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Recommendation of key topics to address in the Single Integrated Management Plan Wadden Sea World Heritage

Result from the site-managers interviews and the workshop in Tönning on 18-19 September 2019
Version from 8 October 2019

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1. Introduction

This document presents a summary of the results of the interviews and the site-managers workshop on 18-19 September and is formulated as a recommendation to the Task Group World Heritage (TG-WH) to select the key topics to address in the SIMP. No prioritization of the topics was done by the workshop participants.

2. General recommendations

2.1. Focus on the OUV

The focus of the SIMP is the World Heritage and therefore its OUV composed of the three criteria, the integrity and management requirements (Figure 1). In that core we discussed as key topics salt marshes, geological processes, bird and fish. As key aspects based on ecosystem services and need to be managed to maintain the OUV, we discussed fisheries, tourism, shipping, and activities related to coastal protection.

Furthermore, effects that originate outside the World Heritage property require management and socio-economic development needs to be sustainable. As key means to support management we recommend boosting communication, research, monitoring, education and partnerships. The guiding principle should be the guideline to decide on any management activity.

All key topics and the OUV are under the influence of climate change effects, and the respective mitigation and adaptation activities (Figure 1). Climate Change is therefore to be addressed in the SIMP as a cross-cutting topic.

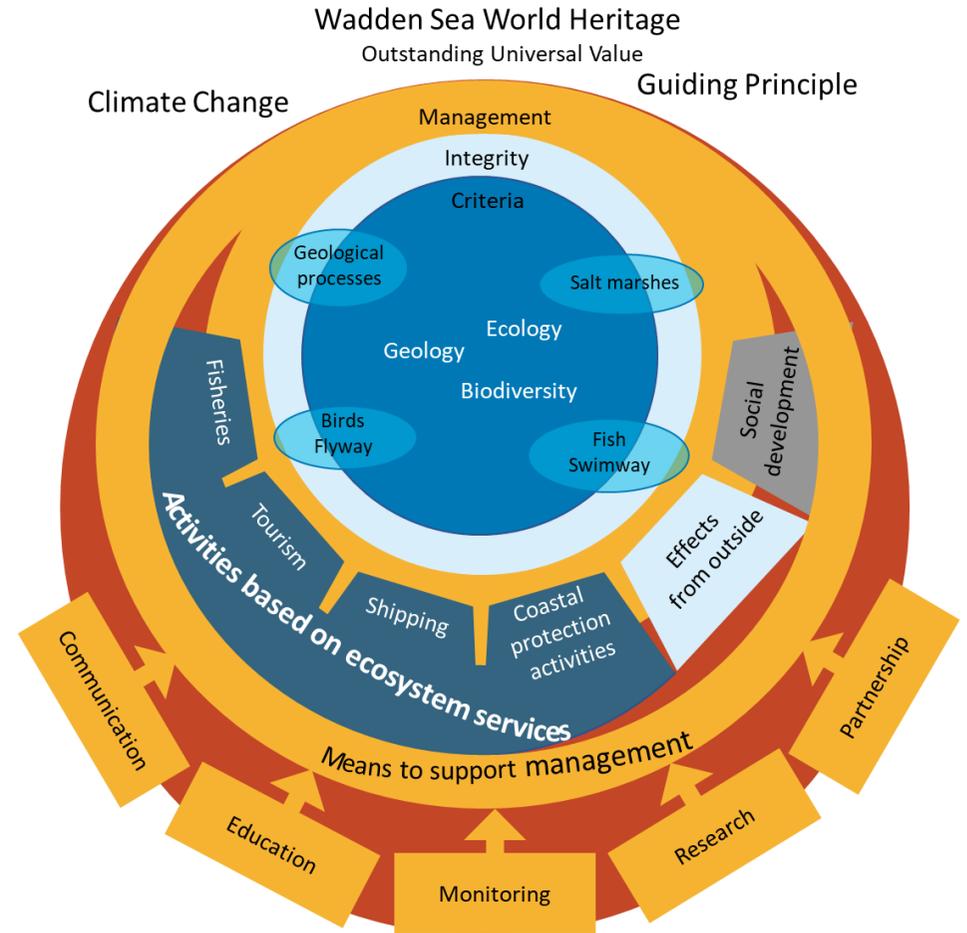


Figure 1. The focus of the SIMP is the OUV. Activities based on ecosystem services, effects from the outside and social development need to be managed to maintain the OUV. The means to support that management include communication, education, monitoring, research and partnerships.

2.2. Focus on the added value for managers, decision makers and public and communicate efficiently

In over 40 years of trilateral cooperation, some of the most urgent and important key aspects have been addressed and management is in place. The Wadden Sea Plan 2010 is the World Heritage management framework and various trilateral, regional and local strategies, management plans, plans of actions and networks exist. In short, a very high percentage of what needs to be done is on its way, though there are still serious shortcomings.

A clear and efficient communication is essential to strengthen the public awareness about the Wadden Sea and the importance of the trilateral work. Constant and powerful communication should be used to create a common sense of the importance and urgency of management, causing decision-makers to further engage.

Among the SIMP added values is the provision of a clear overview of the existing plans and strategies, organised in a way that is comprehensible, usable and accessible, which can be easily communicated on site managers level. The SIMP respects the autonomy of the local management authorities and it focuses on those aspects where trilateral cooperation is of added value for the OUV. It identifies and describes the common ground, what and why is implemented differently (but still according to the trilateral targets of the WSP) and will help the local managers in their challenges as well.

The SIMP added value is also to define feasible means to further the exchange of experiences, knowledge, lessons learned at different levels of management and among managers, decision makers,

volunteers, and interested public of the whole area, considering the time limitations.

In addition, exchange at different levels supports the development or update of trilateral initiatives and allows to connect existing and future trilateral with regional and local strategies and plans, showing how we work together and on which key aspects the cooperation could be further strengthened. Everybody contributes to the trilateral common vision. In that way local, regional and national actions are backed up at the trilateral level and trilateral decisions are integrated in the local, regional and national strategies and plans.

The SIMP added value is to address those the key topics of trilateral interest towards an adaptive balance between nature and socio-economic human needs (Figure 2).

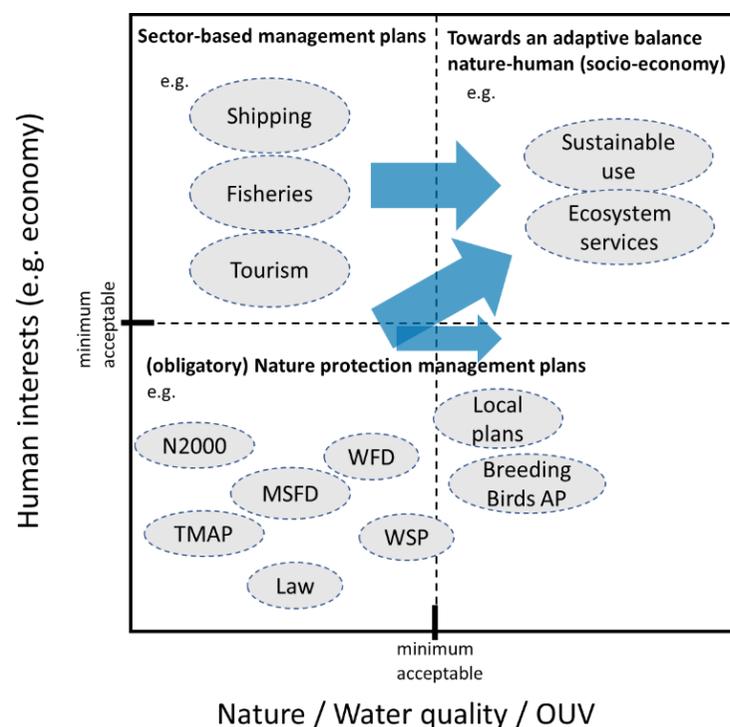


Figure 2. Management plans in relation to nature and human interests. To achieve sustainable shipping, tourism and fisheries a transition is needed accompanied by an appropriate monitoring.

2.3. The Guiding Principle

Since 1991, the Guiding Principle of the Trilateral Wadden Sea Cooperation is to „Achieve as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way “. This was and is key for successful and adequate protection, however the Guiding Principle needs better use:

- The SIMP could define „as far as possible“ for each different topic (what measures and activities are acceptable, what are not and under which circumstances).
- Additionally, present the need of defining an upper limit for human activities regarding the protection of natural processes.
- When restoration and revitalisation activities are deemed necessary, the Guiding Principle gives the direction.
- Linked also to the Guiding Principle, for the Wadden Sea there is a higher integrating ambition when compared to the usual interpretation of Natura 2000 rules. This means, that for the relevant management issues the implementation of this principle should be illustrated by formulating the key points for a targeted management, with the view to contribute e.g. to impact assessments.

See Annex 1: Guiding principle (p. 18) for opportunities, challenges and key actions resulting from the site-managers interviews.

2.4. Management understandable and visible

There should be a clear ambition that at the regional levels there should be a harmonised management throughout the Wadden Sea, with a clearly understandable and broad competence. This would include also having clear regional point of contact for stakeholders and the public. Corresponding with this, there are in many parts of the Wadden Sea already National Parks that cover nearly all the Wadden Sea area in the respective regions. With their goals and structure, aware also of the deficiencies still existing, these National Parks intend to put into practise the principles and objectives of Wadden Sea protection. The SIMP should give a clear push towards establishing or further developing such regional implementation tools for the World Heritage.

