

**Connecting  
— Seas —**

*NorthSEE – Baltic LINES  
MSP conference*

# Conflicts and Synergies in MSP an Introduction

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EUROPEAN  
REGIONAL  
DEVELOPMENT  
FUND

## European Commission Technical Study EU MSP Platform 2018

### Adressing conflicting spatial demands in MSP

- Focus on conflicts **between two sectors**
- Focus on **spatial conflicts**
- Designed to deliver **hands-on results for MSP planners**:
  - **9 conflict fiches** incl. stories of real-life examples practical solutions
  - **9 one-page summaries**
  - A detailed **study report** (to be published)

→ **download from** [www.msp-platform.eu](http://www.msp-platform.eu)

## Multi-Use in European Seas (MUSES) H2020 Project (2016-2018)

- **Joint Analytical Framework**
  - Definition of multi-use
  - MU Typology
  - Drivers, Added Values, Barriers, Negative Impacts => DABIs
- **5 Sea Basin Analysis**
- **7 Case studies**
- **Action Plan**
  - Existing Cases / Future Potential
  - DABIs
  - Specific Actions

-> **download from** [www.muses-project.eu](http://www.muses-project.eu)

# Conflict Resolution ...Pre- and Post MSP Setting






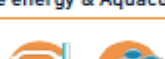



- MSP understood as a strategic, **forward-looking** process
- MSP should allocate space in an anticipatory manner:  
**conflicts no longer dealt with case by case,**  
but **prevented** by strategic solutions
- MSP never starts with blank canvas:  
**1<sup>st</sup> MSPs often deal with legacy effects** (i.e. existing licenses)  
=> need for solutions that **mitigate** such conflicts  
=> also relevant in MSP Implementation Phase
- **Overlaps and cyclical** – one may follow the other.
- **Prevention requires foresight**, e.g. of trends and pressures

# All about conflicts ?

- Conflict => disagreement or incompatibilities
- Not a 'count' or critique of conflicts
- Does not imply that sectors are always in conflict with each other, nor that conflicts always escalate
- Aware that conflicts can become opportunities => for defining synergies or options for co-locations...

# Nine spatial conflicts – nine combinations ....

|                                | Maritime tourism | Offshore wind | Cables and pipelines | Defence* | Maritime transport | Commercial fisheries | Aquaculture | Area-based marine conservation |
|--------------------------------|------------------|---------------|----------------------|----------|--------------------|----------------------|-------------|--------------------------------|
| Maritime tourism               |                  | ✗             |                      |          |                    |                      | ✗           |                                |
| Offshore wind                  | ✗                |               |                      |          | ✗                  |                      |             | ✗                              |
| Cables and pipelines           |                  |               |                      |          | ✗                  | ✗                    |             |                                |
| Defence*                       |                  |               |                      |          |                    |                      |             |                                |
| Maritime transport             |                  | ✗             | ✗                    |          |                    |                      |             | ✗                              |
| Commercial fisheries           |                  |               | ✗                    |          |                    |                      |             | ✗                              |
| Aquaculture                    | ✗                |               |                      |          |                    |                      |             |                                |
| Area-based marine conservation |                  | ✗             |                      |          | ✗                  | ✗                    |             |                                |

| MU  | Eastern Atlantic | North Sea | Baltic Sea | Mediterranean Sea | Black Sea |
|---|------------------|-----------|------------|-------------------|-----------|
| <br>OWF & Fisheries                              |                  | ✓         |            |                   |           |
| <br>OWF & Aquaculture                            |                  | ✓         | ✓          | ✓                 |           |
| <br>OWF & Tourism                                |                  | ✓         | ✓          |                   |           |
| <br>OWF & Wave energy                            |                  | ✓         |            |                   |           |
| <br>Wave energy & Aquaculture                    | ✓                | ✓         |            | ✓                 |           |
| <br>Tourism & Aquaculture                        | ✓                |           |            | ✓                 |           |
| <br>Tourism & Fisheries                        | ✓                |           |            | ✓                 | ✓         |
| <br>Tourism & UCH & Environmental protection   | ✓                |           | ✓          | ✓                 | ✓         |
| <br>Re-use of O&G decommissioned installations |                  | ✓         |            | ✓                 |           |

