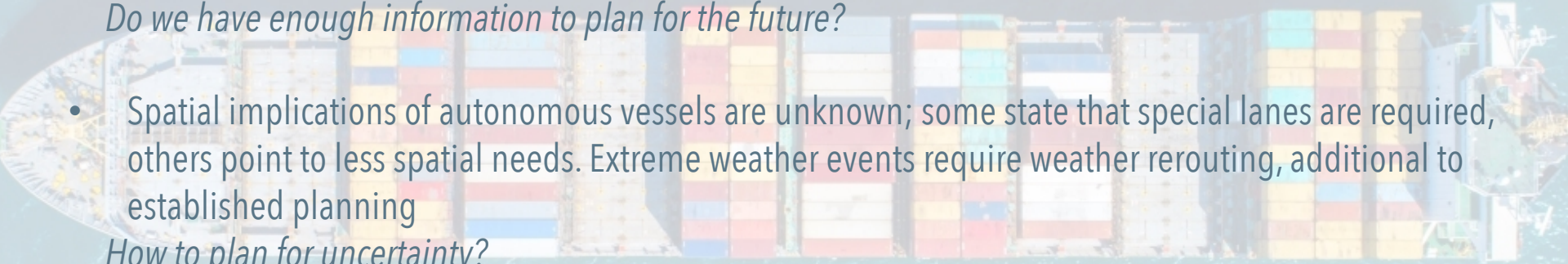
Do we have enough information to plan for the future?

- Spatial implications of autonomous vessels are unknown; some state that special lanes are required, others point to less spatial needs. Extreme weather events require weather rerouting, additional to established planning

How to plan for uncertainty?

- Opening up of the Arctic Route during the summer may alter sea traffic patterns

What MSP implications to expect exactly?



