



WORKSHOP INDICATIVE MAPPING

Kreishaus Nordfriesland, Husum

25 – 26 September 2012

Summary Report

Contents

WORKSHOP INDICATIVE MAPPING.....	1
1. WELCOME AND SETTING THE SCENE.....	3
2. PRESENTATIONS	4
2.1 Development Holocene period, the geological and geomorphological aspects	4
2.2 Use of remote sensing with historical data.....	5
2.3 Habitation and use of the Wadden Sea from an archaeological perspective.....	5
2.4 A natural history of the Wadden Sea	6
2.5 Managing Cultural Heritage Under Water.....	7
2.6 Conservation and Management Schemes.....	7
3. INDICATIVE MAPPING: DESIGNING A JOINT PROJECT PROPOSAL	8
3.1 Break-Out Sessions	8
3.2 Project Proposal	9
3.3 Working Steps	9
4. CLOSING	10
Annex 1 List of participants	11
Annex 2 Workshop program	13

1. WELCOME AND SETTING THE SCENE

The deputy director of the State Agency for Archaeology Schleswig-Holstein, Ulf Ickerodt, welcomed the participants and opened the workshop on the first day. A list of participants is in **Annex 1**. The programme for the workshop is in **Annex 2**. He particularly welcomed the president of the county council Nordfriesland, Mr. Pahl, who gave a short introduction about the county and its natural and cultural assets. He highlighted the rich cultural history of the area and explained the changing living conditions since the occupation by man. Mr. Pahl emphasised the need of scientific research to inventory, preserve and manage the cultural history. In this respect he mentioned the good cooperation with the State Agency for Archaeology and wished the workshop success and a good outcome.

By a short presentation, Ulf Ickerodt introduced the objectives and the course of the workshop. Firstly, he referred to the cultural landscape projects, Lancewad and LancewadPlan, to explain the history and process of cooperation in landscape management. The increasing spatial requirements would make it necessary to document the archaeological sites with its values for better protection and management. In this respect, not only the vertical and horizontal (space) coherence but also the connection to seasonal and historic variations had to be taken into account. For a sound management, a good network and cooperation among the stakeholders as well as an acceptance of the public would be necessary. The approach of indicative mapping would be a good instrument to be used in management and preservation.



The workshop chairman Jos Bazelmans from the Dutch Cultural Heritage Agency opened the presentations session of the workshop and pointed to the elaboration of a trilateral research plan. Firstly, he thanked all organizers (State Agency for Archaeology Schleswig-Holstein, CWSS, Cultural Heritage Agency of The Netherlands, WSF and Stichting Verdrongen Geschiedenis) for their support to implement the workshop. The workshop was held in continuation of the workshops in Ribe (May 2011), Hannover (September 2011) and Amersfoort (January 2012). The goal was to address the values of the cultural maritime heritage of the Wadden Sea and to discuss methods to map the evidence of our cultural history.

The statements of the Sylt Declaration (2010) would clearly ask for an analysis of the LancewadPlan strategy to integrate accepted parts into trilateral policy. As so far there would be no full common understanding of what indicative mapping encompasses and how it can be used in policy and management, a wider audience with non-experts should be involved in the process to get a broad commitment to the approach of indicative mapping. In order to get also commitment of the political level, a project plan should be presented at the Wadden Sea Conference in February 2014. Jos Bazelmans emphasized the advantage of applying indicative mapping as it would be an excellent approach to map the "unknown" by predictive interpretations using e.g. (palaeo)- geomorphological data and archaeological research knowledge. He stimulated the workshop to work towards a trilateral indicative map for the archaeology of the Wadden Sea and pointed out contents and practical issues of the workshop.