## Nine spatial conflicts ....

1. Tourism vs Offshore Wind
2. Offshore Wind vs Fisheries
3. Aquaculture vs Tourism
4. Fisheries vs Conservation

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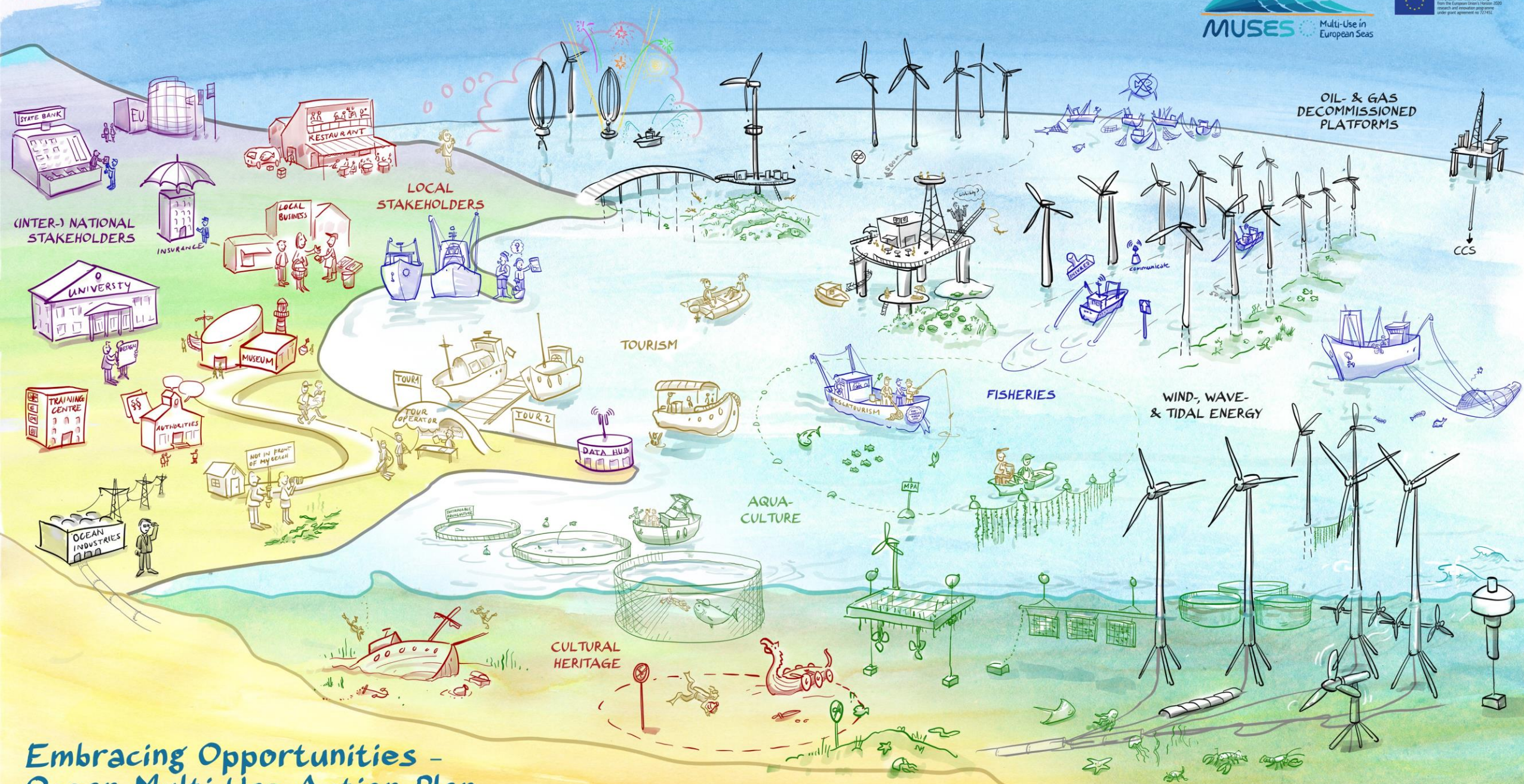
5. Cables vs Fisheries
6. Military vs other uses
7. Transport vs marine conservation
8. Transport vs Offshore Wind
9. Offshore Wind vs Conservation

