Multi Use
Governance, Insurance & Risk analysis

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Introduction

About Multi Use at Sea

5 Pilots:

- Greece: Aquaculture & Tourism
- Denmark: Windfarm & Tourism
- Belgium: Shellfish, Seaweed & Windfarm
- Netherlands: Seaweed, Solar & Windfarm
- Germany: Seaweed, Shellfish & Windfarm

- Governance, Insurance, Legal, Health & Safety

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Overall Multi Use Policies

- Priority is given to **safety of shipping:** so, nothing close to international shipping lanes (IMO)
- Offshore installations need to be **decommissioned** at the end of a fixed period: partly or completely ?

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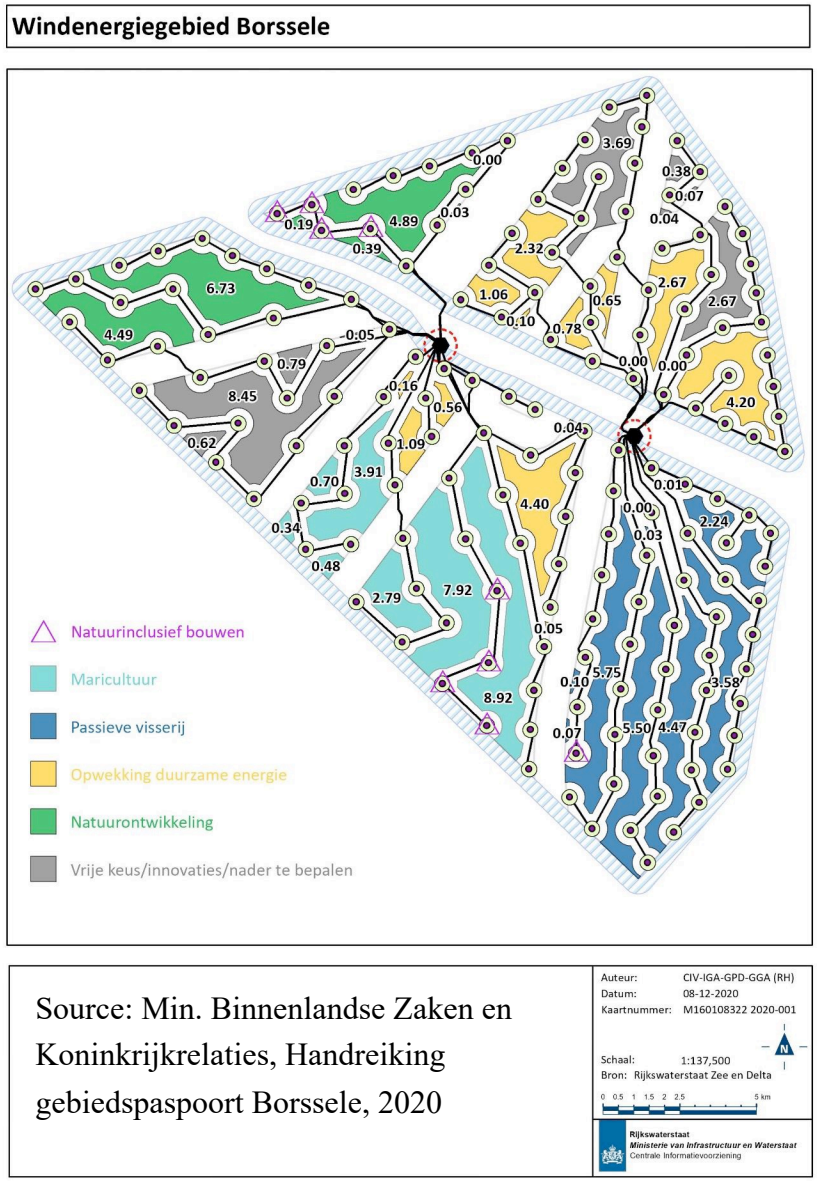
Can we do MU?