2. PRESENTATIONS

2.1 Development Holocene period, the geological and geomorphological aspects

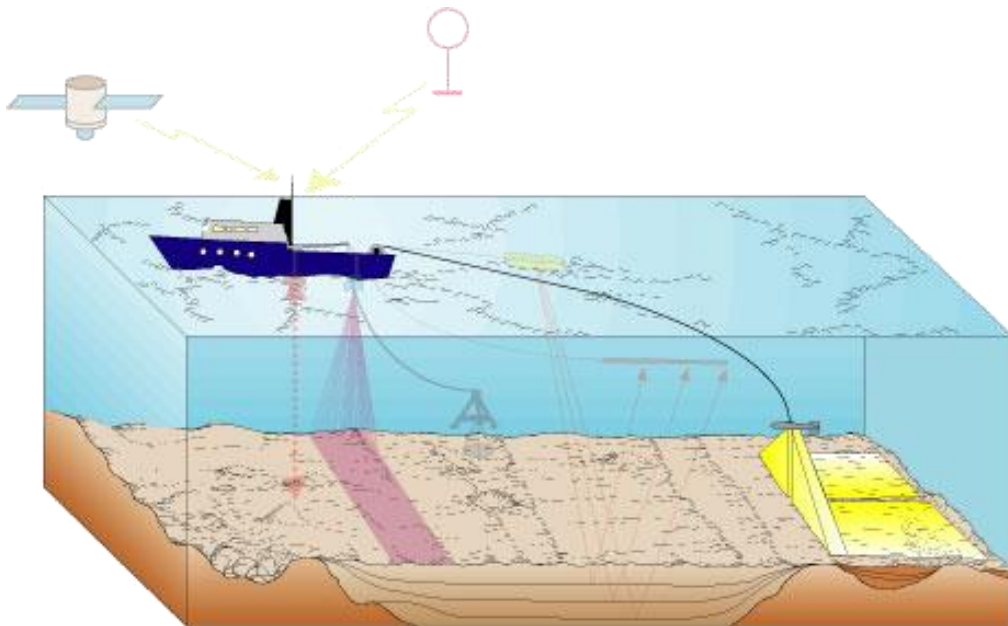
Martina Karle (Lower Saxony Institute for Historical Coastal Research) and Henk Weerts (Cultural Heritage Agency of The Netherlands) introduced indicative mapping of the Wadden Sea with a view on the geological perspective. They outlined the data availability and use, presented the Holocene paleogeography and the recent developments in 3-D mapping. Several categories of data were used to get a picture of the paleogeography. Borehole data from state agencies and oil/gas companies, archaeological information from various data bases, historical material, remote sensing data like laser altimetry as well as seismic data and last but not least expert knowledge in order to correctly interpret the data sets were taken into account.



Detailed maps of the Holocene in the Netherlands illustrated the development of the landscape through time. Furthermore, results of the Jade Bay Project with a huge number of coring data contributed to a better understanding of transgression and regression of the sea in the coastal area. A number of maps, elaborated by Dirk Meier, visualized the landscape and settlement development at the North Sea Coast of Schleswig-Holstein from 6500 BC to today. Finally, the recent developments were presented in detailed 3-D mapping, using data and models from the Netherlands.

2.2 Use of remote sensing with historical data

Menne Kosian (Cultural Heritage Agency of The Netherlands) focused in his presentation on the use of remote sensing with historical data in the Wadden Sea. Only few landscapes would change more rapid than the marine. Sandbanks, channels and even complete coastlines could change dramatically overnight. This would be a threat not only for modern mariners; also our seafaring forefathers knew this problem also all very well. These changes could be monitored with modern techniques and be used to adapt the available maps on a regular basis. In order to avoid possible threats to wreck sites, knowledge would be required to get an idea of underwater landscape in various periods and the changes over time.



Historic cartographical analysis could provide an insight in historical use and sometimes in the morphology of former landscapes. But the analysis would only provide qualitative information; i.e. descriptive data (map legends, interpretations, names or remarks). Modern remote-sensing devices would provide purely quantitative data. In order to model these changes overtime, the historical qualitative data should be in some way 'quantified' to make calculations possible. If the historical records could provide quantitative data as well, it should somehow be extrapolated to be comparable with modern high resolution data. This 'quantifying' of data could also be used for modern qualitative maps, such as soil type maps or land use maps.

2.3 Habitation and use of the Wadden Sea from an archaeological perspective

Martin Segschneider from the State Agency for Archaeology Schleswig-Holstein gave a presentation about habitation and use of the Wadden Sea from an archaeological perspective. Some illustrations showed vividly the settlement area in the southern North Sea after the last Ice Age as well as activities of the former inhabitants. Humans roamed the landscape for hunting and collecting wood, still visible in the flint tools to be found. With the sea level rise, the forests were flooded and drowned; only in the Iron Age, marsh surfaces were inhabited again. Following, he presented places of archaeological finds of the Stone Age in the Wadden Sea. These were finds from the Bell Beaker culture, flint stones and remains from the ancient fauna.



