

BALANCE

Marine Spatial Planning

BALANCE Conference

25-26 October 2007

Copenhagen, Denmark



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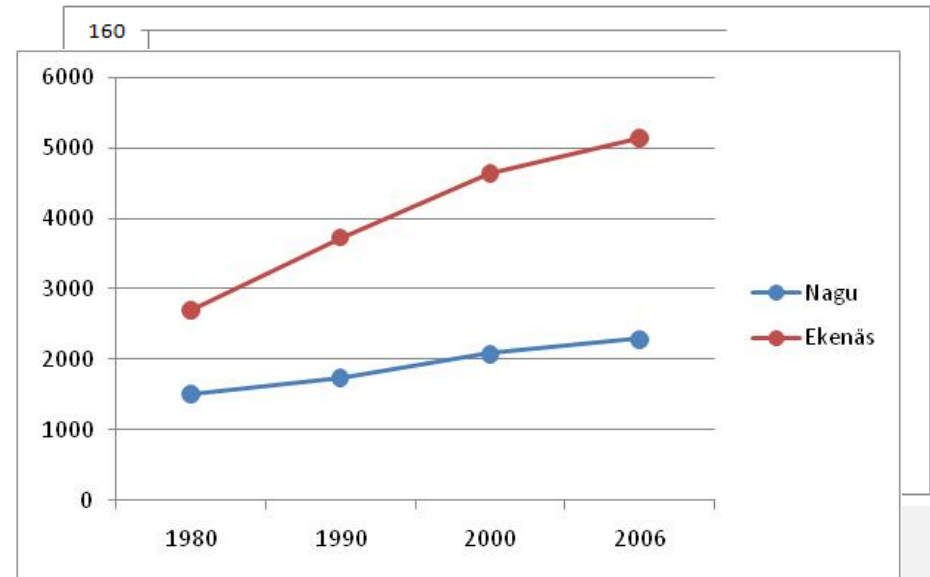


Jan Ekebon, Metsähallitus Natural Heritage Services, jan.ekebon@metsa.fi



Recent changes in the use of marine areas and marine activities in the Baltic Sea

- Maritime traffic
 - Large Vessel Traffic
 - Small Vessel traffic
 - Sea Plane traffic
- Infrastructure & Constructions
 - Shoreline buildings
 - Wind energy parks
 - Harbours
 - Cables
 - Pipelines
 - Nautical support structures
 - Bridges
- Marine Conservation
- Professional Fishing
- Aquaculture
- Recreational fishing
- Hunting
- Dredging/Extraction/Mining
- Military activities