## Nine combinations ....

1. Offshore Wind & Tourism
2. Offshore Wind & Fisheries
3. Tourism & Aquaculture
4. Tourism, Fisheries & Env Protection

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5. Tourism, UCH & Env Protection
6. Offshore Wind & Aquaculture
7. Oil&Gas Decommissioning & Repurposing
8. Offshore Wave & Aquaculture
9. Offshore Wind & Renewable Energy



# Embracing Opportunities - Ocean Multi-Use Action Plan

# Factors influencing the conflict potential of sectors

- Sector **growth**
- **Hard/fixed** vs **soft/fleeting** uses
- All sectors look for **ideal locations**
- Some sectors are more constrained in their locational choice than others = **spatial adaptability?**
- **Nearshore vs offshore**
- Maritime sectors have different **political priority** and socio-economic importance

# Are some sectors more conflict-prone than others?



Offshore Wind? Tourism? Defence? Conservation? Fishery?

- Traditional vs 'Newcomers'
- BUT
- Traditional vs Traditional
  - Newcomer vs Newcomer
- 
- Activity vs Risk



# Origins of spatial conflicts

- Spatial conflicts arise from:
  - **direct competition** over limited space (two sectors interested in the same location)
  - one sector **negatively impacting** on the other, which may or may not be in the same location.

