TRANSEATION

BLUE IS THE NEW GREY · NATURE-BASED SOLUTIONS

Advancing Ecosystem-Based Management through Hybrid Blue-Grey Infrastructures in Marine and Coastal Areas

Co-funded by the European Union

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Blue Mission BANOS Arena 3

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Can minimum requirements for Nature-based solutions support the implementation and reduce risks of greenwashing in EU marine and coastal environments?

Christian Riisager-Simonsen (DTU), Louise C. Flensborg (DTU)

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Workshop introduction

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Time	Title	Pres.	Format
20 min.	Introduction to the project and objectives for ws	DTU	Presentation
Session 1: Ecosystem risks in relation to proposed NbS			
1 min.	What drives the implementation of proposed marine NbS	DTU	Presentation
20 min.	Identifying risks at different project phases		Group work
5 min.	Key recommendations from each group	Groups	
Session 2: Solutions - Minimum requirements as a potential solution – but which?			
20 min.	What minimum requirements at different project phases could be relevant when deploying NbS?		Group work
5 min.	Key recommendations from each group	Groups	
15 min.	Which criteria could exclude that a proposed NbS should be accepted as an NbS		Group work
5 min.	Key recommendations from each group	Groups	
10 min.	Next steps – for the TRANSEATION project and identification of interest in drafting a position paper on minimum ES accounting	DTU	Presentation

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Key question: “How could someone evaluate if a proposed ‘solution’ should be accepted as a NbS or not?”

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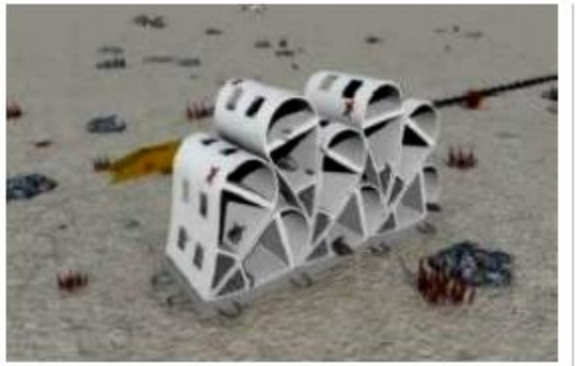
Workshop introduction

Key question: "How could someone evaluate if a proposed 'solution' should be accepted as a NbS or not?"

1. An artificial reef is created by cutting up a decommissioned wind turbine blade (i.e. waste)



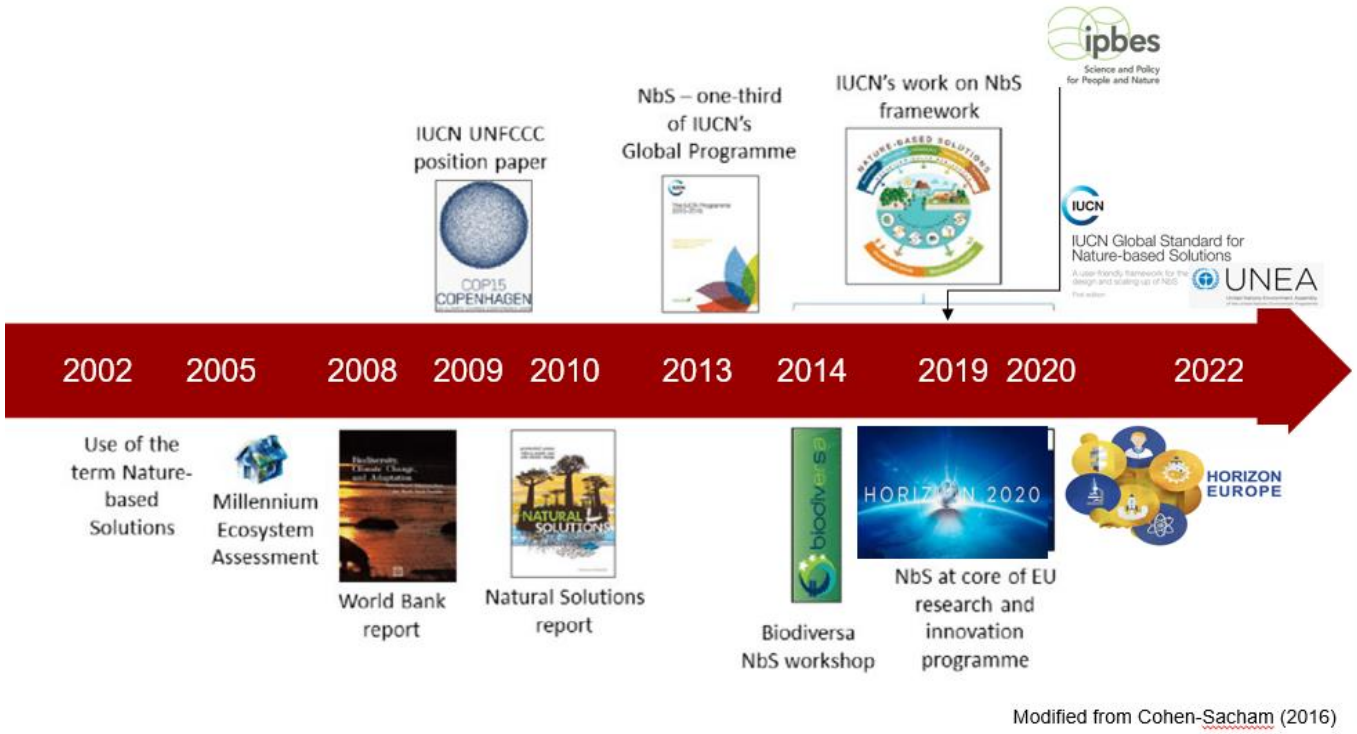
2. Coastal protection is done through restoration of stone reef and eel grass beds