- **DK**: MU, insofar not prohibited by other sectorial legislation
- **BE**: MU mentioned in MSP, but weak stimulation and limited to one area
- **DE**: very complex, rigid administration – different authorities
- **GR**: no real framework, but happens
- **NL**: more open and flexible policy, MU zones are indicated in the Borssele wind mill park



Source: Min. Binnenlandse Zaken en Koninkrijkrelaties, Handreiking gebiedspaspoort Borssele, 2020

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MU in offshore wind farms with restrictions

- **Belgium** (aquaculture, passive fisheries, research, monitoring, no passing through, nature conservation);
- **Germany** (passive fisheries by fish traps and baskets, passing through by fishing vessels on their way to fishing grounds, research, monitoring) (aquaculture to be further researched);
- **The Netherlands** (aquaculture, passive fisheries, passing through (not in all ORE parks), nature conservation, research, monitoring);
- **Denmark** (fishing, shipping, tourism and recreation can take place: passing through)

- **Contrast: BE** restrictions for tourism in parks; **DK** touristic visits to windmill

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Do we want MU?

- Very different legal approaches.
  - “ideologically” countries want MU,
  - economic players are not necessarily against

- ISSUES
  - Regulatory framework (FW)
  - Economic rentability
  - Poor collaboration between administrations

- No MU zones with uniform regulation
- No one-stop-shop on admin level

- No integrated MU permits for a combination of two activities: **Single permits are still the rule, and a cumulative EIA is non-existent so far**

→ Without clear regulatory FW, MU won’t happen

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Insurance policies

- No new insurance policy required for GR, DK, NL in contrast to BE & DE
- MU insurance policies have a wide coverage of beneficiaries and benefit one another
- Insurance coverage: company assets
- Cost for loss of aquaculture stock or production is not insured

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Insurance policies: determining risk

- **Location**: avoid certain types of MU in high-risk areas; use clear corridors to navigate through the MU area
- Local and seasonal **weather** patterns
- **Track record** of those involved
- **Number of trips** to installation: decrease vessel traffic by scheduling joint MU navigation (e.g. maintenance for one partner and sampling for the other)
- **Novelty** of MU and lack of historical data
- Biggest concern is **cost** – deemed (too) high in all pilots
- **Power imbalance** between the MU parties

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Insurance policies: Solutions

- **Clarify** everything as much as possible:
  - plan for MU from the start and share data with insurer
  - SOMOS model
- **Method statements**, near shore or computerized simulations, specific risk analyses, mitigating measures taken (buoys, weather stations, ROVs, cameras…), certifications, training, zero accidents track record, and other available data
- **Contractually agree on waiver** of recourse between MU partners: co-operate to shoulder the costs more evenly
- **Provide details** to avoid overassessment of risks
- **Pool insurance at a larger scale** (‘self-insure’ or government assisted insurance/fund)

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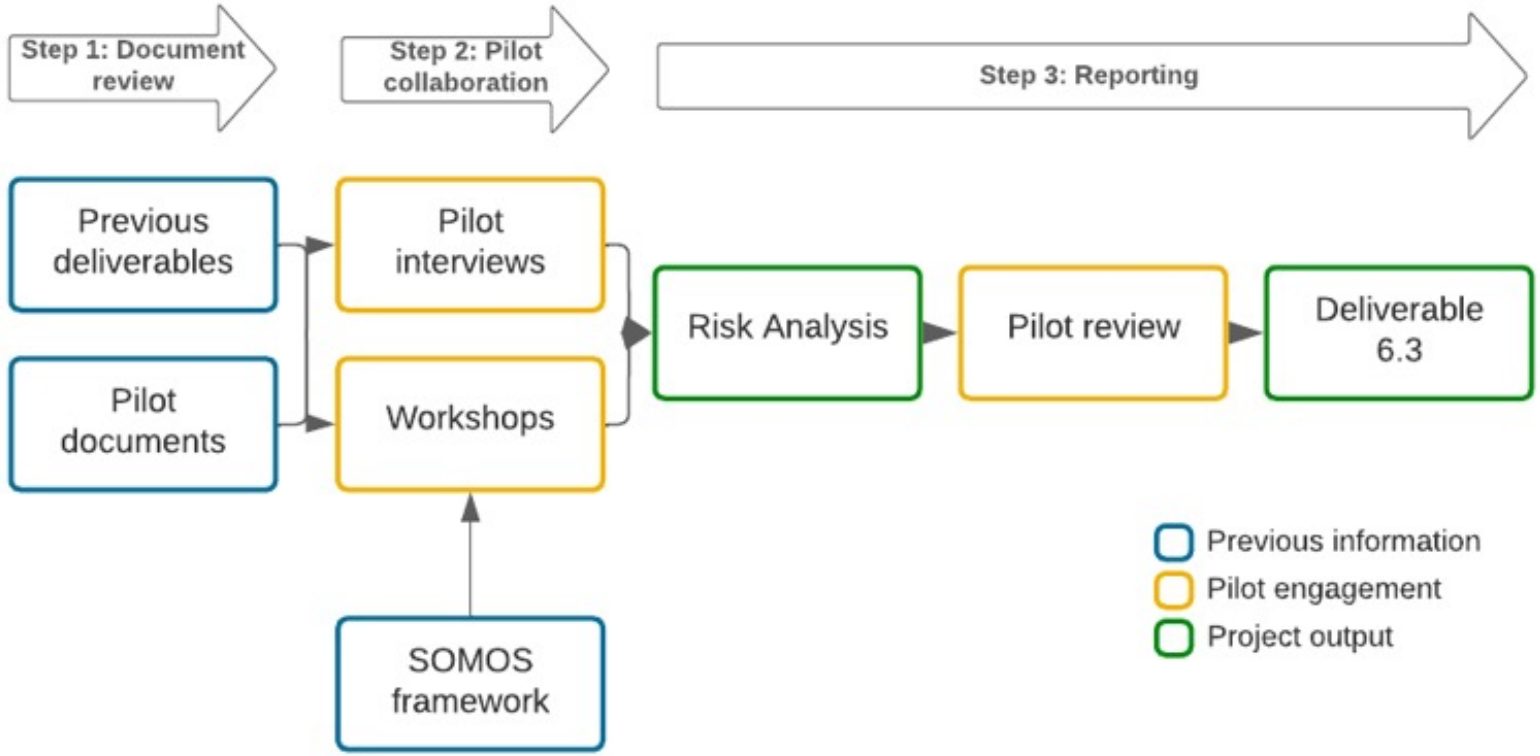
Risk Analysis Method