3. Key topics recommendations

The recommendations given in the points 3.1 – 3.6 are a summary of the most frequently mentioned key activities for each topic recommended by the site managers during the interviews. The summary is a mix of policy and management recommendations. These summarized recommendations could not be assessed conclusively in their entirety by all interviewees and workshop participants; therefore, they do not stand as recommendations that can be supported by all (at least in their current wording).

Annex 1 of this document presents the integrated summary of the interviews organised by topics and addressing opportunities, challenges and key actions.

3.1. Recommendations on climate change as a cross-cutting aspect

In the long run the greatest danger for the preservation and integrity of the World Heritage Wadden Sea and its OUV is caused by climate change and the accelerated sea-level rise associated with it. It is aimed for to keep the size of the Wadden Sea at least on the level of today, despite sea-level rise. The measures required for this should be based on the principle of minimal intervention and, for pre-damaged habitats, also on the principle of quality improvement.

- Differentiate and address both: mitigation (with policy makers) and adaptation (with managers).
- Organise and maintain the means to share experiences and knowledge constantly (including preliminary results of ongoing studies) as an added value for site managers.
- Promote the development of trilateral targets based on the Trilateral Climate Change Adaptation Strategy (MCD 2014) and including how to handle economic developments that are drivers to climate change.
- Develop an overview on the existing strategies and studies on climate change in the Wadden Sea.
- Connect the Trilateral Climate Change Adaptation Strategy (MCD 2014) and the existing local, regional and national climate change strategies to assure its application and enhance synergy.

- Apply the Trilateral Management and Action Plan for Alien Species (MAPAS) and communicate effectively to stakeholders and the broader public.

See Annex 1: Climate change (p. 20) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.2. Recommendations on nature key topics

3.2.1. Geological processes

- Regard and interpret better natural geological processes to design management tasks from the World Heritage point of view (currently mainly designed from the coastal protection and shipping perspective).

See Annex 1: Geological processes (p. 23) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.2.2. Salt marshes

- Share experiences, knowledge and lessons learned from the different management approaches.
- Develop a trilateral common vision and best practices that can be adapted locally.
- Promote and manage research to improve the understanding of the function of salt marshes as an important habitat in the life cycle of birds and fish.

- Making salt marshes more natural shall include more than the actions previously thought, considering also the water management.

See Annex 1: Salt marshes (p. 24) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.2.3. Birds

- Share experiences and knowledge among managers, research institutions and beyond the Wadden Sea (trilaterally there are good examples about protecting and restoring habitat for breeding birds).
- Improve research and interpretation of data to enhance a comprehensive understanding of the life cycles of birds and their relation to the Wadden Sea system and dynamics. The current monitoring of numbers works well.
- Compile the information that is currently sporadic, fragmented and spread, make it accessible and improve the communication of information available (e.g. the trilateral bird reports).
- Develop an action plan for migratory birds.
- Research about the declining breeding bird numbers due to predation (see Breeding Birds action Plan) as a basis to later define effective management measures where needed.
- Design and implement management actions to keep predation on breeding birds on a natural level.

- Establish resources to assure all parties are able to implement the Flyway Initiative and to maintain collaboration with universities in long-term key studies.

See Annex 1: Birds (p. 25) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.2.4. Fish

- Share experiences and knowledge to learn the perspectives and solutions that every country has.
- Establish collaboration, coordination for research and improve studies and interpretation of data to enhance a comprehensive understanding, identify and tackle the current gaps of knowledge about non-commercial and commercial fish species, migratory routes, possible bottlenecks and the precise role of the Wadden Sea ecosystems on the life cycle stages of fish.
- Develop a map of bottlenecks for fish in the Wadden Sea Region, including management options.
- Compile the information that is currently sporadic, fragmented and spread, make it accessible and improve the communication of information available.
- Analyse historic information in order to show the natural situation of fish and their habitats in the Wadden Sea, to counter the shifting baseline in the views of the managers of today and tomorrow.

- Apply the Trilateral Wadden Sea Swimway Vision Action Programme considering a learning by doing and precautionary approach, based on the guiding principle by letting the natural dynamics act after removing existing threats and barriers.
- Improve monitoring by including a trilaterally implemented assessment of the established fish monitoring (in Germany and the Netherlands and no monitoring in Denmark) of the fish parameter in TMAP.
- Establish resources to assure all parties are able to implement the Swimway Vision and to maintain collaboration with universities in long-term key studies.

See Annex 1: Fish (p. 27) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.3. Recommendations on activities based on ecosystem services

3.3.1. Fisheries

- Compile existing information to form a common knowledge base on how each country and region is managing fisheries (agreements, transition management, projects), socio-economic and organizational information of the fishers.
- Share information on lessons learned about management systems: what did and did not work when managing fisheries.
- Define concrete actions to apply the Framework for sustainable fisheries (MCD 2014).
- Implement Natura 2000 and other nature legislation with respect to fisheries where this has not yet been done properly.
- Develop a common vision, e.g. with a view for the year 2030, with a clear and agreed definition of sustainable fisheries both with respect to how nature in the Wadden Sea should look like and how fisheries could be viable. The vision should be developed together with the fishermen, managers, green NGOs and authorities, based on the Framework for sustainable fisheries in the Wadden Sea (MCD, 2014). Thereby, the goals of the Marine Strategy Framework Directive (MSFD), specifically D6: Sea-floor integrity should be considered. Likewise, the interactions of the biological, the economic and social systems should be considered, so that the vision comprises a socially acceptable activity with a local benefit and added value. The common vision must be made in a way that is possible to evaluate progress and adapt when necessary. The speed and the ways to achieve the vision depend on each country.
- Define sustainable fisheries in the framework of the Wadden Sea World Heritage based on the existing protection goals (i.e. in line to the guiding principle, in the WSP2010, national legislations, conservation and management objectives of the national parks and EU directives) and in line with the Framework for sustainable fisheries (MD 2014).
- Establish and maintain dialogue with fishers, NGOs, universities, the respective ministries in each country and

region to design together the steps towards a sustainable fishery.

- Form a group at the trilateral level as the platform for dialogue (in addition to the existing regional fishery advisory boards on e.g. the North Sea level).
- Agree, together with fishers, researchers and NGOs on best practices to achieve sustainable fisheries. These should be implemented in a consistent way in the Wadden Sea area.
- Research to test potential alternatives conducive to a sustainable fishery (to reduce benthos disturbance and bycatch, to reduce marine litter, to fish at a sustainable yield, to reduce energy use).
- Calculate and assure funds to cover the cost of implementing best practices.
- Monitoring and research to learn from the dynamics inside the Danish Wadden Sea and other areas closed to fisheries and its benefit to the larger region.

See Annex 1: Fisheries (p. 29) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.3.2. Tourism

- Support the further implementation of the sustainable tourism strategy.
- Continue to share experiences on how to manage an increasing tourism and its effects on the environment and the

local population (including the pros - among other: tourism mitigates the development of other uses with negative effect in specific areas and are an excellent tool for education and awareness. And the cons: growth is driven by touristic capacity and touristic activities are not always consistent with the World Heritage, among other).

- Discuss and describe the need of an upper limit for human activities in regard of the protection of natural processes.
- Conduct studies to calculate how much tourism can the area take? Studies on limits of acceptable change (see PROWAD LINK), how to manage the increasing tourism (e.g. spread pressure over several sites or concentrate it in a few sites? How to set limits?) to prevent harming the OUV, the touristic product, the visitor experience and the residents.
- Continue to quantify and monitor the benefit of the World Heritage and the National Parks to tourism at trilateral level and communicate the results. The quantification of the benefit will contribute to increase the appreciation on the OUV among the people working with tourism.
- Develop common agreements on how to handle expected economic or touristic developments and what are “No Go`s”. Do this periodically. Expected developments can be an increasing use of drones, increasing number of companies offering bicycles and scooters for rent in the islands, among other.

See Annex 1: Tourism (p. 32) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.3.3. Shipping

- Share experiences, knowledge and existing strategies to eliminate or reduce the effects of shipping and dredging on the World Heritage. For example, by adapting the capacity and frequency of ferry trips to the tides. As well as to reduce garbage from fisheries (specially dolly ropes) by working together with the fishers.
- Make the PSSA Wadden Sea viable by developing and agreeing on “Associated Protective Measures” to be decided upon by IMO.
- Develop a common vision and an agreement on how to address port expansion and management, dredging and dumping, energy use and other related issues to reduce impact.
- Improve the communication about the existing plans for action in case of accidents at sea (see Central Command for Maritime Emergencies-Havariekommando) and when necessary, develop a more ambitious plans and trilateral coordination for action, based on the existing bilateral efforts (who to contact, available resources/equipment to share, optimal communication).
- Establish an international volunteer management structure to better organize their collaboration on campaigns where many

people are needed (e.g. clean beaches after container accident MSC Zoe).

- Promote research directed to best practices to reduce the impact of shipping (pollution through gases and garbage, deepening and sedimentation) and implement results.
- When possible and necessary, support each other to enable the application of certain measures to assure the implementation and respect of zoning schemes.