3. Low trophic aquaculture used to produce food and reduce eutrophication on biodegradable lines

Workshop introduction

A quick look down memory lane

The umbrella concept 'Nature-based Solutions' as a strategic EU agenda



Modified from Cohen-Sacham (2016)

'Nature-based Solutions' now have a central role in several EU policies

1) Green Deal
2) ***Taxonomy on sustainable investments + CSRD***
3) Biodiversity Strategy
4) Blue Economy Strategy
5) **EU Restoration Law?**

Is expected to play a key role in achieving goals related to

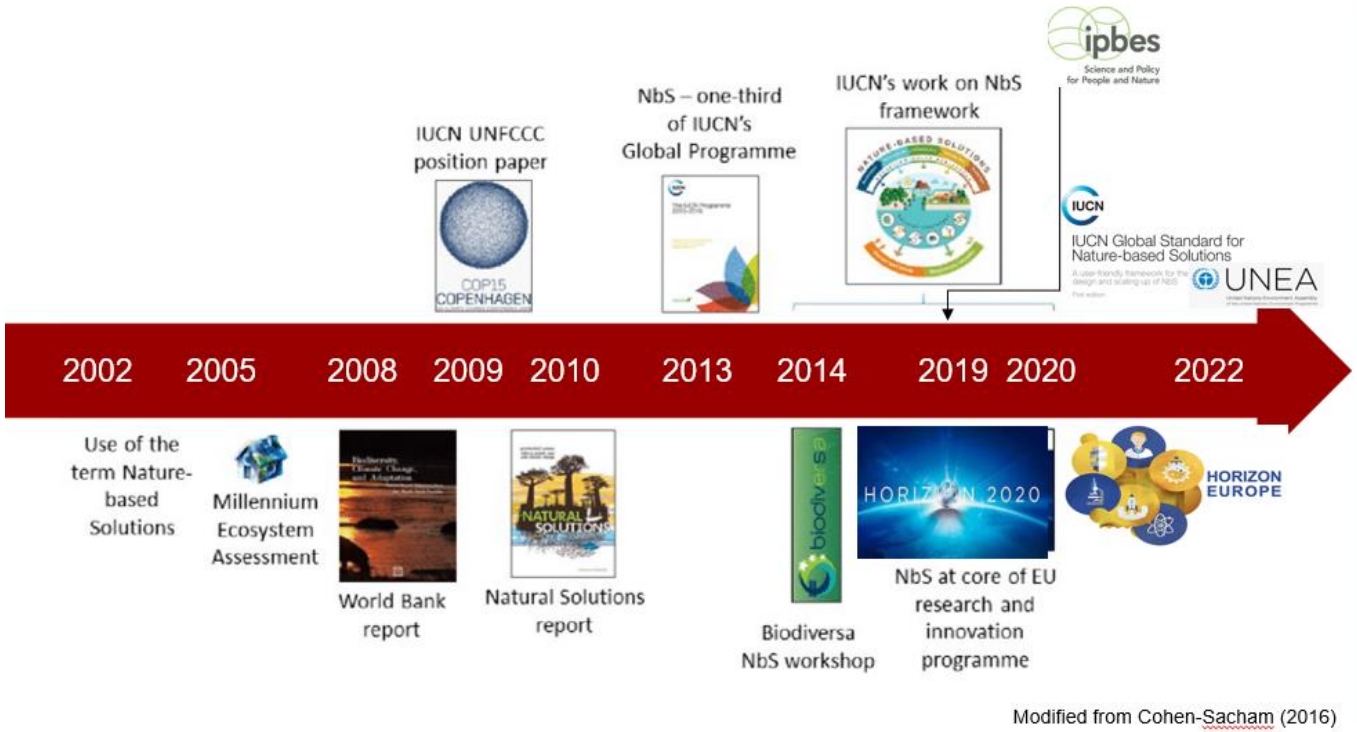
a) Net Biodiversity gains
b) Net ecosystem gains