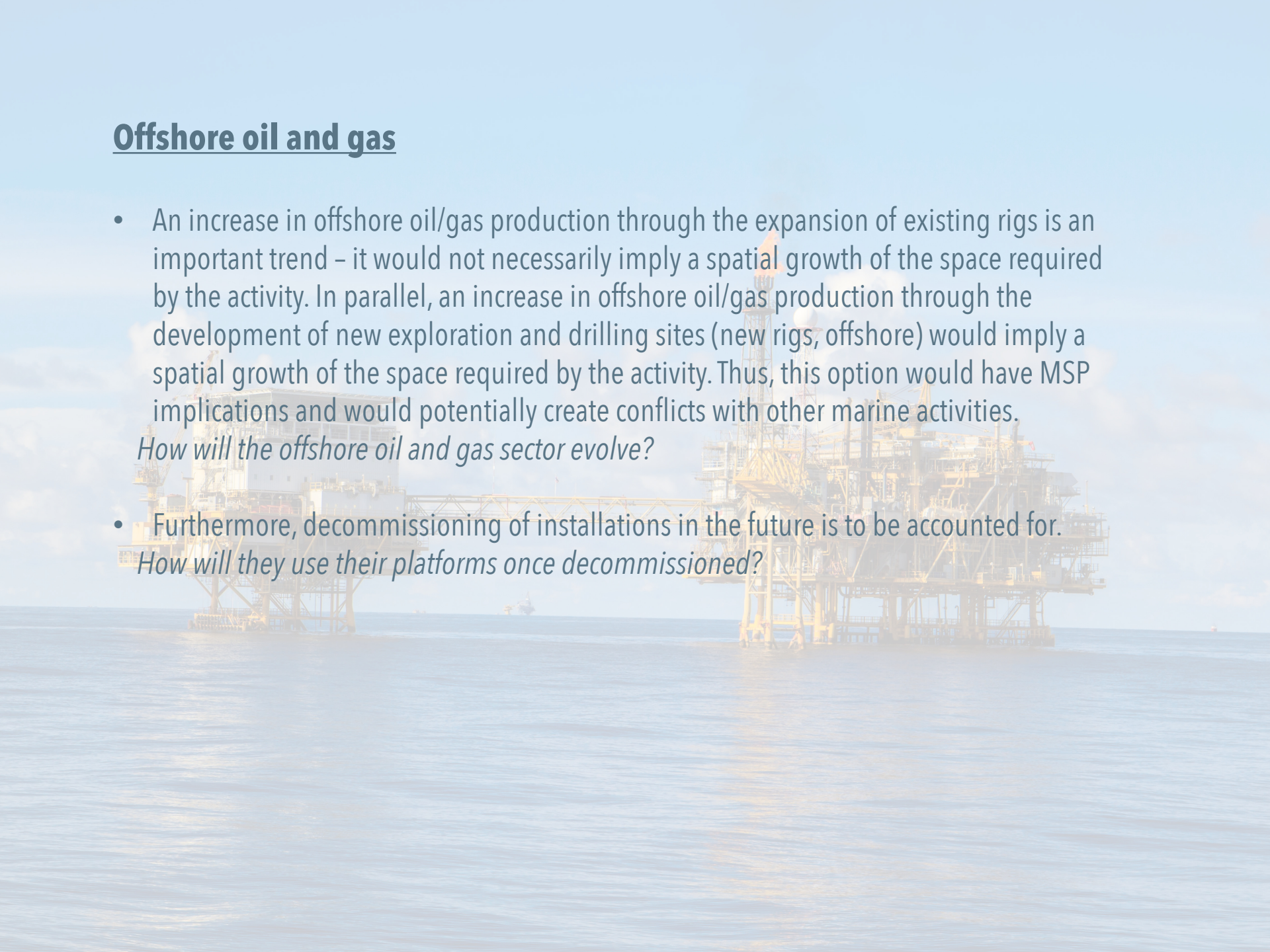
Offshore oil and gas

- An increase in offshore oil/gas production through the expansion of existing rigs is an important trend – it would not necessarily imply a spatial growth of the space required by the activity. In parallel, an increase in offshore oil/gas production through the development of new exploration and drilling sites (new rigs, offshore) would imply a spatial growth of the space required by the activity. Thus, this option would have MSP implications and would potentially create conflicts with other marine activities.

How will the offshore oil and gas sector evolve?

- Furthermore, decommissioning of installations in the future is to be accounted for.

How will they use their platforms once decommissioned?



Fishing

- Historically, fishing is a spatial claim with the longest tradition in our seas. The fishing sector is sometimes being displaced by other sea uses (especially near-shore areas).

How can MSP ensure that offshore windmill farms, large marine constructions, NATURA 2000 areas, transport routes of commercial shipping, pipelines, cables, recreational activities, aquaculture farms, etc. do not end up displacing fishing activities?

- Being an activity which is mobile, most fishing vessels have a geographical location system available which informs about the whereabouts of their activity. However, not all types of vessels are required to have one of such systems (less for those illegal fishing vessels).

How can MSP ensure all vessels inform or take on board a location system to know about their positions?

Offshore wind

- Offshore wind capacity has significantly increased since 2000. By 2020, the offshore wind total installed capacity is expected to be 23 GW, and up to 64GW by 2030

How much space is involved in accommodating these ambitions?

- Offshore wind turbines become larger (8-10MW) and projects move away from the shore into deeper waters, whilst grid connectivity

What are the spatial implications of these techno-economic trends?

- Offshore wind offers opportunities for multi-use (e.g. aquaculture, recreation), to promote economic and reduce environmental impacts

What spatial overlap of offshore wind energy with other maritime activities can be foreseen?

Coastal and maritime tourism

- Ongoing growth of coastal tourism has implications on new infrastructure and ports – and changes land-sea interaction too

What are the maritime spatial implications of these developments?

- Environmental impacts as a two-way process: tourism (e.g. waste, water use, congestion) impacts other sectors and other sectors (e.g. ships leaking oil) impact tourism

What examples of positive feedback loops exist?

- Coastal defence is of prime importance to counter coastal erosion and to enable tourism – but flooding plans also need to be accommodated

What experiences with coastal defence and tourism has been gained?

Marine Aquaculture

- Aquaculture is a growing sector and the open oceans are seen as one of the most likely areas for large-scale expansion.

How can we ensure that existing/new aquaculture facilities do not enter into spatial conflict with other existing marine uses (recreational, fishing, tourism, etc.)?

- MSP is being recognised as one avenue for advancing sustainable aquaculture development worldwide.

How could the aquaculture sector co-evolve with other marine uses? (i.e offshore wind energy sector)?

- Environmental physical factors (such as water temperature, ocean currents, sunlight, and food and nutrient availability) are known to have a direct effect on the growth of aquaculture species.

How can we ensure the marine aquaculture sector's resilience toward new potential physical changes that might happen as response to climate variations?

Pipelines and Cables

- Sub-sea cables are becoming increasingly important in light of growing global communication needs (97% go per fibre optic submarine cables) as well as increasing need for grid connectivity (offshore wind). Pipelines are of increasing importance in light of EU energy imports (energy security).