See Annex 1: Shipping (p. 35) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.3.4. Coastal protection activities

- Share experiences, knowledge and lessons learned in an effective way (exchange among the different organizations responsible and with the expert group salt marshes and dunes).
- Develop a common trilateral vision (e.g. based on “soft coast”) and best practices adaptable to each region to implement the Guiding Principle as good a possible in coastal protection, with a view that all measures should preferably serve both people and nature. (link to the Climate Change Adaptation Strategy and the expert group climate).
- Promote research directed to best practices and sustainability.

See Annex 1: Coastal protection activities (p. 37) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.4. Recommendation on social development

- Develop a common vision/plan on how to guide a sustainable local development (best practices to live like a world heritage citizen at the mainland and islands) considering the social implications of climate adaptation measures as well.
- Communicate in a clear and engaging way the linkages and consequences of certain actions and behaviours (in relation to climate change, coastal protection, etc.) to the World Heritage area.
- Communicate in a clear and engaging way the benefits (ecosystem services) that the Wadden Sea World Heritage provide to the people living in the surrounding area and to the world.

3.5. Recommendations on effects from outside

- Develop a common vision on how to address and mitigate impacts that originate outside the World Heritage. Consider working with the agricultural and fisheries sector to explore how to compensate the cost of an additional effort for applying measures to reduce contamination and motivate them to act in favour of the World Heritage.
- Develop a trilateral agreement/policy that is applied to all projects regarding where to lay pipes and cables.

- Research to test and quantify the impact of pollutants, nutrients, neonicotinoids, antibiotics coming from intensive agricultural activities outside the area.
- Share experiences, knowledge and lessons learned.

See Annex 1: Effects from outside (p. 39) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.6. Recommendations on the key topics that support management

3.6.1. Communication

- Manage and maintain an active and effective communication inside the TWSC (share experiences and knowledge at different levels: task, expert, network, steering groups and at the operative level through communities of practice for example).
- Design a way to go beyond exchanging experiences and knowledge in order to adapt information into useful actions.
- Review and update the Trilateral Communication strategy.
- Review and improve messages and communication products about ONE Wadden Sea and the TWSC and in collaboration with the parties (see also Education).

See Annex 1: Communication (p. 41) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.6.2. Education

- Implement the “Wadden Sea Strategy on Education for Sustainable Development and World Heritage Interpretation”, which means e.g. also to strengthen environmental education and nature experience even more than is achieved already today, and to continue the sharing of experiences and knowledge.
- Maintain the training of multipliers to pass unified messages about the World Heritage.

See Annex 1: Education (p. 43) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.6.3. Monitoring

Monitoring is the basis for identifying where there is need for action, for sound decision-making and evaluation of the effectiveness of measures taken. A comprehensive monitoring is a cornerstone for the management within the Wadden Sea. At the same time, the success of the following actions needs the motivation and engagement of the people and institutions involved.

- Reinforce TMAP by:
 - commonly agreed World Heritage driven monitoring goals connected to the OUV (what data do we need as a World Heritage site and how to get organised),
 - defining the OUV criteria in a measurable way (practical: catalogue of test criteria). Compare these to

the parameters considered in the EU Directives and if deemed appropriate align them in order to operationalize monitoring and optimize available resources.

- designing, planning and maintaining a useful long-term data base,
 - improving analysis and interpretation of results presented in the QSR.
- Agree on a way to improve the standardisation of data acquisition (review and update the TMAP handbook).
 - Share knowledge and technologies that can improve monitoring, information in general, data accessibility and comparability.

See Annex 1: Monitoring (p. 44) for opportunities, challenges and key actions resulting from the site-managers interviews.

3.6.4. Research

- Develop a common trilateral agreement together with researchers to attain the research needed for management of the World Heritage site and its OUV (develop together the research questions for management). This also means to connect the Trilateral Research Agenda with the management needs (joint effort from research and the trilateral cooperation).

- Address some important knowledge gaps, e.g. the underwater world (seabed and water column) and an integrative view of the ecosystem and its surroundings.
- Improve the interpretation of monitoring data and the communication of the Quality Status Report (QSR) as a trilateral product.

3.6.5. Partnership and ownership

- Explore and design the means to improve the feeling of ownership of the World Heritage inhabitants, users, decision makers and managers.
- Promote partnerships at the regional, national level, e.g. by the National Parks' partnerships, as well as linking to the trilateral level through the Partnership Hub.

3.7. Recommendation on flagships initiatives

- Use flagship topics and projects to exemplify how the key topics that support management are being used in benefit of the OUV and to address our international responsibility.
- In the workshop discussed flagship topics were marine litter, Flyway and Swimway. Another suggested topic was climate adaptation.

3.8. Remark on the underwater world nature management

Trilateral marine nature policy and management (management of the underwater world) is under development following the approach of the Flyway Initiative and the Swimway Vision. In the future, the

underwater world nature management will add to the SIMP in a similar way.

3.9. Recommendations on exchange of experiences and knowledge

- Identify all the trilateral network groups where exchange of information takes place and determine gaps of representation, in particular in cases where such exchange would support a better protection.
- Strengthen the existing means of information exchange such as expert groups, the process of elaboration of the QSR, the Wadden Sea Day and other conferences and symposia, as well as site-managers and wardening workshops.
- Establish pilot communities of practice (CoP) formed by groups of people that share a common aim in a specific area of expertise. CoP will exchange information by using a round table approach. The shared information should be specific, so the participants can apply it in their jobs.
- Apply to future Interreg projects for maintaining CoPs in the long-term and strengthening communication.

Workshop participants

Name	Institution
Heidi Nielsen	Danish Environmental Protection Agency
Anne Krag Svendsen	Danish Wadden Sea Secretariat, representing the Danish Wadden Sea Municipalities
Margrita Sobottka	Lower Saxony NPA, Germany
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Janina Schrader	Schleswig-Holstein NPA, Germany
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Michiel Fiet	Staatsbosbeheer, Netherlands
Wim Schoorlemmer	Ministry of LNV and PRW, Netherlands
Carolin Galler	Niedersächsisches Ministerium für Umwelt, Energie, Bauen und Klimaschutz
Björn Marten Philipps	Schutzstation Wattenmeer
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Integrated summary results of the conversations with site-managers, representatives of the Wadden Sea Forum and the Wadden Sea Team of green NGOs

Introduction

This draft document presents the integrated results of the conversations with site-managers, representatives of the Wadden Sea Forum and the Wadden Sea Team of green NGOs. The information of this document served as input to our discussions in the site-managers workshop on 18-19 September in Tönning. The conclusions of the workshop are the base for the Task Group World Heritage (TG-WH) to select the key management topics to focus on in the Single Integrated Management Plan (SIMP) following agreed selection criteria. These results will be presented to the Wadden Sea Board (WSB) in November 2019 and the content of the selected key management topics will be further developed during 2020. The document starts with background information on the process of development of the SIMP and then presents the integrated answers organized by key topics.

Background

The Leeuwarden Declaration 2018 includes the task to develop a single integrated management plan for the Wadden Sea World Heritage as requested by the WH Committee in 2014. The single integrated management plan shall provide a clear overarching framework that can be easily read and understood by stakeholders and the general public. The single integrated management plan for the Wadden Sea World Heritage property will focus on overarching issues to be managed with priority and in a consistent way across the property to maintain the OUV and protect the area's natural values and integrity. The starting point for the further development of the SIMP is a preliminary structure agreed by the Wadden Sea Board in March 2019 (Annex 1).

In the process of development of the Single Integrated Management Plan (SIMP), we are now at the stage of identifying the essential management aspects to address in the plan and to find ways of working together at the trilateral level. The Wadden Sea Board requested to involve site-managers, and members of the Wadden Sea Team of green NGOs and the Wadden Sea Forum in this process. In this context, 27 site-managers from Denmark, Germany and the Netherlands were asked the following questions:

1. Based on your experience, what are the topics/aspects where management needs to be (or can be) enhanced?
2. How can the Trilateral Cooperation support to improve the management of those issues? Can you mention practical examples on how to work together?
3. What are key actions to conduct at the trilateral level? and at the national or regional level?
4. What are potential challenges to enhance the trilateral management of the aspects that you mentioned?
5. What are opportunities?
6. Gaps: Are there important aspects that are not being managed?

Thank you to the interviewed site-managers:

Anne Husum Marboe	The Wadden Sea National Park, Denmark
Henrik Pind Joergensen	Danish Environmental Protection Agency
Heidi Nielsen	Danish Environmental Protection Agency
Caroline Vestergaard Mikkelsen	Danish Environmental Protection Agency
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Key topic **Guiding principle**

Description	“Achieve, as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way”. Ecology point of view: Reduce negative pressures to improve natural processes.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> In the Netherlands, a strategy was developed that presents a vision on the way we should manage Wadden Sea. There we have the ecosystem approach as a basis, and we point out the dynamics and processes should go as natural as possible. The measures should focus on diminishing the pressures and then nature takes care of itself. There are still some projects where nature needs to be helped, but the priority should be on reducing the pressure factors from human activities.
Germany	
Denmark	<ul style="list-style-type: none">
Trilateral	<ul style="list-style-type: none"> Existing trilateral agreed efforts like the breeding birds action plan (should have the only role to helping restore more natural conditions so that the birds can breed as natural as possible/no artificially introduced predators) Existing TWSC working-, task- and expert-groups addressing some of aspects from the guiding principle perspective.

