



Activity 1:  
A1 – Analyses to support effective regional measures



**BLUES**



# Use of marine waters & Sufficiency and effectiveness of measures

21 June 2021

Luke Dodd



**HELCOM**



# Use of marine waters

- Document 3 Use of marine waters
- No significant methodology changes from HOLAS II
  - Only updated as required by current data availability
- EN ESA 's role in the analysis
  - Advisory body (ongoing)
  - Data requests (future)
- **Meeting asked to:**
  - provide comments to the proposed approach for the use of marine waters analysis;
  - if possible, support the proposed approach for the use of marine waters analysis.





# Sufficiency and effectiveness of measures

- Document 4 Sufficiency and effectiveness of measures
- Framework and methodology improvements ongoing
- Based on work of HELCOM ACTION
  - Final methodology submitted to EN ESA 12-2021
- EN ESA 's role in the analysis
  - Advisory body (ongoing)
  - Data requests (future)





# Targeted improvement areas

- Improved consideration of spatial aspects
- Improved consideration of joint and transboundary effects
- Adding missing model links
- Improved data on effectiveness of measures
- Add new topics, indicators and GES threshold values
- General improvements





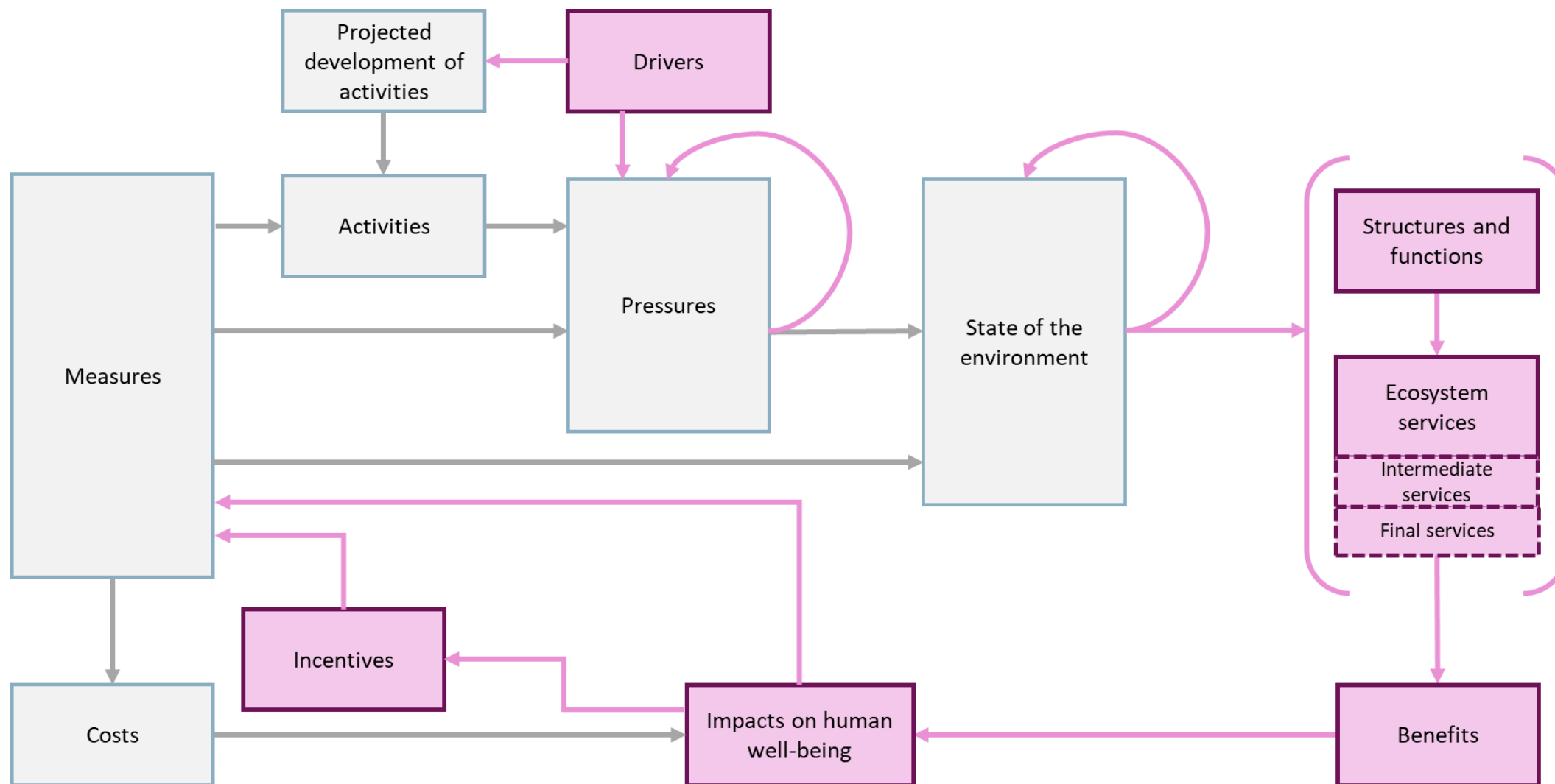
# Improved consideration of spatial aspects