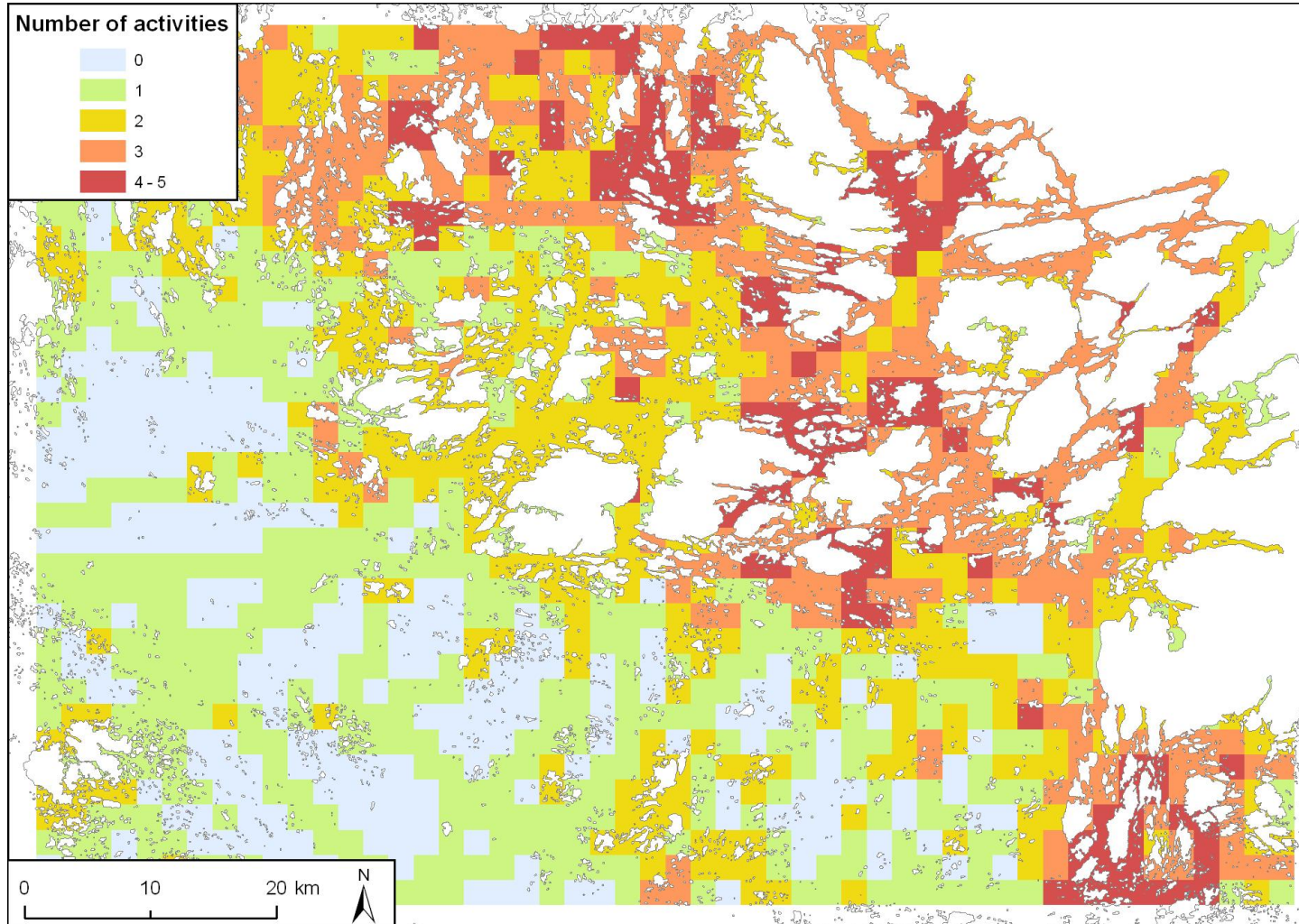


Recreational building in two municipalities in Finland (Tilastokeskus 2007)

Several human activities compete for the same marine space!



Overlapping use of marine areas is a serious problem in the Baltic Sea!



We need marine spatial planning!

*The best way to **solve conflicts** is to **prevent** them from occurring in the first place*

Our goal is to make a first significant step towards creating an easy to use, clear, well informed, and objective **marine spatial planning template** to facilitate in the planning and management of marine areas in the Baltic Sea

Considering how similar goals have been tackled elsewhere, we understood that **zoning** should be an essential component in this process



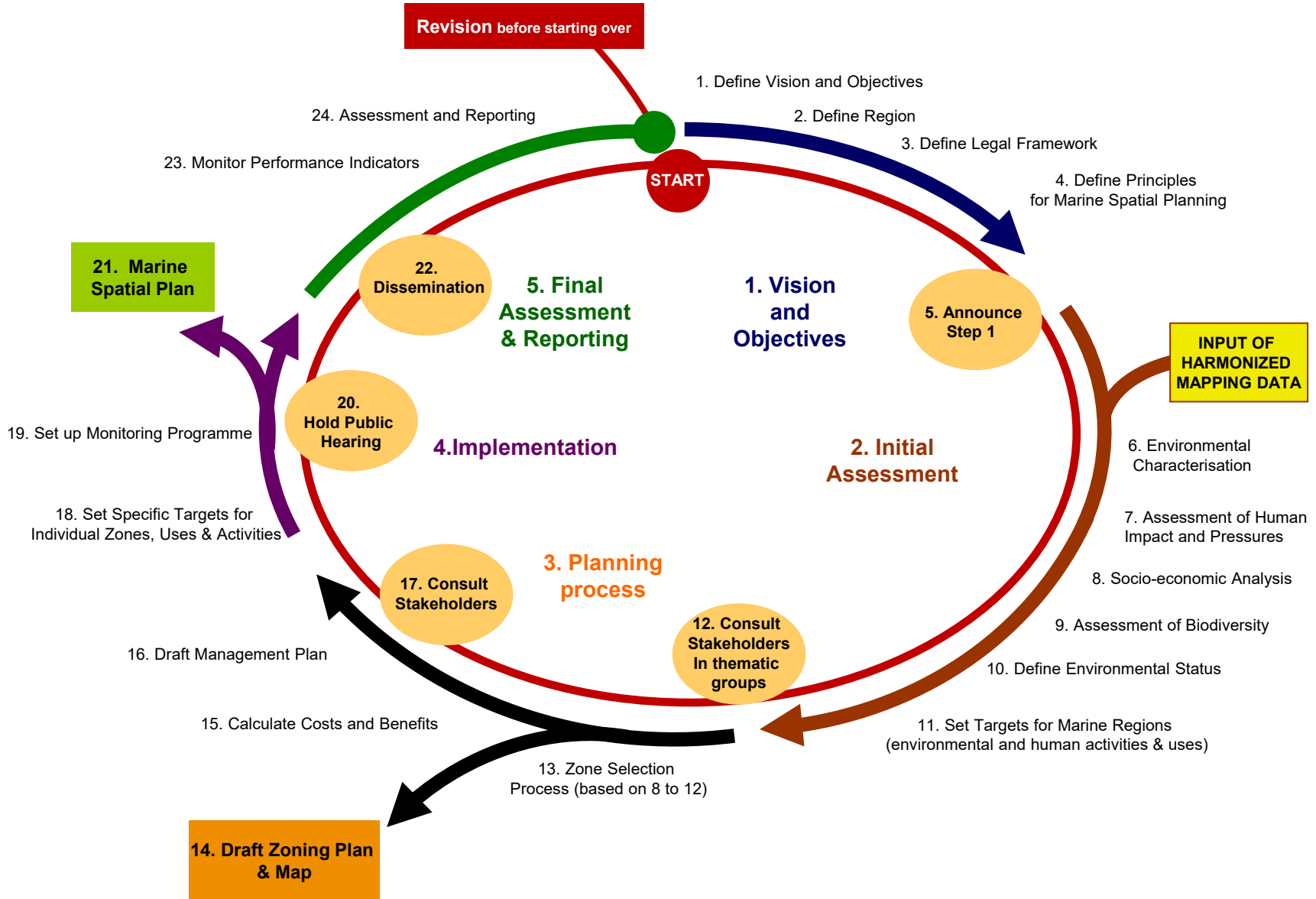
What do we mean by “Marine Spatial Planning” and “Zoning”?