Challenges
<ul style="list-style-type: none"> We need a World Heritage framework to manage the Wadden Sea. We have N2000, we have the water framework directive, and the marine strategy directive (the Netherlands doesn't). These is the frame in which countries can take measures, but the Wadden Sea is a World Heritage assigned on the basis of the natural processes, the dynamics etc. There is some shortage in being able to manage Wadden Sea World Heritage in that way because we have these other frameworks. Maybe we need to work better together to manage the OUV. The management game: improving conditions to benefit only some species without considering the natural processes.

Gaps
<ul style="list-style-type: none"> A general gap is the lack of definition in the Guiding Principle. The Guiding Principle gives a sense that there are restrictions (behind “as far as possible”), but what that exactly means is not defined. This is not easy since depending on the urgency and importance of the different situations what is acceptable and what is not, might differ from case to case.

Key actions
<ul style="list-style-type: none"> Define „as far as possible“ in the SIMP and for each different topic (what is acceptable and what is not). Present the need of an upper limit for human activities in regard of the protection of natural processes. Use the guiding principle in restoration and revitalisation activities, when and where they are deemed necessary.

- Adapt human activities to promote natural processes to take place instead of adapting nature to respond to human activities. For example: now we are dredging big amounts of sediments to provide access to big ferries. An alternative approach to address the ferry accessibility issue is to become tide based: only sail when the tide is high. This saves money and restores the natural sedimentation dynamics in the area. In some islands in Germany, tide dependent schedules for ferries are being used. Another alternative to address the ferry capacity issue is to have big cargo ferries for big and small cars and the supply for the islands only once per time.

TWSC support to improve management

- Define in the SIMP certain exceptions that are in line with the Guiding Principle (what and when is it acceptable to implement some management measures that might interfere with the natural processes).

Description	Alien species, sea level rise, increased storm intensity and frequency, temperature variations, disturbance on geological processes (Criterion viii).
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • Political and societal interest. • Climate change, in terms of sea level rise, speed of rise, temperature and storms frequency, is part of the programme Towards a Rich Wadden Sea (https://rijkwaddenzee.nl/). • Some preliminary measures are in place in the Dutch Wadden Sea: <ul style="list-style-type: none"> ○ sand nourishment (in the North Sea side of the islands. Includes active monitoring on the interaction with the natural processes and effects, e.g. grain size is getting larger) ○ mud clay nourishment ○ salt marshes succession (including monitoring and research about the optimal conditions for salt marshes growth, the effect of human activities and bioengineers on the speed of sedimentation rates and interaction with coastal defence: integrated approach of having salt marshes for biodiversity and coastal protection). • Experiments for climate adaptation (using silica to improve water management, utilizing the natural dynamics in benefit of people's land and activities, coastal defence together with the population). • Program "Big waters". Collaboration between the Ministries I&W and LNV to address the negative effects of the hard substrate dike and to improve the water quality (coupled with an initiative to include areas with brackish water to improve fish migration). • Experience of RWS colleagues building a double dike in the Dollard (agriculture and sedimentation pond: nature and economic development). • RWS is part of EC-C, RWS and LNV are part of WSB.
Germany	<ul style="list-style-type: none"> • Schleswig-Holstein has a climate change strategy. It includes the state of scientific knowledge, potential scenarios of the impact of sea level rise on the ecosystem and hence on the society. • Schleswig-Holstein wants to set out to increase its share of regenerative energy by 2030. • 2050 Schleswig-Holstein wants to be climate neutral. • There are corresponding strategies in the Districts and in the Municipalities in Schleswig-Holstein. • The Dithmarschen district has a climate protection concept focused on responsible consumption and applied in the District administrative buildings, in local schools, etc. • Development concept for the island Neuwerk is being worked on. Unfortunately, politically is not yet regarded as important as it should. • Schleswig-Holstein is developing at the regional level a plan for placing windmills farms.
Denmark	<ul style="list-style-type: none"> •
Trilateral	<ul style="list-style-type: none"> • Political and societal interest. • Trilateral groups addressing climate change adaptation: EG-C, TG-M and ad-hoc group Alien Species.

	<ul style="list-style-type: none"> • Trilateral Management and Action Plan for Alien Species (MAPAS). Implementation is in progress. • TG-M and the ad-hoc group Alien Species have the task to: define the parameters regarding alien species for the TMAP, make a trilateral accessible platform (sitting in CWSS), define early response measures, and build a network. • World Heritage is used as a support to protect the area in the face of climate change and other related impacts. For example: letters from NGOs to UNESCO alerting about potential impacts to the OUV (e.g. deepening of the Elbe). • There are experiences and knowledge from different projects in the different countries (Aeolic powered sediment transport to develop natural dunes in islands (still the question is how much can we interfere with the natural dynamics?)). • Trilaterally agreed guiding principle but needs definition of “as far as possible”. • Wadden Sea Region to become climate neutral until 2030 (trilateral decision in 2010!). • Climate neutrality is now on the global discussion in different levels.
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Challenges	
	<ul style="list-style-type: none"> • Political and societal interest. • Governments and agencies tend to ignore or neglect climate change adaptation actions, therefore, plans and actions don't receive the required monetary and human resources. • How to address the conflicting practices (e.g. dredging) that take place in borderline river. • Address the different political levels: global (UN, IPCC), local (districts, municipalities), regional (national parks, states, provinces) and trilateral (ministries, WSB). • Take in account the contrasting cultures, differences languages and legal systems among the three countries that affect perceptions and approaches to act. • Climate change is still an abstract concept for the general public. How to effectively convey messages motivating a change in behaviour? • How to manage the conflicting messages sent to the public by allowing dredging after a call of attention from the green NGOs and the importance of conserving the World Heritage? • Climate change is the -by far- most important threat that we have with potential to destroy the Wadden Sea World Heritage entirely (50-150 cm sea level rise by 2100). • How to keep a Wadden Sea system in a continuously rising sea level and with the least possible effect on the natural dynamics? “Growing with the Sea– with measures which serve both nature AND safety of people, and which are as close to natural processes as possible”. • In what ways will the natural geological processes react to the combined effect of climate change and dredging for shipping lanes and harbour expansion? • Install as soon as possible an adequate long-term monitoring that best informs about the effects of climate change and the effects of adaptation actions (e.g. building with nature). • Include parameters to monitor alien species in TMAP. • Implement the MAPAS.

Gaps	
	<ul style="list-style-type: none"> • More studies are needed and constant sharing of preliminary results among parties and beyond.

Key actions

- Exchange of experiences and knowledge at different levels of management and among stakeholders in order to:
 - know if all the parties in the WS have the same perspective about the effects of climate change (on birds for example),
 - be aware on how every country and state is dealing with dynamic coast management and climate adaptation on a local practical level,
 - assure that we are taking the necessary measures across the whole area
 - identify where we don't have a solution and what do we need to do and
 - bring the examples of the three countries together (e.g. initiatives of sustainable energy production from waves, tides, underwater kite flyers, windmills and clean alternatives to traditional practices such as "explulsé" which at low tide flushes at once the water collected during high tide to clean the shipping line naturally).
- Interconnect the trilateral Climate Change Adaptation Strategy (CCAS, 2014) and the regional and national strategies by:
 - defining common best practices that can be adapted by each party for effective application and
 - providing a clear overview on how we are working together, how are actions related and what are the organizations involved.
- Agree on a common vision on how to handle the economic developments at the coast and the World Heritage.
- Effective communication (innovative means and good timing) and awareness raising among inhabitants of the Wadden Sea World Heritage through providing concrete threat scenarios and actions they can take, as well as the benefits of the management actions that are being taken.
- Advocate for the improvement of public transport and cleaner energy alternatives (electric/hydrogen cars and stations to charge).
- Support pilot projects to evaluate adaptation actions and the sharing of preliminary results.
- Investigate and take in account the socio-economic consequences of climate adaptation measures, overall related to the islands (e.g. island economy affected by improved connection to the mainland).
- Apply MAPAS and communicate effectively to stakeholders and the broader public.

TWSC support to improve management

- Deal with the fact that sea level will rise and be prepared to continuously adapt.
- TWSC can help on improving the understanding that we are one World Heritage and that we can learn from each other.
- Political influence. Support in negotiation with the respective authorities by emitting a common position on how we deal with the geological processes' criterion in the light of climate change.
- Support in communication to the general public by emitting a common position.
- Support the CWSS in designing together with managers and stakeholders, implementing, adapting accordingly and maintaining a method or tool to optimise constant exchange of experiences and knowledge.

Key topic Geological processes

Description	Natural processes, geology criterium
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Opportunities	
The Netherlands	•
Germany	
Denmark	•
Trilateral	• OSPAR focuses on monitoring and managing pollutants.

Challenges	
<ul style="list-style-type: none"> • How to improve the consideration of the natural geological processes in management actions? Abiotic aspects like the morphodynamics are left under the responsibility of the Coastal protection specialized authorities and the Waterways administrations. They have different perspectives on nature management and conservation. • Geomorphodynamics are at risk, due to port extensions and dredging. 	