→ A compatibility matrix as a first indication of spatial management needs

|  | Coastal fishery | Gillnet fishery in open sea | Pelagic trawling in open sea | Bottom trawling in open sea | Shipping | Port operations | Dredging | Dumping of dredged material | Yachting | Motorboats and water scooters | Water sports (kite board, windsurfing) | Coastal angling | Recreation at the sea | Scuba diving | Nature tourism, bird watching | Coastal tourism infrastructure | Military training polygons | Coastal observation systems | Cables | Wind parks | Oil extraction | Dumped explosives + chemical weapons | Nature conservation: benthic habitats | Nature conservation: birds | Protection of areas for fish regeneration | Protection of coastal landscapes | Protection of underwater cultural heritage | Protection of coast against erosion |  |
|--|-----------------|-----------------------------|------------------------------|-----------------------------|----------|-----------------|----------|-----------------------------|----------|-------------------------------|--|-----------------|-----------------------|--------------|-------------------------------|--------------------------------|----------------------------|-----------------------------|--------|------------|----------------|--------------------------------------|---------------------------------------|----------------------------|---|----------------------------------|--|-------------------------------------|--|
| Coastal fishery                            | -               | -                           | -                            | -                           | -        |                 |          | •                           | •        | •                             | •                                      |                 | •                     |              |                               |                                |                            |                             |        |            |                | -                                    |                                       |                            |   |                                  |  |                                     |  |
| Gillnet fishery in open sea                | -               | -                           |                              |                             |          |                 |          |                             |          | -                             | -                                      | -               | -                     |              |                               | -                              |                            |                             |        |            |                |                                      |                                       |                            | -   |                                  |  | -                                   |  |
| Pelagic trawling in open sea               | -               |                             |                              |                             |          |                 |          |                             |          | -                             | -                                      | -               | -                     |              |                               | -                              |                            |                             |        |            |                |                                      |                                       |                            |   |                                  |  |                                     |  |
| Bottom trawling in open sea                | -               |                             |                              |                             |          |                 |          |                             |          |                               |  | -               | -                     |              |                               | -                              |                            |                             |        |            |                |                                      |                                       |                            | -   |                                  |  | -                                   |  |
| Shipping                                   |                 |                             |                              |                             |          |                 |          |                             |          | •                             |  | -               | -                     | •            |                               |                                |                            |                             |        |            |                | •                                    | -                                     |                            |   |                                  |  |                                     |  |
| Port operations                            |                 |                             |                              |                             |          |                 |          |                             |          | •                             |  |                 |                       |              |                               |                                |                            |                             |        |            |                |                                      | -                                     |                            |   |                                  |  | •                                   |  |
| Dredging                                   |                 |                             |                              |                             |          |                 |          |                             |          |                               |  | -               | -                     | •            |                               | -                              |                            |                             |        |            |                |                                      |                                       |                            |   |                                  |  | •                                   |  |
| Dumping of dredged material                | •               |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               | -                              |                            |                             |        |            |                | -                                    |                                       |                            | •   |                                  |  |                                     |  |
| Yachting                                   | •               |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                |                                      |                                       |                            |   |                                  |  |                                     |  |
| Motorboats and water scooters              | •               | -                           | -                            | -                           |          |                 |          |                             |          |                               | •                                      | •               | •                     | •            |                               |                                |                            |                             |        |            |                | -                                    |                                       | •                          |   |                                  |  |                                     |  |
| Watersports (kite board, windsurfing)      | •               | -                           | -                            | -                           |          |                 |          |                             |          | •                             |  | •               |                       |              |                               |                                |                            |                             |        |            |                | -                                    |                                       |                            |   |                                  |  |                                     |  |
| Coastal angling                            |                 | -                           | -                            | -                           | -        |                 | -        |                             |          | •                             | •                                      |                 |                       |              |                               |                                |                            |                             |        |            |                | -                                    |                                       |                            |   |                                  |  |                                     |  |
| Recreation at the sea                      | •               | -                           | -                            | -                           | -        |                 | -        |                             |          | •                             |  |                 |                       |              |                               |                                |                            |                             |        |            |                |                                      |                                       |                            |   |                                  |  |                                     |  |
| Scuba diving                               |                 |                             |                              |                             | •        |                 | •        |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                |                                      |                                       |                            |   |                                  | •  |                                     |  |
| Nature tourism, bird watching              |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                | -                                    |                                       |                            |   |                                  |  |                                     |  |
| Coastal tourism infrastructure             |                 | -                           | -                            | -                           |          |                 | -        | -                           |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                | -                                    |                                       |                            |   | •                                | •  |                                     |  |
| Military training polygons                 |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                | •                                    |                                       | •                          |   |                                  |  |                                     |  |
| Coastal observation systems                |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                | •                                    | •                                     | -                          |   |                                  |  |                                     |  |
| Cables                                     |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                |                                      |                                       |                            |   |                                  |  |                                     |  |
| Wind parks                                 |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                |                                      |                                       |                            |   |                                  |  |                                     |  |
| Oil extraction                             |                 |                             |                              |                             | •        |                 |          |                             |          |                               |  |                 |                       |              |                               |                                | •                          | •                           |        |            |                |                                      |                                       | •                          | •   | •                                |  |                                     |  |
| Dumped explosives and chemical weapons     | -               |                             |                              | -                           |          | -               | -        |                             |          | -                             | -                                      | -               | -                     |              | -                             | -                              |                            | -                           |        |            |                |                                      |                                       | -                          | -   | -                                | -  | -                                   |  |
| Nature conservation: benthic habitats      |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                | •                                    | -                                     |                            |   |                                  |  |                                     |  |
| Nature conservation: birds                 |                 |                             |                              |                             |          |                 |          |                             |          | •                             |  |                 |                       |              |                               |                                | •                          |                             |        |            |                | •                                    | -                                     |                            |   |                                  |  |                                     |  |
| Protection of areas for fish regeneration  |                 | -                           | -                            | -                           |          |                 |          | •                           |          |                               |  |                 |                       |              |                               |                                |                            |                             |        |            |                | •                                    | -                                     |                            |   |                                  | •  |                                     |  |
| Protection of coastal landscapes           |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       |              |                               | •                              |                            |                             |        |            | •              | -                                    |                                       |                            |   |                                  |  |                                     |  |
| Protection of underwater cultural heritage |                 |                             |                              |                             |          |                 |          |                             |          |                               |  |                 |                       | •            |                               |                                |                            |                             |        |            |                | -                                    |                                       |                            |   |                                  |  |                                     |  |
| Protection of coast against erosion        |                 | -                           | -                            | -                           |          | •               | •        |                             |          |                               |  |                 |                       |              |                               | •                              |                            |                             |        |            |                | -                                    |                                       |                            | •   |                                  |  |                                     |  |

From BaltSeaPlan Report No. 16

Compatible sea uses necessary

Sea uses compatible under certain conditions

Conflicting sea uses





• Spatial solutions/conditions for sea use

- Sea uses that spatially are not overlapping

From BaltSeaPlan Report No. 16

- Compatible sea uses necessary
- Sea uses compatible under certain conditions
- Conflicting sea uses
- Spatial solutions/conditions for sea use
- Sea uses that spatially are not overlapping