Workshop introduction

A quick look down memory lane

NbS as a tool for transformative change

The umbrella concept 'Nature-based Solutions' as a strategic EU agenda



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'Nature-based Solutions' now have a central role in several EU policies

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Why is it still necessary to discuss what 'Nature-based Solutions' are or is expected to accomplish?

EU Commission's definition

"*solutions that are **inspired by and supported** by nature, which are **cost-effective,** simultaneously provide environmental, social and economic benefits, and help build resilience*"

and further emphasises that "*such solutions bring more, and more **diverse, nature and natural features** and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions*"

IUCN's definition

"*actions to **protect, sustainably manage**, and restore natural or modified **ecosystems**, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits*"

UN's Environmental Assembly's definition (2022):

"*are actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits*"

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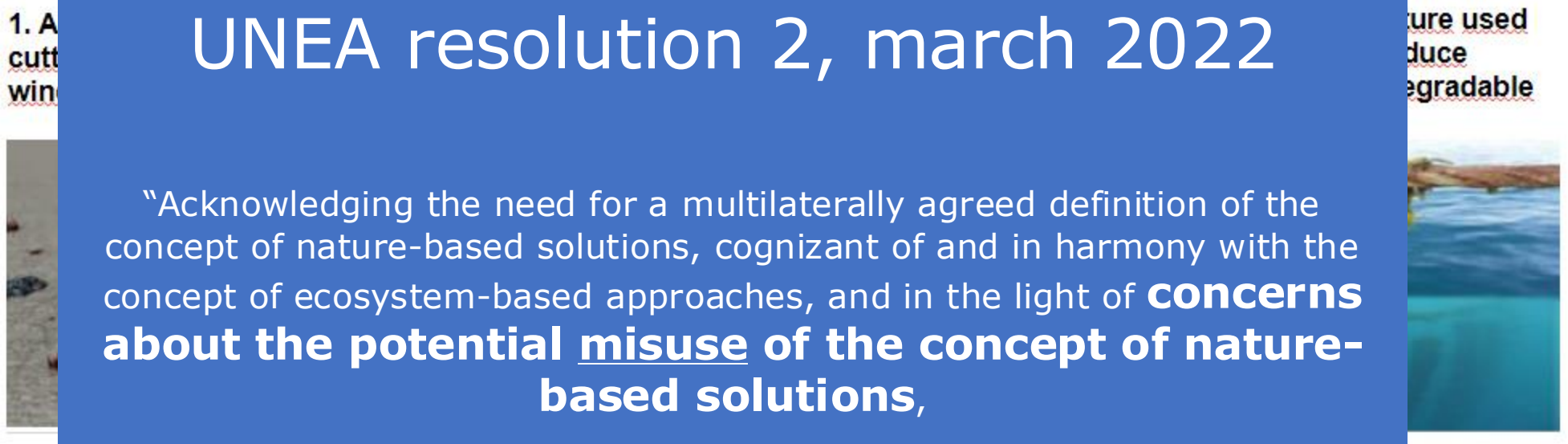
Key question: "How would you evaluate if a proposed solution should be accepted as a NbS or not?"