Gaps	

Key actions	
<ul style="list-style-type: none"> • Regard and interpret better natural geological processes to design management tasks from the World Heritage point of view (currently mainly designed from the coastal protection and shipping perspective). 	

TWSC support to improve management	
<ul style="list-style-type: none"> • Trilateral approach for improving the attention of the geomorphologic dynamics in management actions. 	

Key topic Salt marshes

Description	Salt marshes and dunes development
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> Ems-Dollard sediment management plan as a good example of bilateral collaboration in an integrated approach
Germany	
Denmark	<ul style="list-style-type: none">
Trilateral	<ul style="list-style-type: none"> Fish are considered in the Water Framework Directive: the Wadden Sea has a function as a spawning ground. Countries implement measures in this regard.

Challenges	
<ul style="list-style-type: none"> Every country has different approaches and different ways of action to restoration of formerly used areas. 	

Gaps	

Key actions	
<ul style="list-style-type: none"> Share experiences, knowledge and lessons learned from the different management approaches. Develop a trilateral common vision and best practices that can be adapted locally. Promote and manage research to improve the understanding of the function of salt marshes as an important habitat in the life cycle of birds and fish. 	

TWSC support to improve management	
<ul style="list-style-type: none"> Coordinate exchange of knowledge and experiences at a trilateral level, agree on best practices that can be adapted to the local/national conditions. Apply them and monitor. 	

Key topic **Birds**

Description	Flyway, breeding birds, migratory birds, predators, continuous decline of bird stocks.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> Action plan for breeding birds based on the QSR report.
Germany	<ul style="list-style-type: none"> Monitoring of the numbers of birds works very well. There are university studies investigating the survival rates of some bird species, but resources are needed to maintain these in the long-term.
Denmark	<ul style="list-style-type: none"> Experiences to share on grazing projects for improving the ecosystem in areas for breeding birds (with local farmers, controlled and managed grazing -managed in terms of surface, time, number of animals, and type of cattle). In Denmark the good social and ecological results have achieved the political support for this kind of management, therefore it will be further implemented.
Trilateral	<ul style="list-style-type: none"> Flyway is a great example for showing the global importance of the Wadden Sea. It is a tool that allows to conserve and gather knowledge at a larger scale. The Flyway Initiative carries the key message of global collaboration and interconnection (i.e. if one of the stopover sites fails, whether it is the Wadden Sea or the mangrove areas in Mauritania, then it has profound implications. If the sea level rises and the area of the tidal flats is halved, then the feeding ground is only half as big. This has serious effects on the birds, and at the same time conveys a strong message of co-responsibility). There is a trilateral breeding bird action plan. There is an important number of people studying birds in the Wadden Sea and producing valuable information.

Challenges
<ul style="list-style-type: none"> Improve communication of good examples and studies among the three countries and among researchers and managers. How to secure resources to maintain studies in the long term and cover important gaps of information about migratory birds that inform effective action plans (for example the breeding bird action plan is based on the knowledge that the production of young birds per year was not enough)? How to deal with the massive Immigration of bird predators to the Halligen due to improvement of special “Lorendams” (now the Halligen are less isolated places and there is an important loss of breeding birds).

Gaps
<ul style="list-style-type: none"> We lack a bigger integrated picture about how species use the Wadden Sea habitats and where is redundancy of habitats that can be used in case an area is affected. For example, every year thousands of moulting ducks occupy resting areas where they can forage. If these resting areas are affected, where else in the Wadden Sea can these thousands of moulting ducks go? We need to coordinate and be aware of all the areas with the same or similar characteristics in the Wadden Sea that can provide the same benefits that these ducks need

(as an example). If for instance there is an oil spill that affects an area, do we have a redundancy of habitats with certain specific characteristics that can cover the needs of the displaced species? we don't yet look at the Wadden Sea in an integral way. In an integrated management plan, we should address this.

Key actions

- Share experiences and knowledge among managers, research institutions and beyond the Wadden Sea (trilaterally there are good examples about protecting and restoring habitat for breeding birds).
- Improve research and interpretation of data to enhance a comprehensive understanding (the big picture -> QSR?). Current monitoring of numbers works well.
- Compile existing information; currently sporadic, fragmented, spread - and make it available for everybody in addition of the content of the existing trilateral bird reports (and/or better communication of the trilateral bird reports).
- Develop an action plan for migratory birds.
- Research about the declining breeding bird numbers due to predation (see Breeding Birds action Plan) as a basis to later define effective management measures where needed.
- Establish resources to assure all parties are able to implement the Flyway Initiative and to maintain collaboration with universities in long-term key studies.

TWSC support to improve management

- CWSS coordinate continuous sharing of knowledge and experiences, including periodic exchange with experts and managers beyond the trilateral cooperation.
- Have a common communication strategy that is used on a trilateral level and can be adapted to have impact at the local level.
- Tackle the stressors that threat migratory birds.
- Strengthen international cooperation.
- Enhance political influence on the Flyway sites to promote that all interconnected places are conserved/managed.

Key topic **Fish**

Description	Fish, Swimway
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • Good amount of experience on salt-fresh water fish migration, including the technical and scientific approach. • Current action: We are putting a big effort on preserving shellfish in the Wadden Sea because fish benefit from them. Also, we are removing obstacles on a large scale at several spots on the mainland coast to allow migration of hundreds of millions of fish. Do people in Germany and Denmark look at this problem with the same perspective? And apply the same solutions?
Germany	
Denmark	
Trilateral	<ul style="list-style-type: none"> • Existing Swimway working group. • Swimway conference will take place in September 2019. • The Swimway conference is a good place for exchange but the SIMP could take things beyond exchange of information could turn things into practice and policy.

Challenges
<ul style="list-style-type: none"> • Fish are not yet among the parameters in TMAP. The Swimway group will work on this. • Little knowledge about the fish themselves and the migration routes. • Do the three countries have the same knowledge? • However, any economic activity related to fish is managed by another Ministry. Very similar situation in all countries. • Do we have a same understanding of the problems and solutions? • The difficulty is that we are three countries with different cultures and three different policies. In the SIMP of three countries there should be space to be free to address common problems and agreed trilateral goals differently.

Gaps
<ul style="list-style-type: none"> • We know a lot, but also we became aware on how few we know about how the WS is used by fish (long term trends, what exactly in the life cycle of fish they need the WS for, how flexible they are, if they can't use the WS in some way because the shellfish are gone, especially there is a lack of knowledge for the non-commercial species).

Key actions
<ul style="list-style-type: none"> • General steps: have a common understanding of what are the problems, what is being done in the different topics in the different countries and what are perspectives. Have a shared perspective of what we know and what we don't know and what are no regret measures and to take them jointly and follow them up. • Include fish parameters in TMAP. • Monitoring could be more structured than it is now. • Improve knowledge in order to develop targeted measures for fish.

- For some topics accept the vision of learning by doing and no regret actions (we don't know exactly the full result of those actions, but we know that they are pointing to the right direction).
- The other vision is that if you get rid of the threats, nature restores by itself. Address these two visions: when to help nature and when to let it take its natural course.

TWSC support to improve management

- Support exchange, development of common understanding and common goals, considering common or different visions to act (learning by doing and no regret actions, and nature restores by itself). Support application of measures.

Key topic Fisheries

Description	Sustainable fisheries, Shrimp fisheries, mussel fisheries, underwater world management, effects of disturbing the Wadden Sea soil and ecosystem and overfishing of stock.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • There are funding opportunities such as the Waddenfonds (directed to restore nature and improve economical activities: waddenfonds.nl). Three Waddentools projects are being financed: 1. Flyway, 2. Swimway, 3. Wadden mosaic project (underwater world, this project will make under water habitats and structures maps in the Dutch Wadden Sea. As well as take samples and conduct tests to provide management measures). The three Provinces manage the Waddenfonds. RWS takes part in the selection of project to assure activities are aligned with the vision and management strategy from the national government. • Fisheries are being addressed in the programme Towards a Rich Wadden Sea (rijkewaddenzee.nl) and the vision is to achieve high marine biodiversity, a sound complete marine ecosystem (food web), economically sound, locally accepted and connected fishery. • Transition management is being tested to help the fishermen to achieve a sustainable fishery. • Experiences on exploring together with the fishermen alternative practices such as gear replacement (net to cage) and direct commercialization to restaurants. • Best practice: circa 30% of the Dutch Wadden Sea is free of netting disturbances and up to a certain extent there is regrowth of shell beds. • Ministries and provinces are working together on buying out 50% of the shrimp ships. EU approval pending since the buyout could disturb international economic competition. • 10-15 years ago, the mussel fishery was given the condition to become sustainable or leave the fishery. The cockle fisheries were not able to become sustainable, so they were bought out. The remaining mussel fisheries are halfway in the process of becoming sustainable by continuously reducing until eliminating the extraction of mussel seed and therefore reducing the bottom disturbance.
Germany	<ul style="list-style-type: none"> • The coastal shrimp fishers are part of the culture. They have a great interest in a sustainable image for improving their marketing. • In Schleswig-Holstein a Shrimp fishery advisory board (Krabbenfischerei beirat) is being established and is comprised of fishers, green NGOs, the National Park Authority, and representatives of the Ministry of Environment. The board is planning a project, which will develop a vision for the shrimp fishery in the National Park for the next decades. The National Park's idea is of an activity with less fishermen and newer boats and gear, zero emissions and no negative effect (or much less) on the environment, with a successful family business perspective and reconciled with the National Park objectives. • In Schleswig-Holstein and Lower Saxony the mussel fishery is managed through local agreements with the fishers. • In Schleswig-Holstein the agreement states that mussel fisheries are allowed on 13% of the area of the National Park.