Marine spatial planning is by Boyes *et al.* (2007) defined as “*plan-led framework, which enables integrated forward looking consistent decision-making for the use of the sea*”.

Zoning, defined by Day (2002) is “*a spatial planning tool that acts like a town planning scheme*” that “*allow certain activities to occur in specified areas but recognizes that other in-compatible activities should only occur in other specially designated areas and in this way zoning provides area-based controls and separates conflicting uses*”.



The BALANCE Marine Spatial Planning Template Applying Zoning



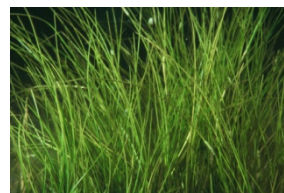
The relationship between Marine Spatial Planning (MSP) and other spatial plans

- The Marine Spatial Planning template & zones provide a base plan to which other spatial plans can be tied up to:
 - EU Marine Strategy Framework Directive & HELCOM targets (Baltic Sea scale)
 - WFD drainage area plans (sub-regional scale)
 - Natura 2000 site management plans (local scale)
 - National regional plans and town planning schemes



Advantageous features of the BALANCE MSP template

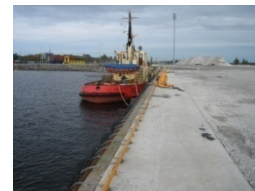
- The ecosystem approach to management of human activities is acknowledged (planning “*in balance with nature*”)
- Zoning is “built in” as a key component
- Cost & benefit calculations help to compare human activities
- Stakeholder communication and cooperation is a fully integrated part of the process
- The management performance monitoring provide quality control and make adaptive management possible
- Applicable at various spatial scales



Zoning

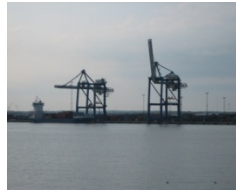
“ZONING” INCLUDES:

- Pressure evaluation matrixes (BD/human activities/regulations)
- Zone definitions
- A zoning table (with human activities/restrictions)
- “Status maps” (the current situation)
- Ecological and socio-economical analysis
- Stakeholder communications
- “Zoning maps” (new plan)

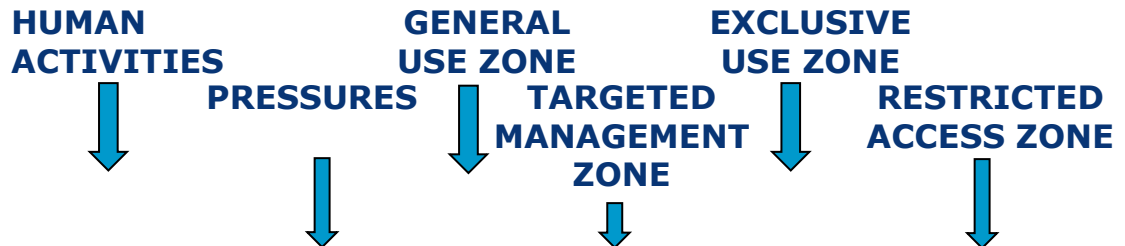


Zones defined by BALANCE

- **General Management Zone**
The General Use Zone allows all types of human activities or sea use to take place with exception of those specifically prohibited by law
- **Targeted Management Zone**
The Targeted Management Zone is an area subject to restrictions that extend further from the "normal" use of national and/or international legislation,
Examples: Natura 2000 sites, ship-lanes.
- **Exclusive Use Zone**
Within this zone only one type of human activity or sea use is allowed at a time, either permanently or temporary. **Examples: wind energy parks, fish farms**
- **Restricted Access zone**
A no-go zone. All entry is prohibited, except in an emergency or when first receiving a permission to enter. **Examples: Cultural heritage, seal protection areas, strict nature reserves, military training areas.**