## Specifying the conflicting issue – examples of mutual effects

| Maritime transport  | Marine conservation   | Offshore wind farming   |
|---|---|---|
|    | <ul style="list-style-type: none"> <li>Noise pollution</li> <li>Collision risks</li> <li>Physical damage to habitats</li> </ul>           | <ul style="list-style-type: none"> <li>Risk of accidents</li> </ul>   |
| <ul style="list-style-type: none"> <li>Risk of accidents</li> <li>Diversion</li> </ul>  |    |   |
| Fisheries   | Cables & pipelines  | Offshore wind   |
|    | <ul style="list-style-type: none"> <li>Fishing vessels hooking a cable/pipeline</li> <li>Vessels stranding on a cable/pipeline</li> </ul> | <ul style="list-style-type: none"> <li>Accidental damage, including to subsea cables</li> <li>Socio-cultural conflicts</li> </ul> |
| <ul style="list-style-type: none"> <li>Spatial restrictions to fisheries</li> <li>Economic consequences of spatial exclusion</li> </ul> |    |   |

# Escalation Factors

- Political priorities
- Stakeholder perceptions and lack of understanding
- Intransparency
- Spatial Constraints
- Media Exposure
- Lack of Knowledge or contested knowledges
- Lack of resources
- Lack of acceptance of a proposed solution

# Spatial/non-spatial and MSP/non-MSP solutions

- Spatial and non-spatial solutions are available
- Study: NOT focused on 'good' stakeholder management
- Not all solutions are in the hands of planners  
→ **importance of supporting measures**
- Which solution is chosen depends on the scale and urgency of the conflict, the context and the available resources



# Types of solutions – some examples

|  | Preventative solutions   | Mitigation solutions   |
|--|--|--|
| <b>Non-spatial MSP solutions</b>             | <ul style="list-style-type: none"> <li>• Encourage the co-design of solutions</li> <li>• Assessing the potential for co-location</li> </ul>  | <ul style="list-style-type: none"> <li>• Voluntary codes of conduct for sectors</li> <li>• Compensation schemes (financial, spatial, benefits to local communities)</li> </ul>   |
| <b>Spatial MSP solutions</b>                 | <ul style="list-style-type: none"> <li>• MSP plans</li> <li>• Zoning schemes (designating priority zones, suitable zones, prohibited zones etc.)</li> <li>• Minimum distances and safety zones</li> <li>• Corridors for particular uses</li> </ul> | <ul style="list-style-type: none"> <li>• Promotion of multi-use concepts</li> <li>• Designate no travel/access zones in some locations</li> <li>• Temporary closures/restrictions</li> <li>• Allowing transit or access of restricted areas under some conditions</li> </ul> |
| <b>Non-MSP solutions (supporting action)</b> | <ul style="list-style-type: none"> <li>• Consider the seasonality of activities when permitting other activities (e.g. construction)</li> <li>• Speed restrictions for shipping</li> </ul>   | <ul style="list-style-type: none"> <li>• Technical solutions</li> <li>• Government incentives for sectors</li> <li>• Strategic research</li> </ul>   |

# Sector-specific solutions - examples

|                            | Preventative solutions   | Mitigation solutions   |
|----------------------------|--|--|
|                            | <b>Offshore wind farming</b>   |  |
| <b>Marine conservation</b> | <ol style="list-style-type: none"><li>1. Temporarily stop pile driving activities</li><li>2. Reduce the noise of pile driving</li><li>3. Choose other technical solutions to prevent harm to fauna or reduce noise emissions</li></ol> | <ol style="list-style-type: none"><li>1. Establish multi-use of MPAs and offshore wind</li><li>2. Develop a strategic ecological research programme</li><li>3. Use low cost survey techniques for underwater noise</li></ol> |

# Sector-specific solutions - examples

|                              | Preventative solutions  | Mitigation solutions  |
|------------------------------|---|---|
|                              | <b>Commercial fisheries</b>   |   |
| <b>Offshore wind farming</b> | <ol style="list-style-type: none"><li>1. Acknowledge the special status of fishers in the MSP planning process</li><li>2. Draw on fishers' knowledge to create an evidence base</li></ol> | <ol style="list-style-type: none"><li>1. Allow fishing vessels to transit offshore wind farms</li><li>2. Align construction phases with fisheries seasons</li></ol> |