	<ul style="list-style-type: none"> • The project “Impact of brown shrimp fishery on benthic habitats CRANIMPACT” involves fishermen, representatives of the economic chamber, business representatives, fisheries representatives from the Ministries and green NGOs from the three German federal states. • Prohibition to bring mussels seed from elsewhere outside of the Wadden Sea. • No fisheries take place in the Hamburg National Park.
Denmark	<ul style="list-style-type: none"> • No fisheries in the Danish Wadden Sea, therefore, is a reference area • In 2018 there was a stock assessment, presented in the website of the Ministry for Environment.
Trilateral	<ul style="list-style-type: none"> • The Tønder Declaration includes the trilateral framework for sustainable fisheries (but is not being used). • The Call for Action (2018) from the green NGOs, appeals to improve management of fisheries und underwater world. • The Swimway initiative’s team is producing a policy overview on fish and fisheries related to accomplishing the fish targets (WSP, 2010). • As a condition of the shrimp fishery MSC certification, trilateral representatives of the fisheries and NGOs must participate in a working group that meets periodically and fishers must comply with regulations regarding fishing areas, special gear, and reduce bycatch.

Challenges
<ul style="list-style-type: none"> • How to strategically address fisheries and a way to sustainability considering it is a politically sensitive topic? • How to deal with some of the current regulations and agreements that don’t lead to sustainability and don’t comply with a National Park category requirement? • In which ways can the trilateral cooperation motivate the implementation of best practices to reduce overfishing and soil and ecosystem disturbance in a consistent way in the whole Wadden Sea? (e.g. compensation of the opportunity cost).

Gaps
<ul style="list-style-type: none"> • Knowledge gap on fish and the underwater world.

Key actions
<ul style="list-style-type: none"> • Define concrete actions to apply the Framework for sustainable fisheries, including some of the following key actions. • Develop a common knowledge base by sharing information of current management measures, studies, projects, initiatives, fishermen knowledge, their organization system and lessons learned about the effectiveness of the measures applied up until now. Include information on the ecological functions of the habitats and areas that are being fished (mapping). • Develop a common vision for the future of the fishery in the Wadden Sea World Heritage together with the fishermen, managers, green NGOs and authorities, based on the Framework for sustainable fisheries in the Wadden Sea (MCD, 2014). Thereby, consider the goals of the Marine Strategy Framework Directive (MSFD), specifically D6: Sea-floor integrity. Likewise, understand how the biological but also the economic and social system interact, so that the vision includes a socially acceptable activity with a local benefit and added value. The common vision must be made in a way that is possible to evaluate progress and adapt when necessary. The speed and the ways to achieve the vision depend on each country.

- Define sustainable fisheries in the framework of the Wadden Sea World Heritage based on the existing protection goals (i.e. in line to the guiding principle, in the WSP2010, national legislations, conservation and management objectives of the national parks and EU directives) and in line with the Framework for sustainable fisheries (MD 2014).
- Establish and maintain dialogue with fishers, NGOs, universities, the respective ministries in each country and region to design together the steps towards a sustainable fishery.
- Agree, together with fishers, researchers and NGOs on concrete best practices to achieve sustainable fisheries. These should be implemented in a consistent way in the Wadden Sea area.
- Scale up an initiative like the existing Schleswig-Holstein shrimp fishery advisory board to the trilateral level in order to build trust and develop a joint vision with a conservation and socio-economic perspective.
- Research, together with fishers and scientists, to test potential alternatives conducive to a sustainable fishery (alternative fishing gear to reduce benthos disturbance and bycatch, fish at a sustainable yield).
- Calculate and assure funds to cover the cost of implementing best practices.
- Monitoring and research to learn from the dynamics inside the Danish Wadden Sea closed to fisheries and its benefit to the larger region.
- When possible and necessary, support each other to enable the application of certain measures to assure the implementation and respect of no-extraction areas.
- Consider using the thinking of transition management in the SIMP regarding fisheries (Fisheries in Transition to sustainability is a term used to describe a strategy or course of action designed to reduce the environmental impacts of fisheries through direct engagement with seafood businesses and/or with the participation of other fisheries stakeholders. Wikipedia).

TWSC support to improve management

- Have the trilateral overview and share best practices, experiences, ideas on how to improve collaboration with fishers.
- Support experience sharing: Do the three countries have the same vision about the future of the fishery?
- Important that there is a trilateral interpretation of the Guiding Principle that is adapted to the fisheries and the protection of the underwater world.
- Regulations, and actions required are different among the parties. Therefore, goals should be consistent, coordinated and communicated trilaterally.
- Aim for Denmark is to keep the Wadden Sea without fisheries.

Key topic **Tourism**

Description	Sustainable tourism, zoning, the two faces: opportunity and challenge.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • NGO is facilitating the dark sky project and had a great influence on the local ships and military to change their lights. • Currently, the islands are working on their own vision to be more sustainable and independent. This is an important aspect to follow because it interacts with the activities that take place in the Wadden Sea. • Islanders that live sustainably and have a sustainable economy are Wadden Sea ambassadors and would represent an example worldwide. • The three countries have experiences to share. In the Netherlands there is experience on the codes of conduct, zoning maps.
Germany	<ul style="list-style-type: none"> • Tourism is a successful example with a strategy, action plan and ongoing implementation at the trilateral level, as well as the national and regional levels. • More and more guests become aware of the existence of the World Heritage and National Parks as a product of the intense marketing. People are proud to be part of the World Heritage. • The fact of being a World Heritage brings pride and support to the National Park Administrations. • People working on tourism realize that the National Park and World Heritage are guarantors of quality by nature. 30% of the Wadden Sea visitors decide to come because this is a National Park, that represents 88 million euro per year and secures work for 4700 people.
Denmark	<ul style="list-style-type: none"> • Programs combining nature and culture. • Now there are more resources and projects.
Trilateral	<ul style="list-style-type: none"> • Tourism is an example of trilateral cooperation, counting with a trilateral strategy, regional plans, and common projects like Prowad Link and Nakuwa that support the partial implementation of the action plans. • There is exchange and organizations know each other through working together in the international projects such as Prowad Link, Nakuwa and the Waddenagenda, and via the NG-STs. • Islanders that live sustainably and have a sustainable economy are Wadden Sea ambassadors and would represent an example worldwide. • Existing trilateral NG-ST. • Tourism development can mitigate the development of other uses that have far more negative effects (like dedicate areas for industry). • Tourism can contribute to raise awareness about the OUV, and has the potential to contribute to more sustainable practices in an every-day life.

Challenges
<ul style="list-style-type: none"> • Boost the implementation of the trilateral tourism strategy. • How to equilibrate the benefits of tourism through awareness raise, nature experiencing, economic development, with potential negative impacts by overloading some areas? Currently the touristic capacity is determined by the number of beds, hotels and restaurants and not by the capacity of the natural system.

- Calculate at the trilateral level and communicate the economic benefit for tourism of conserving and managing the World Heritage and the National Parks.
- In which ways can we communicate more effectively the activities that are not allowed in the World Heritage?
- How can we improve environmental education to build and sustain public support for conservation?
- Can the Wadden Sea World Heritage become an example of CO2 neutrality?
- Can the Wadden Sea World Heritage become plastic free touristic destination?

Gaps

Key actions

- Support the further implementation of the sustainable tourism strategy.
- Share experiences on how to manage an increasing tourism and its effects on the environment and the local population (including the pros - among other: tourism mitigates the development of other uses with negative effect in specific areas and are an excellent tool for education and awareness. And the cons: growth is driven by touristic capacity and touristic activities are not always consistent with the World Heritage, among other).
- Discuss and describe the need of an upper limit for human activities in regard of the protection of natural processes.
- Conduct studies to calculate how much tourism can the area take? Studies on limits of acceptable change (see PROWAD LINK), how to manage the increasing tourism (spread pressure over several sites or concentrate it in a few sites) to prevent harming the OUV, the touristic product, the visitor experience and the residents.
- Quantify the benefit of the World Heritage and the National Parks to tourism at trilateral level and communicate the results. The quantification of the benefit will contribute to increase the appreciation on the OUV among the people working with tourism.
- Develop common agreements on how to handle expected economic or touristic developments. Do this periodically. Expected developments can be an increasing use of drones, increasing number of companies offering bicycles and scooters for rent in the islands, among other.
- Discuss and decide if the Wadden Sea World Heritage wants to become a plastic free and CO2 neutral touristic destination. If yes, define concrete actions. This would be a good message to the inside and outside of the Wadden Sea World Heritage: "learn in our world heritage how to apply solutions in your city, your house and in your protected area".
- Conduct studies to investigate if closing an area for tourism is a real management alternative (measure environmental and socio-economic effects).
- Promote more and sustain partnerships to gain support for conservation and reduce the footprint.
- Review and harmonize brand management and messages: National Park and World Heritage support each other. The National Park Law and the National Park Administration guarantee that we have a World Heritage.