Zoning table



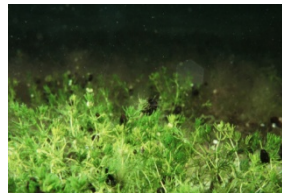
- Maritime traffic
- Infrastructure & Constructions
- Marine Conservation
- Professional Fishing
- Aquaculture
- Recreational fishing
- Hunting
- Dredging/Extraction /Mining
- Military activities

| HUMAN ACTIVITIES AND USES WITHIN ZONES | PRESSURES AND IMPACTS | | | | | ZONES | | | | |
|--|-----------------------|-----------------|--------------------------|---------------------|-------------------------|------------------------|----------------------------------|----------------------------------|--|---|
| | PHYSICAL LOSS | PHYSICAL DAMAGE | NON-PHYSICAL DISTURBANCE | TOXIC CONTAMINATION | NON-TOXIC CONTAMINATION | BIOLOGICAL DISTURBANCE | 1. GENERAL USE ZONE | 2. TARGETED MANAGEMENT ZONE | 3. EXCLUSIVE USE ZONE | 4. RESTRICTED ACCESS ZONE |
| see zoning plan and zoning maps for full details | | | | | | | | | | |
| MARITIME TRAFFIC | | | | | | | | | | |
| Large Vessel Traffic | | 3 | 2 | 3 | 3 | 3 | YES | YES, if no conflict | NO or Restricted | NO |
| Small Vessel Traffic | | 2 | 3 | 2 | | | YES | YES, if no conflict | Restricted | NO |
| Kayak/Canoe Traffic | | | 1 | | | | YES | YES, if no conflict | YES, unless in disagreement with the exclusive use (then NO or Restricted) | NO |
| Sea-plane Traffic | | | 3 | 1 | | | YES | YES, if no conflict | NO, Except when in agreement with the exclusive use (then YES or Restricted) | NO |
| INFRASTRUCTURE & CONSTRUCTIONS | | | | | | | | | | |
| Shoreline buildings | 3 | 3 | | 1 | 2 | 1 | Permit | Restricted + Permit | No, except when part of the exclusive use (Permit) | NO, unless part of the agreed use (Permit) |
| Windmills & Wind energy parks | 3 | 2 | 3 | | | | EIA/Permit + map, if no conflict | EIA/Permit + map, if no conflict | NO, except when part of the exclusive use (EIA/Permit + map) | NO |
| Harbours | 3 | 3 | 3 | 3 | 3 | 3 | EIA/Permit + map | Permit + map, if no conflict | NO, except when part of the exclusive use (EIA/Permit+map) | NO, except when part of the agreed use (EIA/Permit+map) |



Advantageous features of the BALANCE zoning

- Zoning regulations apply existing regulations
- Using only four zones make these easier to apply
- Existing uses of marine areas can be fit in to the four zones
- Planned uses of marine areas can be shown clearly
- Zoning is applicable at various spatial scales



Next steps

- The datasets for the environmental and socio-economical assessments are still insufficient, especially on sub-regional and local level
- In particular, the pressure evaluation matrix (impact distance estimates) and the cost-benefit assessment methods need further development
- The management performance monitoring need defined targets
- We need to test the tools we have developed in real-life situations (test phase)
- We should be ready to develop our methods based on our practical experiences and end-user feedback



Thank You!

WP4 partners:

[Juris Aigars,](#)
[Gunnar Aneer,](#)
[Peter Blanner,](#)
[Ulf Bergström,](#)
[Minna Boström,](#)
[Jan Ekeboom,](#)
[Christiane Feucht,](#)
[Michael Haldin,](#)
[Vadims Jermakovs,](#)
[Jenni Jäänheimo,](#)
[Marit Kindström,](#)
[Jonne Kotta,](#)
[Jochen Lamp,](#)
[Cecilia Lindblad,](#)
[Annelie Mattisson,](#)
[Georg Martin,](#)
[Johnny Reker,](#)
[Timo Pitkänen,](#)
[Alfred Sandström,](#)
[Martin Snickars,](#)
[Göran Sundblad,](#)
[Thomas K. Sørensen,](#)
[Ole Vestergaard,](#)
[Henrik Wichmann](#)