# Choosing a solution – trade-offs

|  | Advantages   | Disadvantages   |
|--|--|---|
| <b>Non-spatial MSP solutions</b>                                 |  |   |
| Voluntary codes of conduct                                       | <ul style="list-style-type: none"> <li>Higher motivation of sectors to implement</li> </ul>  | <ul style="list-style-type: none"> <li>No statutory power</li> <li>Can be difficult to monitor</li> <li>Not in the hands of MSP</li> </ul>  |
| <b>Spatial MSP solutions</b>                                     |  |   |
| General zoning rules (e.g. priority/ reservation areas)          | <ul style="list-style-type: none"> <li>Directly in the hands of planners</li> <li>Gives a clear strategic framework</li> <li>Anticipatory</li> </ul> | <ul style="list-style-type: none"> <li>May be contentious to negotiate</li> <li>Reduces flexibility of MSP to respond to specific circumstances</li> <li>May cause sectors to push for maximum interests, leading to conflict escalation</li> </ul> |
| Relocation of activities   | <ul style="list-style-type: none"> <li>Resolves existing conflict</li> </ul>   | <ul style="list-style-type: none"> <li>May not be possible in some cases</li> <li>May be very time-consuming</li> <li>May not be in the hands of planners</li> <li>May be expensive if compensation has to be paid</li> </ul>                       |
| Temporary closures   | <ul style="list-style-type: none"> <li>Flexible</li> </ul>   | <ul style="list-style-type: none"> <li>May lead to pressures shifting elsewhere</li> </ul>  |
| <b>Non-MSP solutions</b>   |  |   |
| Use of technical solutions, design guides, innovation in sectors | <ul style="list-style-type: none"> <li>May be a more effective solution compared to zoning</li> <li>May remove the conflict altogether</li> </ul>    | <ul style="list-style-type: none"> <li>Not in the hands of planners</li> <li>Requires the active support of sectors</li> <li>May be very expensive</li> </ul>   |

# Definitions of success

- Conflicts may never be fully resolved
- Conflicts may recur
- Success: Is the solution to the satisfaction/acceptance of the stakeholders involved?
- Has further escalation been avoided?

→ crucial role of stakeholder involvement, acceptance of the available knowledge base and levels of uncertainty