2 TWSC support

- Support making more concrete actions with measurable expectations.
- The strength of a good cooperation is to promote a win-win situation where, on one hand, the unique nature is preserved, on the other hand, the economy is maintained.
- Through these success examples the trilateral has grown together. Maintain and strengthen coordination and cooperation by means of tangible projects to enforce trilateral work.

- Further harmonise the wording and the understanding of World Heritage beyond the national borders (so that people hear a unified message).
- Coordinate sharing experiences in a time-effective way.
- Nature education as part of the management in the SIMP.
- Support and maintain NG-STs.

Key topic **Shipping**

Description	Shipping, dredging and safety, safety and planning for sustainable port development, water sports regulations, accessibility of harbours, management of the shipping lanes, dredging, PSSR.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • RWS has practical and scientific experience about cleaning plastics at the coast and categorizing using the OSPAR method. • In the Ems the silica brought out of the system is assigned an economic value.
Germany	<ul style="list-style-type: none"> • The countries/states make their own regulations concerning shipping and water sports in the Wadden Sea according to the targets in the Wadden Sea Plan 2010. • Biosphere reserves are the figures focusing on sustainable tourism, mobility, energy production, agriculture, biodiversity. • The protection community German North Sea coast (Schutzgemeinschaft Deutsche Nordseeküste) plan preventive measures in the Wadden Sea. • There are organized fire brigades, the federal police have helicopters and the Emergency Commando (in Cuxhaven) applied for resources for a helicopter. However, a trilateral coordinated plan for action and to be aware of the available resources is needed. • There is a Central Command for Maritime Emergencies (Havariekommando). Schleswig-Holstein and the respective Danish colleagues have periodical joint exercises.
Denmark	<ul style="list-style-type: none"> • The WH Committee asked about and is following developments regarding the Esbjerg port extension. • EU directives can be used to manage shipping in benefit of Wadden Sea World Heritage.
Trilateral	<ul style="list-style-type: none"> • Each country and federal state has other tools to deal with these topics, including the targets in the Wadden Sea Plan 2010, and has made the necessary arrangements with the respective authorities. • Every year there is an Oil disaster operational exercise in which all the big oil response vessels go to exercise in the North Sea. • There is some contact among the crisis managers in the Netherlands and Germany but needs to intensify. • EU Directives can be used to manage shipping in benefit of Wadden Sea World Heritage.

Challenges
<ul style="list-style-type: none"> • How to deal with the economic and political importance of ports and the impact of big projects like port extension on the local efforts for conservation and management of areas in the Wadden Sea World Heritage? Port development reduces the area of the Wadden Sea, dredging causes silt intrusion, biodiversity is affected as well as the geological processes therefore is a direct threaten to the OUV. There are no representatives of this sector in the core trilateral group. • In which ways can all parties collaborate to improve the effectiveness of reaction in case of accident and to sum manpower and equipment? • How to face with the pollution coming from shipping, like sulphur and nitrogen from the exhaust gases that are accumulating and affecting dunes areas?

Gaps

Key actions
<ul style="list-style-type: none">• Share experiences, knowledge and existing strategies to eliminate or reduce the effects of shipping and dredging on the World Heritage. For example, by adapting the capacity and frequency of ferry trips to the tides and estuaries' size. As well as to reduce garbage from fisheries (specially dolly ropes) by working together with the fishers.• Develop a common vision and an agreement on how to address port expansion, dredging and other related issues to reduce impact.• Improve the communication about the existing plans for action in case of accidents at sea (see Havariekommando) and when necessary develop a trilateral plan for action based on the existing bilateral efforts (who to contact, available resources/equipment to share, optimal communication).• Establish an international volunteer management structure to better organize their collaboration on campaigns where many people are needed (e.g. clean beaches after container accident MSC Zoe).• Promote research directed to best practices to reduce the impact of shipping (pollution through gases and garbage, deepening and sedimentation).• When possible and necessary, support each other to enable the application of certain measures to assure the implementation and respect of zoning.

TWSC support to improve management
<ul style="list-style-type: none">• Support the improvement of communication and coordination for shipping safety. Embrace this shared responsibility. "take care of our world heritage collectively. Impacts and connected effects don't respect political borders".• The three countries had agreed to establish zones in which kitesurfing is not allowed. Following this agreement, the two German states Schleswig-Holstein and Lower Saxony had agreed on recommendations for an update of the "Befahrensverordnung" (including zones in which kitesurfing is not allowed). Support the approval of their recommendation.• It is one dynamic system, so it is one issue for the three countries.• This is an important topic that influences the World Heritage, but for the most part lie outside of our direct options for action.• Support the coordination and political negotiations to create an operational international structure for crisis management.

Key topic Coastal protection activities

Description	Coastal protection including expansion of the distribution of predators (Wolf, fox)- (wolf sheep problem)- integral management considering social, economic and ecology.
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Opportunities	
The Netherlands	•
Germany	<ul style="list-style-type: none"> • There is the strategy Wadden Sea 2100. • There is some exchange of information in this topic among the German states. • Coastal protection and agriculture are linked. • Districts and National Park and population collaborate and look together for solutions in some topics such as the introduction of predators (fox) to islands through the construction or enlargement of dikes.
Denmark	•
Trilateral	• The Trilateral group on saltmarshes has done good work over the years.

Challenges	
<ul style="list-style-type: none"> • How to deal with the need of dikes for protecting life and property and their impact on the natural dynamics? • In which ways can we improve the exchange of knowledge, experiences and collaborate better among the three countries despite the different approaches and strategies for coastal protection? Also considering the complexity of organizations involved in each country and federal state. • How to equilibrate and address the socio-economic impacts and benefits of collaborating with the local population in favor of coastal protection, safety and conservation? 	

Gaps

Key actions	
<ul style="list-style-type: none"> • Share experiences, knowledge and lessons learned in an effective way (exchange among the different organizations responsible and with the expert group salt marshes and dunes). • Develop a common trilateral vision and best practices adaptable to each region and contemplating the Guiding Principle (link to the Climate Change Adaptation Strategy and the expert group climate). • Promote research directed to best practices and sustainability. 	

TWSC support to improve management	
<ul style="list-style-type: none"> • Improve communication tailored to the different levels: general population, managers, politicians (decision makers). • Support efforts to exchange information and experiences at operative levels and in an effective way beneficial to people's everyday work. 	

Key topic Social development

Description	How to live as a WH citizen, how to live like an islander
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Opportunities	
The Netherlands	
Germany	
Denmark	
Trilateral	•

Challenges
<ul style="list-style-type: none"> • How to promote a sustainable social development in the area adjacent to the World Heritage considering that activities that take place there have positive and negative impacts to the property?

Gaps

Key actions
<ul style="list-style-type: none"> • Develop a common vision/plan on how to guide a sustainable local development (best practices to live like a world heritage citizen at the mainland and islands) considering the social implications of climate adaptation measures as well. • Communicate in a clear and engaging way the linkages and consequences of certain actions and behaviors (in relation to climate change, coastal protection, etc.) to the World Heritage area. • Communicate in a clear and engaging way the benefits (ecosystem services) that the Wadden Sea World Heritage provide to the surrounding area and to the world.

TWSC support to improve management
<ul style="list-style-type: none"> • Improve communication, dissemination of information about the World Heritage linked to the local identity.

Key topic **Effects from activities outside**

Description	Pollution, cables and pipes to connect energy and data to hubs, includes a comprehensive number of topics like agricultural nutrients, impact from containers, all things that occur outside.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> Experiences to share from negotiations to connect sustainable electricity wind parks on the North Sea level and look for the best areas to lay the cables (Gemini wind parks 1 and 2).
Germany	<ul style="list-style-type: none"> There is the LKN and NLWKN that encompasses coastal protection, marine protection and the National Park. Districts in Schleswig-Holstein and Lower Saxony have advisory boards with all stakeholders (fishers, agriculture, industry, etc).
Denmark	
Trilateral	<ul style="list-style-type: none"> There is the Water Framework Directive and the Water Board which can be used to improve measures for water quality and ecosystems. WSF addresses this topic, but they are not the decision-makers. They can communicate these topics to the parliament and government. WSF preparing a policy paper that addresses the problem that nobody takes measures voluntarily, but only if there is a binding regulation.

Challenges
<ul style="list-style-type: none"> How might the Wadden Sea area achieve a richer economy that is at the same time in balance with the OUV? How to influence the sectors to have a nature inclusive economic development? How to connect the OUV to the regional identity, regional special planning, regional economic decisions? Policy makers, not managers can address the activities and effects from outside. In which ways can we best address: <ul style="list-style-type: none"> drainage from land carrying dirt, microparticles, fertilizers and other chemical substances into the Wadden Sea. plastic and waste management to eliminate their effect on breeding birds, microplastic in mussels, in whales, on the coastline, etc. How to compensate the cost of an additional effort for applying measures to reduce contamination from agriculture and fisheries?