UNEA resolution 2, march 2022

"Acknowledging the need for a multilaterally agreed definition of the concept of nature-based solutions, cognizant of and in harmony with the concept of ecosystem-based approaches, and in the light of **concerns about the potential misuse of the concept of nature-based solutions**,

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Who has a problem if we do not have consensus on the definition and requirements for implementing NbS?

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Who has a problem if we do not have consensus on the definition and requirements for implementing NbS?

1) **Companies** who want to do the 'right thing', but not be accused of ***green washing***

2) **Consultancies** who tries to guide and advice companies, municipalities, ports etc.

3) **Capital asset managers and auditors** who needs to address NbS in relation to the EU taxonomy on sustainable finance, and CSRD reporting

4) **Governments** who wants to "live up" to international goals of increased deployment of NbS

5) **Research institutions** and others who needs to provide scientific advice like DTU

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Who has a problem if we do not have consensus on the definition and requirements for implementing NbS?

Several challenges with the guideline

1. Very high level
2. Spans all ecosystems
3. Spans all cultures, world views, policies

- Thus very generic
- Likely not tangible enough for a auditor, reviewer in a research council etc. to determine if a proposed NbS should be accepted as such

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How can we help such actors without overburdening them with documentation requirements?

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Workshop introduction

A short intro to the Transeation project

Horizon Europe Mission Restore our Oceans and Waters by 2030 – cross-basin project

Duration

2024-2027

Budget

4 999 582,79 €

Co-funded by the European Union

Opbjective 1: EBM

Apply Ecosystem-based management to integrate NbS in marine and coastal infrastructures

Objective 2: 3 types of demonstrators

Objective 3: develop blue building rating system

Objective 4: trade-offs in hybrid solutions

Objective 5: digital support tools

This project has received funding from the European Research Executive Agency (REA) under the Grant Agreement No. 101135343. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Read more on www.transeation-europeanproject.eu/

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Workshop introduction

How do you ensure that NbS contribute to Ecosystem-based coastal and marine management?

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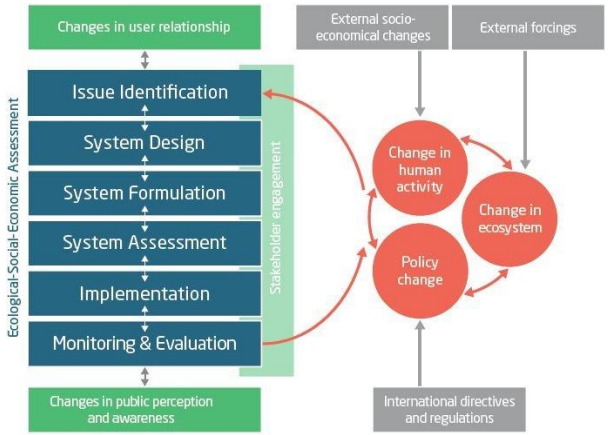
Workshop introduction

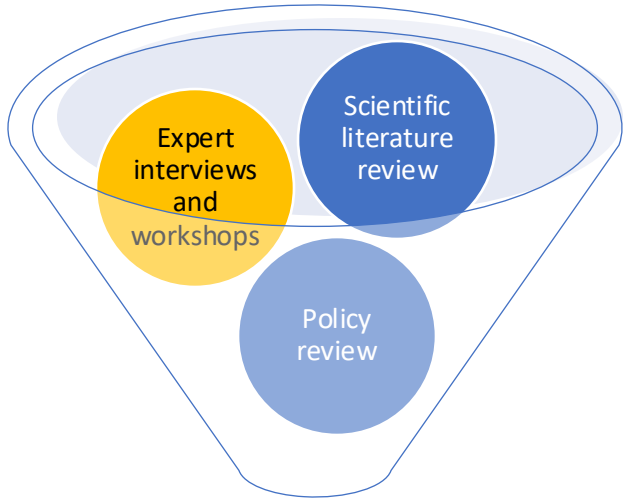
How do you ensure that NbS contribute to Ecosystem-based coastal and marine management?