Of particular interest were evidences of old dwelling mounds in the Wadden Sea with traces like wattle works, fortifications and graves. Important finds were made along the coast of Lower Saxony. Many finds of the Roman Empire around the island of Föhr documented vividly the historic development with settlements and trade. Also remains of wells in the Wadden Sea underlined the habitation period of this area. Evidences of former dikes, drainage systems and field patterns in the intertidal Wadden Sea bear witnesses of the manifold uses in historic times. Aerial photographs were an excellent instrument to discover these remains. With a historic map of the coastal area of Schleswig-Holstein, encompassing settlements, archaeological remains, uses and trade witnesses he finally illustrated the vivid history. Finally, he pointed at the "Wadden Sea project" of the Lower Saxony Institute for Historical Coastal Research, which elaborates on a systematic inventory of sites of finds in the Wadden Sea. A flyer of the project was distributed.

2.4 A natural history of the Wadden Sea

The second day of the workshop commenced with a presentation of Karsten Reise of the Alfred Wegner Institute, Coastal Ecology Wadden Sea Station Sylt, on the natural history of the Wadden Sea. The Wadden Sea is a relatively young system created as a result of the rapid sea level increase in the Holocene period. The current Wadden Sea exists because the sediment import balances the sea level rise of some 15 cm per century. The cause and effect chain is however almost never sufficient to explain developments with regard to the Wadden Sea. Contingency is an inherent part of the system, historic developments could help explain developments such as the losses of species as the sting ray, thornback ray and sturgeon or changes in species. E.g. grey seals were much more abundant in the past than harbour seals. The appearance of new alien species as the pacific oyster was irreversible. A natural balance never existed and never will exist primarily because the impact of man and therefore focus should be on contingency and the scale and pace of man's interference in the system. Through the designation as a World Heritage property, the Wadden Sea has become a heritage of mankind, a treasure to be looked after. Therefore it is important to study also in a historic perspective how the Wadden Sea is adapting to developments.



2.5 Managing Cultural Heritage Under Water

Will Brouwers (Cultural Heritage Agency of The Netherlands) briefly introduced the MACHU project (Managing Cultural Heritage Under Water) and the use of its data base. The project made information available for researchers, policymakers and the general public. This was achieved through a web-based GIS application and an interactive website. Detailed information about the project and the use of the data base can be found under: http://www.machuproject.eu/documenten/MACHU_report_3.pdf

2.6 Conservation and Management Schemes

Jörn Kohlus, Wadden Sea National Park Authority Schleswig-Holstein, and J. Opdebeeck, Cultural Heritage Agency of The Netherlands, briefly presented the conservation and management schemes of the Wadden Sea Conservation Area. The very comprehensive protection and management system in place provides a firm basis for an integration of the protection and management of the maritime cultural heritage. The indicative mapping would be of interest for both sectors and would meet the need for a better integration.

3. INDICATIVE MAPPING: DESIGNING A JOINT PROJECT PROPOSAL

After the presentations the workshop continued with discussing indicative mapping in three groups and plenary. The objective was to come to an agreement on the outline of a common project between the responsible authorities and other partners that could be further developed in the coming period including funding possibilities. The project should also be submitted to the 2014 Trilateral Governmental Conference, the Wadden Sea Ministerial Conference, which will be held in Tønder 4-6 February 2014 and constitute the input of the LancewadPlan follow up.

3.1 Break-Out Sessions

During two break-out sessions the needs (rationale) and perspectives of a common project and the output and involvement in terms of who should and could participate in such a project were discussed. The results of the debate were reported back and discussed in detail in plenary. Overall the workshop agreed that the indicative mapping would be an urgent and a very useful tool for policy making and management of the maritime cultural heritage of the Wadden Sea also in terms of integration with the protection and management of the natural values of the Wadden Sea. There was also consensus that such a project proposal could constitute an important input to the 2014 Wadden Sea Conference.