Gaps

Key actions
<ul style="list-style-type: none"> Develop a common vision on how to address and mitigate impacts that originate outside the World Heritage. Involve the respective policy makers if needed. Consider working with the agricultural and fisheries sector to explore how to compensate the cost of an additional effort for applying measures to reduce contamination and motivate them to act in favour of the World Heritage. Develop a trilateral agreement/policy that is applied to all projects regarding where to lay pipes and cables. Research to test and quantify the impact of pollutants, neonicotinoids, antibiotics coming from intensive agricultural activities.

- Share experiences, knowledge and lessons learned.

TWSC support to improve management

- Plan trilaterally. How do we deal with laying the pipes and cables from the management point of view, what are the questions we have from our World Heritage site, should be wise to connect the energy parks? where and why, how it is sustainable?

Key topic **Communication**

Description	Internal and external communication, information dissemination about the trilateral cooperation, ONE Wadden Sea, exchange of experiences, public relations, wording.
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Opportunities	
The Netherlands	•
Germany	
Denmark	•
Trilateral	<ul style="list-style-type: none"> • International exchange of experiences: Good example in marine litter workshop in Nordeney. • Good existing work. • Good IWSS. • People in some working groups know each other for a long time, there is trust and appreciation. Once a personal relation is established, communication is easier. • The Leeuwarden Declaration instructs the WSB to review the Trilateral Communications Strategy and to prepare a communications programme for the period 2018-2022. • We are stepping into a new scene of managing for improving nature (replace the word protecting by improving).

Challenges
<ul style="list-style-type: none"> • In which ways can we effectively reach all the relevant political levels, managers, and the general public to improve their understanding of the TWSC? • How to improve communication and exchange considering that people have little time and resources are limited?

Gaps

Key actions
<ul style="list-style-type: none"> • Manage and maintain an active and effective communication inside the TWSC (share experiences and knowledge at different levels: task, expert, network, steering groups and at the operative level through communities of practice for example). • Design a way to go beyond exchanging experiences and knowledge in order to adapt information into useful actions. • Review and update the Trilateral Communication strategy. • Review and improve messages and communication products about ONE Wadden Sea and the TWSC and in collaboration with the parties. • • Make the Wadden Sea World Heritage more understandable and more known. The locals don't know or understand the trilateral work. Raise awareness on the different levels (trilateral WS, national, global-world heritage). Work with the existing multipliers, so that they can further inform in schools, people in general. Dissemination of info through materials but also by capacity building of local communicators and multipliers.

- The more communication and interaction there is among people in the three countries, the stronger our trilateral network becomes. Improve communication and interaction in ways that don't overburden the few available resources and people.
- Production of press releases or other materials that are easy to adapt for the local use (by adding a statement from a local person/authority/celebrity). Use messages that are connected to the local realities to inform about what the TWSC does (People need to find themselves in the management. The world heritage and the trilateral cooperation must be present in the minds of the people that live here).
- Politicians make the decisions and funding is part of those decisions. Communicate effectively to politicians.
- Improve wording: "Nature protection" implies conflict. "Nature managing" implies improving things.
- The message of the beauty and the spiritual quality of our landscape (i.e. ecosystem service) is something that we can use to gain and to promote our goals.
- Important to include the international/global perspective in our messages.

TWSC support to improve management

- Improve information dissemination about the trilateral cooperation so that the public knows that it exists and what concrete results does it produce.
- Have a common communication strategy that is used on a trilateral level and can be adapted to have impact at the local level.
- Promote the use of more appropriate wording in the trilateral communication.
- Coordinate the development of a common communication strategy that is used on a trilateral level and can be adapted to have impact at the local level.
- CWSS coordinate exchange.
- Strengthen CWSS to:
 - 1) define a clear trilateral communication and coordination structure,
 - 2) improve the communication about the TWSC to parties and the public (for example newcomers need clear info on what is the WSB, what are the differences among the expert, task and network groups),
 - 3) coordinate exchange among parties through joint workshops, seminars, management workshops, webinars, videoconferences, in general exchange also using innovative tools that save travel time.
- Foster our international responsibilities.
- Transmit the message of One Wadden Sea in all our materials and TWSC structure.
- Improve an integrated thinking.

Key topic Education

Description	
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • Environmental education is highly important and is done by experiencing nature (this attracts more visitors to the area). •
Germany	<ul style="list-style-type: none"> • Education is a successful example of trilateral work. • There is the trilateral education strategy and ongoing implementation at the trilateral level as well as the national and regional levels. • More and more guests become aware of the existence of the World Heritage and National Parks.
Denmark	<ul style="list-style-type: none"> • Programs combining nature and culture. • Now there are more resources and projects.
Trilateral	<ul style="list-style-type: none"> • Good example: Trilateral Education Strategy 2018, regional plans, and common platform (IWSS) • Existing trilateral network group. • Wadden Sea acting as nature school. • Communication and education planned as a chapter/heading in the SIMP.

Challenges
<ul style="list-style-type: none"> • Implement the Trilateral Education Strategy 2018

Gaps

Key actions
<ul style="list-style-type: none"> • Strengthen environmental education and nature experience. • Strengthen the sharing of experiences and knowledge. • Implement the Wadden Sea Strategy on Education for Sustainable Development and World Heritage Interpretation. • Maintain the training of multipliers to pass unified messages about the World Heritage.

TWSC support
<ul style="list-style-type: none"> • Support making more concrete actions with measurable expectations. • Through these success examples the trilateral has grown together. Maintain and strengthen coordination and cooperation by means of tangible projects to enforce trilateral work. • Further harmonise the wording and the understanding of WH beyond the national borders (so that people hear the same message all over WH). • Coordinate sharing experiences in a time-effective way. • Nature education as part of the management in the SIMP. • Support and maintain NG-E and the IWSS.

Key topic **Monitoring**

Description	Monitoring, data handling, reporting, improve data quality, OUV criteria more specific to evaluate the quality status.
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Opportunities	
The Netherlands	<ul style="list-style-type: none"> • Exchange experiences and collaborate with the Basis monitoring project (agreement with several parties to define and implement what would be the basis of monitoring in the Netherlands (what are we doing now, what do we have to do, and how do we fill the gap?).
Germany	<ul style="list-style-type: none"> • Schutzstation Wattenmeer: Current efforts on developing a monitoring software on disturbance, waste etc. (modules could theoretically be added for different countries or aspects)-could be a topic for a manager’s workshop and could contribute to TMAP and QSR. • Good example in the migratory birds monitoring.
Denmark	<ul style="list-style-type: none"> •
Trilateral	<ul style="list-style-type: none"> • CWSS / Partnership Hub as a common place to keep the information about monitoring from the three countries. • The Partnership Hub might be used in combination with the Partnership Centre to organise workshops/symposia about monitoring and data handling issues. CWSS should act as a coordinator. • TG-MA has the objective to tackle the TMAP, to develop the missing parameters (together with the responsible Working Groups), and to look at the data management. • Exchange of general information about monitoring exist in TG-MA. Exchange about specific parameters takes place in the expert groups (saltmarshes, birds, alien species, etc), but there is room for improvement.

Challenges
<ul style="list-style-type: none"> • How can better specify in the monitoring what is meant with each criterion of the OUV? • Is it possible to optimize resources and operationalize monitoring by aligning some the parameters required by EU Directives and OUV without compromising their core focusses? • In which ways can we harmonize/standardize data acquisition along the Wadden Sea site? • Assure budget to apply TMAP.

Gaps
<ul style="list-style-type: none"> • Common understanding of how data will be delivered to and processed by CWSS. • Missing parameters on underwater ecosystems (sublittoral habitats, species, biodiversity), alien species and fish.

Key actions

- Monitoring is the basis for identifying where there is need for action, for sound decision-making and evaluation of the effectiveness of measures taken. A comprehensive monitoring is a cornerstone for the management within the Wadden Sea.
- Reinforce TMAP by:
- commonly agreed World Heritage driven monitoring goals connected to the OUV (what data do we need as a World Heritage site and how to get organised),
- defining the OUV criteria in a measurable way (practical: catalogue of test criteria). Compare these to the parameters considered in the EU Directives and if deemed appropriate align them in order to operationalize monitoring and optimize available resources.
- designing, planning and maintaining a useful long-term data base,
- improving analysis and interpretation of results presented in the QSR.
- Agree on a way to improve the standardisation of data acquisition (review and update the TMAP handbook).
- Share knowledge and technologies that can improve monitoring, information in general, data accessibility and comparability.
- Modernise TMAP and connect it to the demands of the OUV. Bring the monitoring to a higher level connected to the World Heritage site values is very important and intensify the QSR to produce better analysis and interpretation of the results.
- What are the parameters that we need to measure to ensure that we are protecting the OUV?

TWSC support to improve management

- Place monitoring on a normal ambitious level. Direct the necessary resources to evaluate the results of the monitoring.
- Have the trilateral overview and share best practices, experiences, ideas on how to improve monitoring, reporting, data sharing.
- TMAP is the basic requirement so that we can work successfully in 1) counting/monitoring, 2) evaluating the results, 3) deriving management guidelines.
- TMAP is the basis for the QSR.
- If the TMAP does not work the trilateral cooperation is failing.
- CWSS has a key role on data handling, data evaluation and the derived management measures.
- Assure the necessary resources to apply TMAP and produce the QSR.