1. **Apply the 'Systems approach' to analyse both succesfull and non succesfull NbS**



2. **Testing of risk assessment framework on case framework on case NbS in TRASEATION project**

3. **Literature, expert and public consultations on the potential for minimum requirements**



Draft minimum requirements for stakeholders going into open public consultation in spring 2025

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Workshop introduction

Objectives of the workshop

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Workshop introduction

Objectives of the workshop

Problem level

Solution hypotheses

1) Identify what the *main risks* are for poor implementation of proposed NbS from an *ecosystem point of view* in marine and coastal contexts at different project phases (i.e. planning, construction, operation, decommissioning)

   - Explored in group work 1 (20 min)

2) Identify what would be relevant *minimum requirements which should be documentation* in projects related to the deployment of marine and coastal NbS at different *project phases*

   - Explored in group work 2 (20 min)

- Identify potential exclusion criteria as a screening tool for 'proposed' marine and coastal NbS

   - Explored in group work 2 (10 min)

Session 1: Environmental risks in relation to poor implementation of proposed NbS

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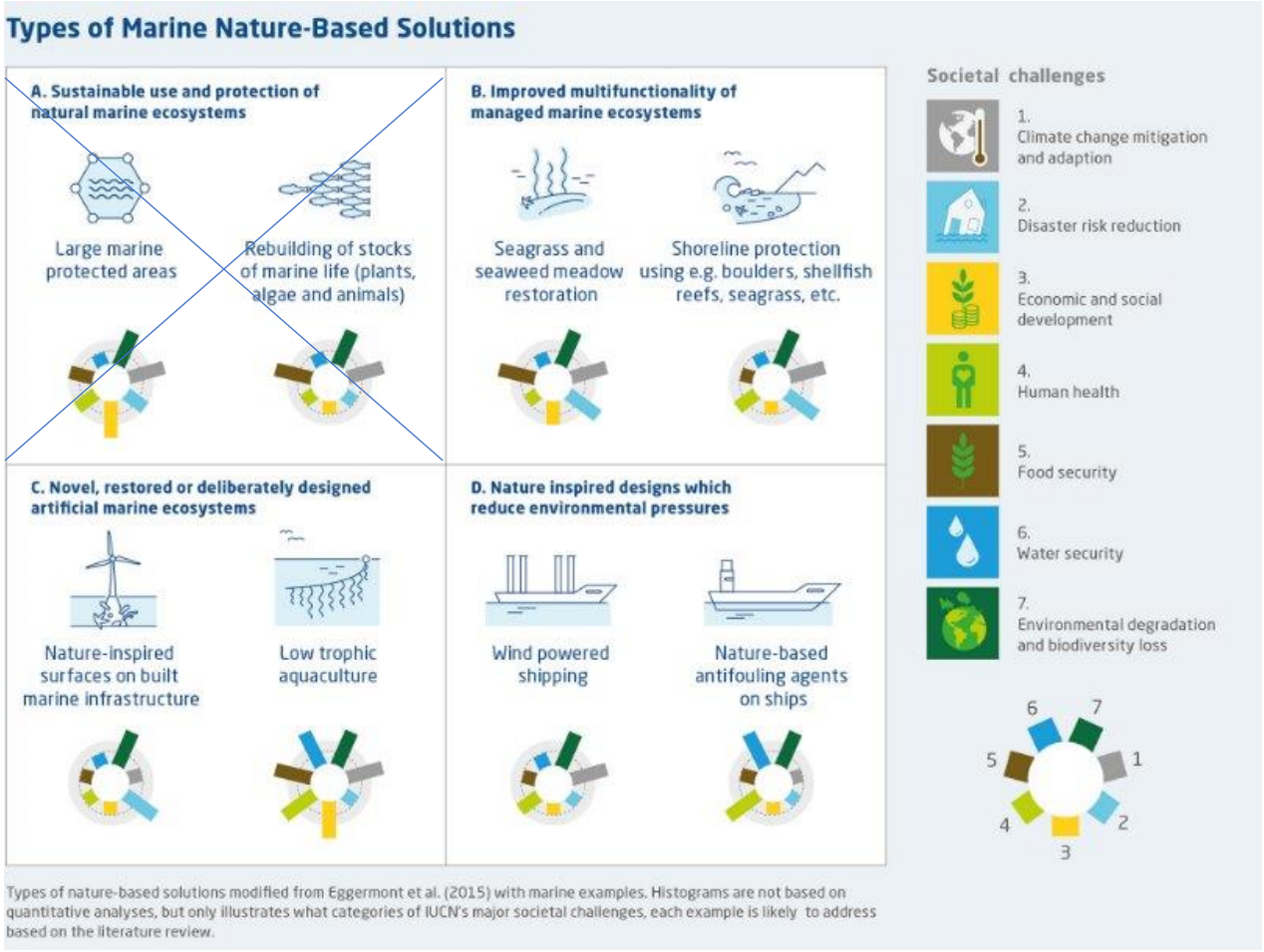
We focus on? – active physical interventions



Riisager-Simonsen et a. 2022

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Session 1: Risks

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What drives implementation of NbS in coastal and marine environments?