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Top risks by pilot

Risk No	German	Dutch	Belgian	Danish	Greek
1	Inadequate insurance coverage	Inadequate insurance coverage	Inadequate insurance	Inadequate insurance	Inadequate insurance
2	Severe weather	Severe storms	Environmental catastrophic events	Severe weather	Severe weather
3	Lack of qualified staff	Activity on the site by other multi-use partners	Decommissioning of assets	Presence of tourists and workers on the wind farm interacting with the infrastructure	Site water quality
4	Water quality at production site	Decommissioning of assets	Connectivity issues	Lack of specific technology knowledge	Anchoring boats near the site
5	Lack of regulations for multi-use at sea	Engineering design solutions interacting	Damage risks of mechanical loads and collisions with vessels/ships/fishing boats	Structure failure	Camera and sensors

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Summary of UNITED pilot risk analysis

Risk factors

Key common risks:

- Inadequate insurance coverage
- Severe weather
- Water quality
- Decommissioning
- Lack of specific regulations
- Structural failures caused by multi-use activity equipment interacting

Key complicating factors:

- Introducing biological material for production
- Untrained members of the public entering the site
- Frequency of visits to the site
- Value of assets

Stakeholders

Key actors at risk:

- Workers that operate on site
- Tourists entering the site (if applicable)
- Businesses within the site
- Businesses operating in the vicinity
- Cultivated flora or fauna (if applicable)
- Marine plants and animals in local ecosystem
- Consumers of the products
- Wider stakeholders

Key actors mitigating risks:

- Multi-use partners
- Regulators
- Supply chain actors
- Insurers
- Local stakeholders

Consequences of inadequate risk mitigation:

- Death or serious injury to people, assets and the environment
- Slow down of the rollout and scale-up of multi-use

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Conclusion

- Risks identified have potential to slow down rollout and scale-up of multi-use at sea by:
  - Increasing delivery costs
  - Increasing complexity and worker capability requirements
- If multi-use proceeds with inadequate risk mitigation, consequences can be catastrophic – i.e. death or serious injury to people, assets, and the environment.
- Most risks identified can be mitigated well by multi-use delivery teams. Some will require support from regulatory bodies to fully address the issues (e.g. developing more clear multi-use regulations to improve planning predictability).
- Each future multi-use site will need a thorough and systematic, site and business model specific approach to risk appraisal.
- D6.3, including risk analysis appendices, should facilitate future design of multi-use projects and allow delivery partners, policy makers, and stakeholder to make better informed decisions about the investment opportunities.

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