# WHAT is Multi-Use?

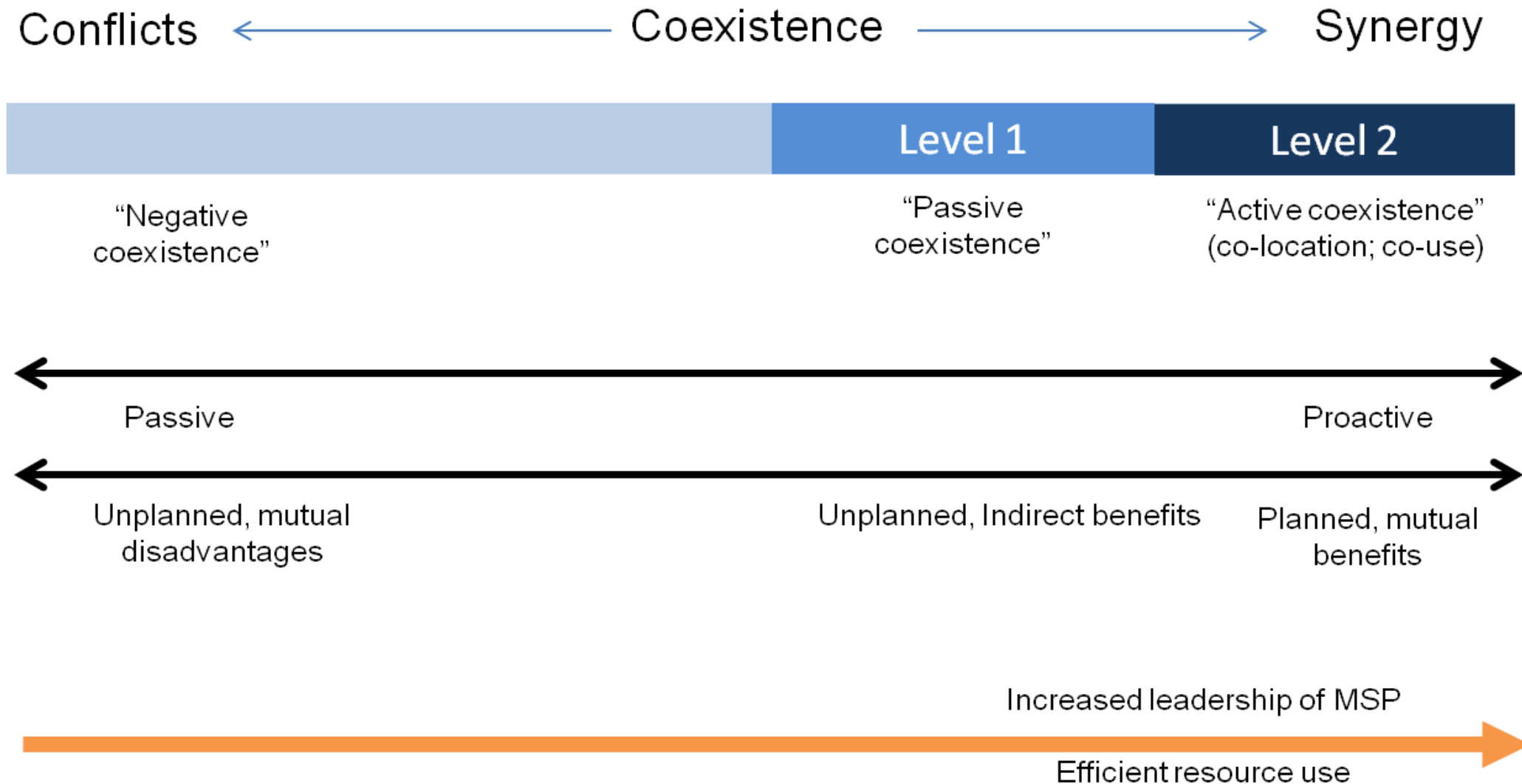
## Definition

**Multi-Use - in the realm of marine resource utilization –  
is understood as the **intentional joint resource** use  
by two or more users**

**A radical change** from the concept of **exclusive resource rights** to the  
**inclusive sharing of resources** by two or more users.



# What's the difference?



# Multi-Use Typology

## Primary + Secondary Use/ Staggered Development

MU where existing primary use (i.e. offshore wind) is being combined with the new secondary use (i.e. shellfish aquaculture)

## Joint MU development

MU where two (or more) combined uses are applying for licenses and developing in the same time

| Type   | Dimensions |          |              |            | Description  | Examples  |
|--------|------------|----------|--------------|------------|--|---|
|        | Spatial    | Temporal | Provisioning | Functional |  |   |
| Type 1 | ✓          | ✓        | ✓            | ✓          | Takes place in same exact place and time, with shared services and core infrastructure | German FINO Platforms, PLOCAN, Scottish Floating Power Plant (FPP)  |
| Type 2 | ✓          | ✓        | ✓            |            | Peripheral infrastructure or services on sea or land are shared                        | Proposed aquaculture in OWF in the Germany and Scotland   |
| Type 3 | ✓          | ✓        |              |            | Takes place in same ocean space at the same time                                       | Fisheries in Offshore Windfarms in the UK   |
| Type 4 | ✓          |          |              |            | Takes place in the same ocean space but subsequently                                   | Repurposing of offshore structures for new uses like recreational fishing, tourism, aquaculture or environmental conservation (Italy) |

# Why Multi-Use?

● **Reduce Conflicts**

# Why Multi-Use?

## Global megatrends:

- Population Growth
- Food & Energy Demand
- Environmental Pressures

- 
- More efficient use of ocean space and resources
  - Enable certain use to happen at all
  - Economic benefits to marine users
  - **Reduce Conflicts**
  - Alternative source of revenue
  - Ease the environmental pressures
  - Diversification of sectors
  - New Funding for UCH & Environmental Protection