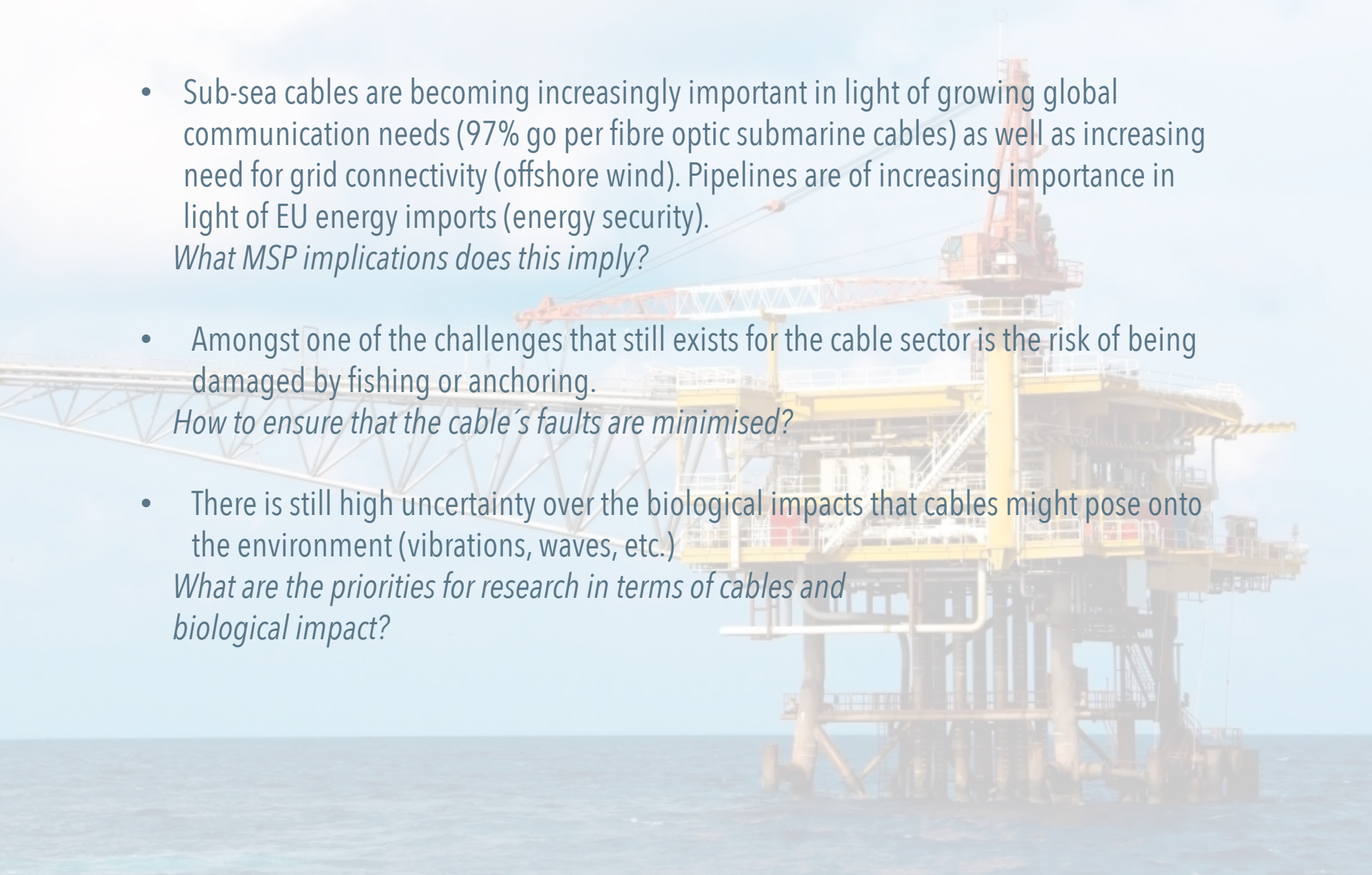
What MSP implications does this imply?

- Amongst one of the challenges that still exists for the cable sector is the risk of being damaged by fishing or anchoring.

How to ensure that the cable's faults are minimised?

- There is still high uncertainty over the biological impacts that cables might pose onto the environment (vibrations, waves, etc.)

What are the priorities for research in terms of cables and biological impact?



Ocean Energy (Tidal and Wave)

- Tidal and wave are place-driven – and depend on the resource potential of a given place

How to accommodate/prioritise this sector in the future – once breakthroughs have led to upscaling?

- Each renewable energy source requires specific installations and different spatial layouts – with significant consenting and licensing preparations as a consequence

How to overcome challenges in the area of consenting and licensing?

- Tidal and wave are emerging sectors which rely heavily on others sectors for creating synergies.

How can MSP help to create such synergies?

Marine aggregates and Marine Mining

- Countries are turning their attention to the ocean in order to ensure that future demands for raw materials can be met.
Which direction will the marine mining sector take? What are the opportunities and risks?
- The increasing need for protection of our shorelines will require from the extraction of materials to be deposited at the coastlines as protective walls.
How will these new necessities and other ones related to climate change be tackled by marine spatial plans?

Some patterns and messages

- Sector characteristics lead to an extra-ordinary diversity of spatial implications (linear, place-based), temporal characteristics, water depth, mobility and land-sea interaction
- Expanding and emerging activities have potentially stronger MSP implications than mature activities.
- The ability to forecast developments differs significantly between sectors – and so does the level of sophistication and robustness of such prognoses



Cross-cutting issues

- MSP aims for the allocation of space in a rational manner which minimises conflicts of interest and maximises synergies across sectors.
How can we ensure a good management of cumulative impacts over space and time?
- MSP enables information gaps to be identified and future research to be prioritised.
What kind of information are we still missing? Over what blue-sectors?
- *How could we encourage private business to provide MSP practitioners with information?*

Key questions for the mini-conversations

1. *What are the most important trends ahead?*
2. *What are the most important implications for MSP?*
3. *What recommendations from this sector for MSP?*





**Thank you very much
for your attention
and enjoy your mini conversations**

*Jan Maarten de Vet, MSP Platform
Javier Fernandez Lopez, MSP Platform*

**Maritime Spatial Planning Conference On Blue Growth
Brussels - 11 & 12 October 2017**



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