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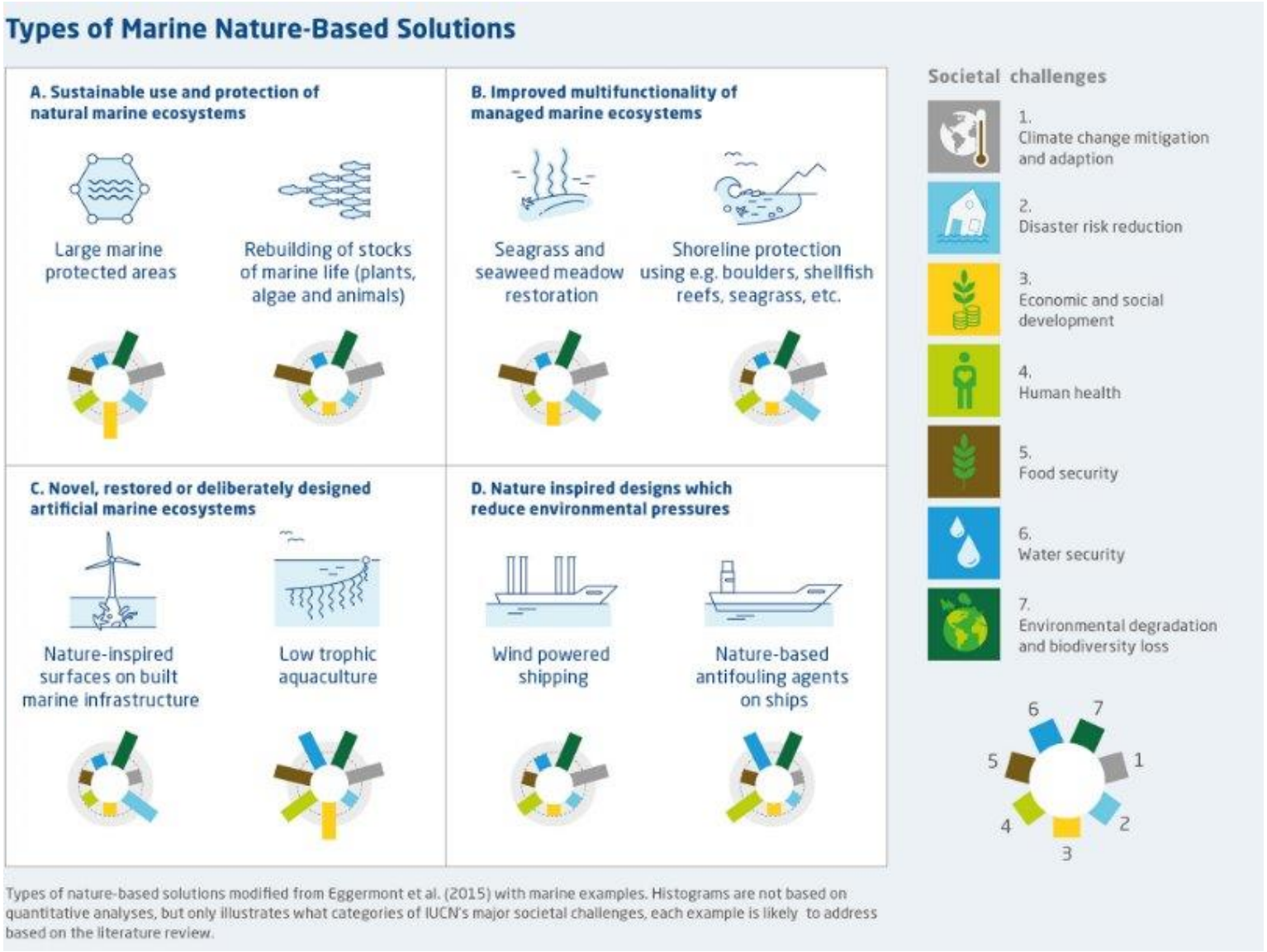
Session 1: Risks