# MU drivers & barriers

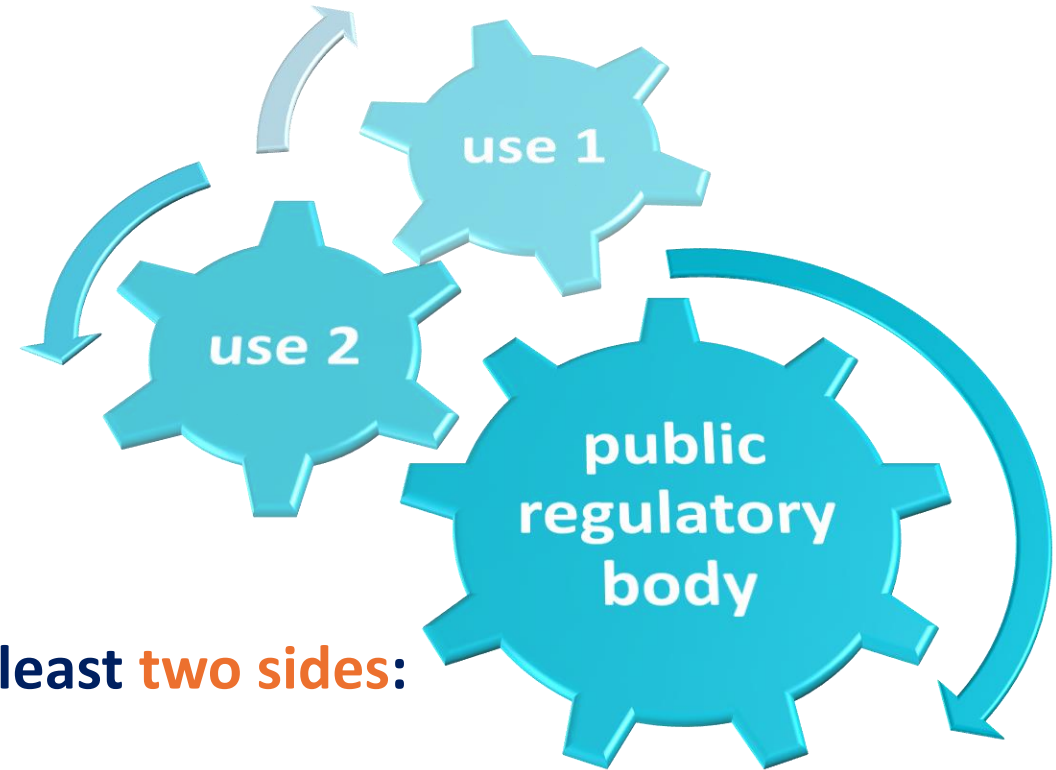
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- More efficient use of ocean space and resources
  - Economic benefits to marine users
  - Alternative source of revenue
  - Diversification of sectors
  - Enable certain use to happen at all
  - Reduce Conflicts
  - Funding for UCH and MPA management
  - Ease the environmental pressures

Everything <single sector> !!!

- Lack of information about cumulative impacts
- Different priorities among sectors
- High risk/value ratio
- Low investment capacity of some users
- Permitting regime
- Really 'win-win' ? macro vs micro
- different 'space' preferences / offshore 'not' hot

# Multi-Use does not come naturally

A MU does NOT only involve TWO sectors ....  
e.g. commercial enterprises BUT  
regulatory body / bodies ...  
and ..... Insurance, finance, stakeholders !



For a MU to happen, interest needs to come from at least **two sides**:  
**both uses**  
or  
**one use and the regulatory body**



# MUSES Ocean Multi-Use Action Plan

- ❖ Definition/Scope of the MU
- ❖ State of Development/Future Potential
- ❖ Drivers/Benefits, Barriers/Negative Impacts
- ❖ Logical Framework
- ❖ Objectives
- ❖ Actions/Recommendations



# What is needed? Cross Cutting Issues/Actions



# Concluding Remarks

- ❖ A much **wider range of opportunities** for creating synergies among different maritime uses exist compared to what has been previously associated with the MU concept
- ❖ A wider **recognition and active promotion of small scale/local MU** is needed to advance their function as tangible & beneficial MU
- ❖ Build confidence and pave the way for more advanced multi-use solutions, which afford **joint development from the onset**
- ❖ **MSP provides an opportunity to foster interaction between different MU actors. But MSP is one out of many tools and actions**
- ❖ Substantial efforts are needed in capacity building, changes in underlying legal frameworks, funding structures and research– all of which are not designed towards **multi-disciplinary work and solutions**
- ❖ **A radical – a cultural change !**

# Thank you!

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❖ <https://musesproject.eu/downloads/>