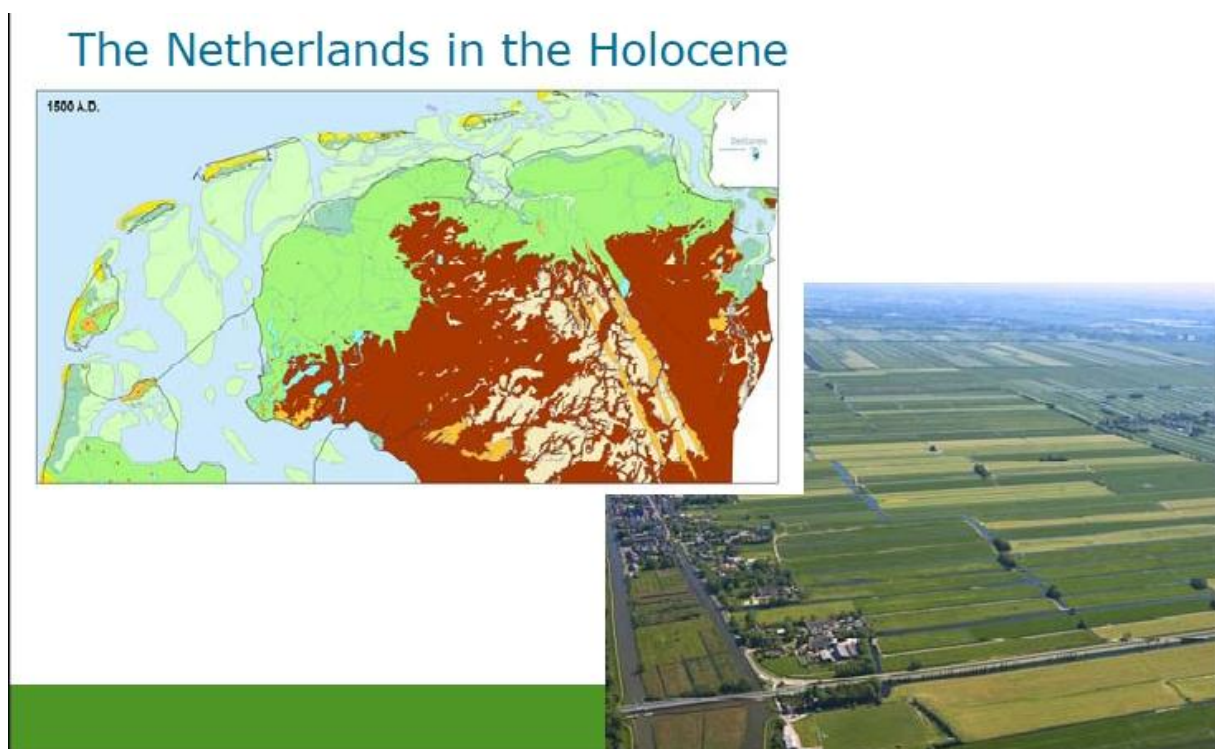
Some reservations were expressed, however, by the participants whether it would be possible to formulate a common project on the basis of the existing knowledge level and policy and management approach:

- There is so far still no full common understanding of what indicative mapping encompasses and how it can be used in policy making and management;
- There are differences in terms of the responsibilities with regard to in particular spatial planning, management approaches and possibilities etc. and therefore also to how such an instrument can be used regionally;
- The data quality and data availability is very different between the regions; the elaboration of comparable indicative maps requires a certain degree of harmonization of the data and the attainment of new data which is potentially very expensive;
- It is unclear to make an approximation of how much such a project will cost and whether the resources will be available;
- A feasibility study is therefore needed. First, however, this approach needs to be discussed further in detail with the responsible authorities and a common understanding has to be reached both in terms of the technical details as well as the more policy oriented issues.

3.2 Project Proposal

There was agreement that the above mentioned concerns could be cleared up and that the process should be continued with the aim to present a project proposal to the 2014 Wadden Sea Conference and constitute the input with regard to the cultural landscape discussion at the Conference. It was agreed to aim at the following targets:

- Visualization of geomorphological changes in the Wadden Sea and, as a consequence of this, also of the changes in archaeological values as well as the threats of further degradation and/or loss;
- Provision of maps for management and use;
- Usage of indicative mapping to visualize the values also with regard to historical time depths as well as for awareness;
- Increased historic awareness of the population of the coastal region.



3.3 Working Steps

On the proposal of the chairman the following work steps and process was **agreed** which should result in the delivery of a draft project proposal (outline) for the 2014 Wadden Sea Conference to be delivered in time for its preparation in June 2013:

- (1) Implementation of a data delivery workshop to discuss the availability and the quality of the data as well as technical aspects for common use. Also the use of the data system of the European MACHU project will be considered. Furthermore, the data reliability with regard to geology, archaeology and ecology should be assessed. Finally, the exchange of data with a view to assess the feasibility of a common data approach method including gaps and shortages will be explored. The workshop would be preceded by a study of the data availability on short term;