Riisager-Simonsen et al. 2022

Session 1: Risks

Group work introduction

Session 1: Risks

Group work 1: introduction

Ground rules:

- All points are recorded (on post-its) but not attributed to a specific person
- Everyone has a right to be heard / make a post it
- Try not to interrupt in discussions
- Use language everyone can understand
- Check what is written is what you mean

Group work practicalities:

1) You are divided into groups based on 'passport technique'
2) Choose on person in the group to keep the **time**
   - The person ensures your go from one project phase to the next every five minute.
3) Choose another person to organise post its on the paper

4) When time is up hang the poster on the wall

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Session 1: Risks

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Groups

1. Academic / Research perspective on NbS
2. Business perspective on NbS
3. Public sector perspective on NbS
4. NGO perspective on NbS

Session 1: Risks

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Group work 1 introduction

Objective:

- Identify what the *main ecosystem related risks* are for poor implementation of proposed NbS in marine and coastal contexts at different project phases (i.e. planning, construction, operation, decommissioning)

  – Explored in group work 1 (20 min)

Group work practicalities:

1) You are divided into groups based on 'passport technique'
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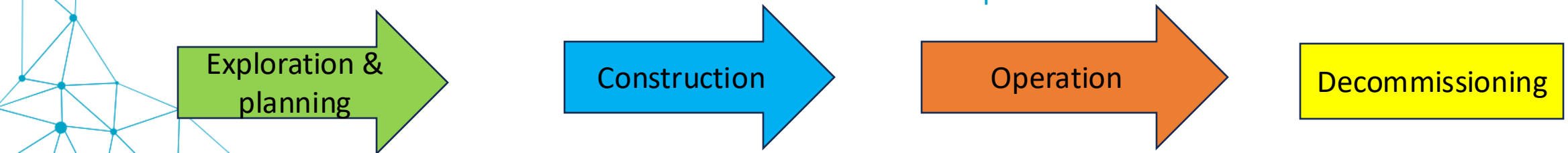
3) Choose another person to organise post-its on the paper

4) When time is spent 1 minute ranking each idea from most important to least and hang up the poster on the wall



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Session 1: Risks

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Session 2: Risks

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Session 2: Solutions

Group work 2:

Solution hypotheses

- Identify what would be relevant *minimum requirements for documentation* in projects related to the deployment of marine and coastal NbS at different *project phases*

  - Explored in group work 2 (10 min)

Session 2: Solutions

Group work 2 introduction

Objective:

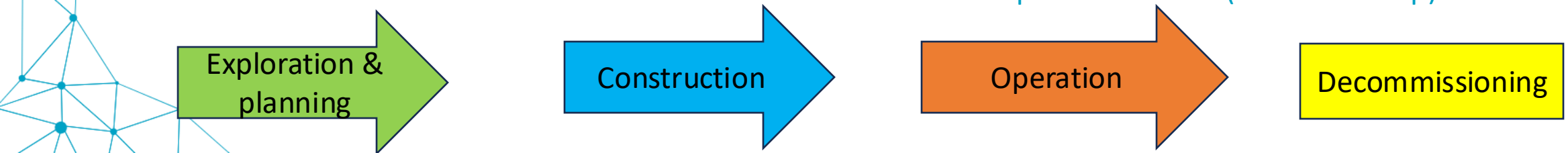
- Identify what would be relevant ***minimum requirements for documentation*** in projects related to the deployment of marine and coastal NbS at different ***project phases.*** *And who should carry it out?*

  – Explored in group work 2 (20 min)

Group work practicalities:

1) You are divided into groups based on 'passport technique'
2) Choose on person in the group to keep the **time**
   - The person ensures you go from one project phase to the next every five minute.
3) Choose another person to organise post-its on the paper

4) When time is up hang the poster on the wall and spent 1 minute ranking each idea from most important to least (best at the top)



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Session 2: Solutions

Group work 3:

Solution hypotheses

- Potential exclusion criteria as a screening tool for proposed marine and coastal NbS

Session 2: Solutions

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Group work 3 introduction

Objective:

- Identify potential **exclusion criteria** as a screening tool for proposed marine and coastal NbS (10 min)

Group work practicalities:

1) You are divided into groups based on 'passport technique'
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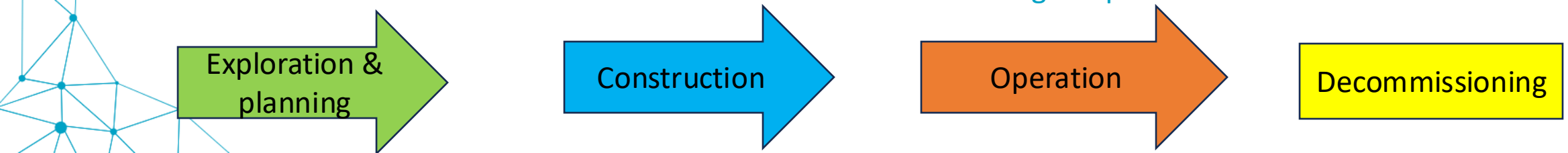
4) When time is up spent 1 minute ranking each idea from most important to least (best at the top) and hang the poster on the wall and



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Next steps for the project

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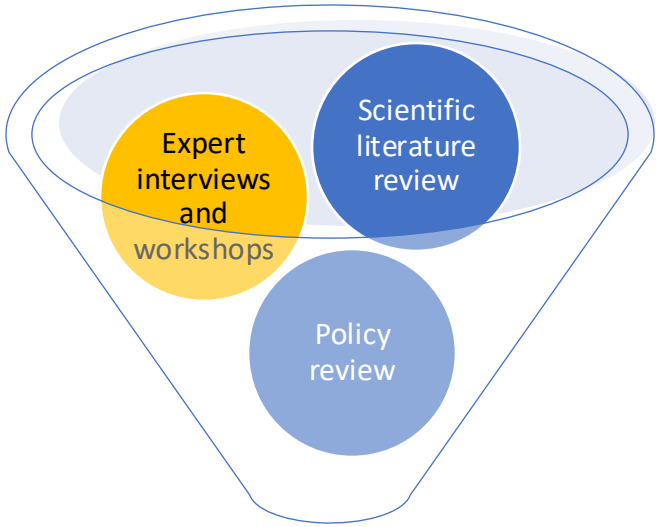
What comes after minimum requirements?

3. **Literature, expert and public consultations on the potential for env. minimum requirements**



Draft minimum requirements for different stakeholders going into public consultation spring 2025

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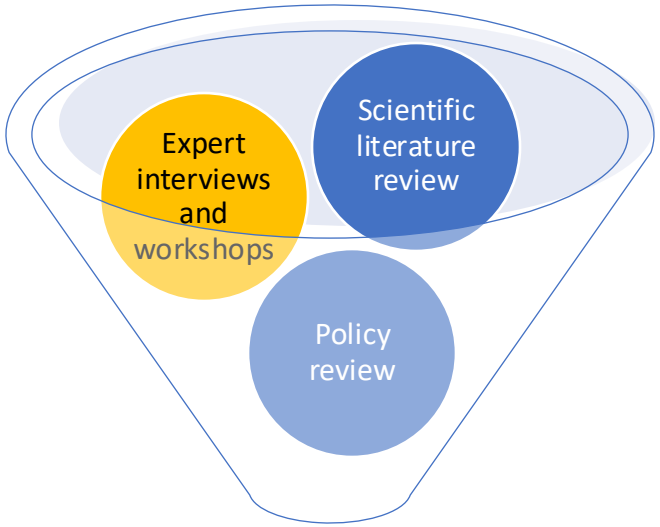

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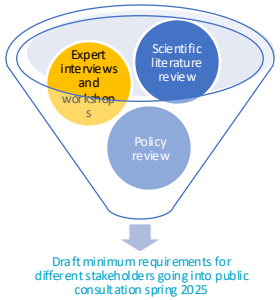
Next steps for the project

What comes after minimum requirements?

1. **Apply the 'Systems approach' to analyse both succesfull and non succesfull NbS**

2. **Testing of risk assessment framework on case NbS in TRASEATION project**

3. Literature, expert and public consultations on the potential for env. minimum requirements



3. Produce a draft for a regenerative LEED-based sustainability **rating system** for hybrid blue-grey infrastructure based on e.g. systems approach and NbS minimum requirements

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Next steps for the project

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Next steps for the project

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Thank you for now

and have a great conference

You are all welcome to reach out
Christian Riisager-Simonsen – chrii@aqua.dtu.dk

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