- Minimum spatial units
  - Marine: HELCOM scale 2 areas divided into national areas (42 total areas)
  - Land: catchment areas and national boundaries
  - Other: North Sea and Rest of World
- Otherwise TBD





# Improved consideration of joint effects





# Improved consideration of transboundary effects

- NIS: apply Ballast Water Management Convention effectiveness of measures to North Sea to reduce input from the activity “natural secondary spread”
  - Previously assumed to be constant
- Transboundary watersheds included in the model
- Data resolution improvements





# Adding missing model links

- New link between input of nutrients and effects of eutrophication
  - Based on dedicated BALTSEM model outputs







# Improved data on effectiveness of measures: EoM estimates from literature

- Topic-expert designed weighting system, literature update, and measure type adjustments
  - Marine mammals
  - Waterbirds
  - Coastal fish
  - Other topics based on available resources
- Updated methodology for integration of expert- and literature-based EoM estimates





# Improved data on effectiveness of measures: Measure type design

- **1<sup>st</sup> Generation measure types (ACTION)**
  - Gen 1 measure types are an ad hoc mix of specific and general measure types
- **2<sup>nd</sup> generation measure types (BLUES)**
  - **Specific**
    - Designed based on knowledge-base of the topic
    - Potentially supported by literature effectiveness of measures estimates
    - Familiar to topic experts
  - **General**
    - Designed based on existing measures data
    - Vague
    - Difficult for topic experts to answer, high uncertainty
    - Required for model operation
  - **Pros**
    - Good messaging tool for explaining difficult to answer measure types
    - More measure types able to use literature estimates
    - Better palette of measures creates a better tool for selecting future measures
  - **Cons**
    - More measure types overall which could increase survey lengths





# Add new topics, indicators and GES threshold values

## Potential additions:

- New topics and indicators
  - Offshore non-commercial fish
  - Pelagic habitats
    - Zooplankton
    - Phytoplankton
- New GES threshold values
  - Harbour porpoise
  - Beach litter
  - Zooplankton
  - Phytoplankton





# General improvements

- Update of pressure and activity lists
- Improved presentation of results
- Increased automation





# Clarifying climate change approach

- Driver not a pressure
- In MSFD, it is treated as a cause to adjust targets rather than an issue to be managed
  - In BLUES framework, climate change related pressures should be separated from other similar pressures (e.g. habitat loss directly from human activities vs. habitat loss from climate change)
  - Such pressures can be included in expert surveys and overall framework but the total pressure calculation should be adjusted accordingly





# Sufficiency and effectiveness of measures

- **Meeting asked to:**
  - provide comments to the proposed updates to the approach for the sufficiency and effectiveness of measures analysis.





# Proposed climate change pressure adjustment

		Percentage	Total
Climate related pressures	Climate pressure A	10	40
	Climate pressure B	30	
Other pressures	Other pressure A	10	60
	Other pressure B	15	
	Other pressure C	35	
Total pressure			100
Required pressure reduction			80
Adjusted total pressure			167
Adjusted total manageable pressure			100
Adjusted pressure reduction			133