- (2) As a next step a pre-project plan with different work packages (themes) such as methodology, data quality, geology of Holocene deposits, assessment of erosion and sedimentation in different tidal basins will be elaborated. The project plan will encompass indicative mapping of all tidal basins on a quality base as well as a focus on a quantitative base for a few tidal basins. For these, a comparative study could be included. To proceed, by mid November 2012 a first draft outline of the project should be circulated to a wider group (participants Ribe workshop 2011) and solicit comments and further suggestions.
- (3) On the basis of this, an information workshop on indicative mapping with a wider audience will be convened on 20 February 2013 to get a common understanding of the appropriate usage of the method for policy, management and awareness.
- (4) The finalization of the project indicative mapping will take place on a workshop in May-June 2013. In order to integrate the project in a cultural heritage and landscape perspective also for the future, this workshop will be implemented in the framework of annual workshops. Following, other overall themes, such as how to manage the cultural landscape with a decreasing population, will also be part of the workshop.

The work steps will be organized by a **core group**, represented by Jos Bazelmans, Karel Essink, Hauke Jöns, Ulf Ickerodt, Martijn Manders, Anne Husum Marboe, Jens Enemark and Manfred Vollmer.

Finally, the secretary informed that as a follow-up of the Ribe workshop last year a popular version of the comparative analysis will be published on the occasion of the International Scientific Wadden Sea Symposium, 21-23 November 2012 in all four languages (English, German, Danish, Dutch). The publication is a joint publication of the Dutch Wadden Academy and the CWSS and directed at policy makers, managers, historic associations etc. He requested help in circulating the publication to a wider audience.

4. CLOSING

The chairman closed the workshop at 16:00 hrs and thanked the participants for their constructive contributions and fruitful discussions. In his view this workshop had reinforced the trans-boundary cooperation on the cultural heritage of the Wadden Sea Region and he was confident that a common project on indicative mapping could be elaborated and implemented. He looked forward to the next steps and wished the participants a safe journey home.

Annex 1 List of participants

Mr. Prof.Dr. Jos Bazelmans

Rijksdienst voor het Cultureel Erfgoed
Postbus 1600
NL-3800 BP Amersfoort
phone: +31 (033) 4217421
e-mail: j.bazelmans@cultureelerfgoed.nl

Mr. Will Brouwers

RCE Maritiem Programma
Postbus 1600
NL-3800 BP Amersfoort

Mr. Jens Enemark

Common Waddensea Secretariat
Virchowstr. 1
D - 26382 Wilhelmshaven
phone: +49 (04421) 9108 12
e-mail: enemark@waddensea-secretariat.org

Mr. Steen Frydenlund Jensen

Sydvestjyske Museer
Odins Plads 0
DK - 6759 Ribe
phone: +45 76 16 39 69
e-mail: stj@sydvestjyskemuseer.dk

Mr. Axel Heinze

Museum ‚Leben am Meer‘ Esens
Jahnstraße 7
D - 26427 Esens
e-mail: axel.heinze@gmx.de

Ms Martina Karle

Niedersächsisches Institut für historische
Küstenforschung
Victoriastraße 26/28
D - 26382 Wilhelmshaven
phone: +49 (04421) 915156
e-mail: karle@nihk.de

Mr. Jörn Kohlus

Landesbetrieb für Küstenschutz, Nationalpark und
Meeresschutz Schleswig-Holstein
Schloßgarten 1
D - 25832 Tönning
phone: +49 (04861) 61646
e-mail: joern.kohlus@lkn.landsh.de

Mr. Henk Weerts

Rijksdienst voor het Cultureel Erfgoed
Postbus 1600
NL-3800 BP Amersfoort
e-mail: h.weerts@cultureelerfgoed.nl

Mr. Mike Belasus

Deutsches Schifffahrtsmuseum
Hans-Scharoun-Platz 1
D- 27568 Bremerhaven
phone: +49 (0471) 48207 28
e-mail: belasus@dsm.museum

Mr. Bo Ejstrud

Marine Archaeology, University of Southern Denmark
Niels Bohrs Vej 9
DK - 6700 Esbjerg
e-mail: ejstrud@hist.sdu.dk

Mr. Karel Essink

Stichting Verdrongen Geschiedenis
Vosbergerlaan 14
NL - 9761 AK Eelde
e-mail: karelessink@hetnet.nl

Mr. Dr. Henning Haßmann

Nds. Landesamt für Denkmalpflege
Scharnhorststraße 1
D - 30175 Hannover
phone: +49 (0511)925 5265
e-mail: henning.hassmann@nld.niedersachsen.de

Mr. Ulf Ickerodt

Archäologisches Landesamt Schleswig-Holstein
Brockdorff-Rantzau-Straße 70
D - 24837 Schleswig
phone: +49 (04621) 38737
e-mail: Ulf.Ickerodt@alsh.landsh.de

Ms Sunhild Kleingärtner

Niedersächsisches Institut für historische
Küstenforschung
Viktoriastr. 26/28
D - 26382 Wilhelmshaven
phone: +49 (04421) 915113
e-mail: kleingaertner@nihk.de

Mr. Menne Kosian

Rijksdienst voor het Cultureel Erfgoed
Postbus 1600
NL-3800 BP Amersfoort
e-mail: m.kosian @cultureelerfgoed.nl

Mr. Anders Olesen

Sydvestjyske Museer
Odins Plads 1
DK - 6760 Ribe
phone: +45 76 16 39 70
e-mail: anol@sydvestjyskemuseer.dk

Mr. Johan Opdebeeck

RCE Maritiem Programma
Postbus 1600
NL-3800 BP Amersfoort
phone:
e-mail: j.opdebeeck@cultureelerfgoed.nl

Mr. Holger Schweitzer

Marine Archaeology, University of Southern Denmark
Niels Bohrs Vej 9
DK - 6700 Esbjerg
phone:
e-mail: holger@hist.sdu.dk

Mr. Dr. Sven-Hinrich Siemers

Museumsverbund Nordfriesland
Herzog-Adolf-Straße 25
D - 25813 Husum
phone: +49 (04841) 2545
e-mail:
siemers@museumsverbund-nordfriesland.de

Mr. Armin Volkmann

Julius-Maximilians-Universität Würzburg, Digital
Humanities
Am Hubland
D - 97074 Würzburg
phone: + 49 (0931) 3185825
e-mail: armin.volkmann@uni-wuerzburg.de

Mr. Karsten Reise

AWI, Wattenmeerstation Sylt
Havenstraße 43
D - 25992 List/ Sylt
phone: +49 (04651) 956 4304
e-mail: karsten.reise@awi.de

Mr. Martin Segschneider

Achäologisches Landesamt Schleswig
Brockdorff-Rantzau-Straße 70
D - 24837 Schleswig
phone: +49 (04621) 38728
e-mail: martin.segshneider@alsh.landsh.de

Ms Martina Tammen

Museum ‚Leben am Meer‘ Esens
Jahnstraße 6
D - 26426 Esens

Mr. Manfred Vollmer

Wadden Sea Forum
Virchowstr. 1
D - 26382 Wilhelmshaven
phone: + 49 (04421) 9108 18
e-mail: vollmer@waddensea-forum.org

Annex 2 Workshop program

Objectives Workshop

The workshop will introduce the method of indicative mapping in a maritime context and will reflect the development of the Holocene period and the use of the maritime heritage in historic times. On the basis of this, three main objectives will lead through the workshop:

- (1) Acceptance of indicative mapping as an approach and use in conservation, management and spatial planning
- (2) Outline of a common project indicative mapping supported by partners
- (3) Integration of conservation and heritage approaches

The workshop will also aim at a broad commitment of the authorities/organisations for the further elaboration on the maritime heritage to commonly protect our cultural heritage.

Overall Programme Schedule

24 September		
12:00 – 13:00	Arrival in Husum	Meeting at the Nordsee-Museum near the central station
13:00 – 18:00	Excursion	Excursion to Nordstrand / Wadden Sea
25 September		
09:00	Meeting	Meeting at the Nordsee-Museum, Husum
09:30 – 11:30	Nordsee Museum	Visit of the Wadden Sea exhibitions in the Nordsee-Museum
11:30 – 12:00		Walk to the Kreishaus Husum
12:00 – 13:00	LUNCH with registration of participants	
13:00 – 13:30	Official welcome to workshop by the Kreis Nordfriesland and the State Service for Archaeology	Mr. Pahl Mr. Ulf Ickerodt
13:30 – 17:30	PRESENTATIONS	Session chair: Jos Bazelmans
	Towards a trilateral research plan?	Jos Bazelmans
	Development Holocene period, the geological and geomorphological aspects	Ms Martina Karle Mr. Henk Weert
	Use of remote sensing with historical data	Mr. Menne Kosian

15:00 – 15:30	COFFEE BREAK	
13:30 – 17:30	PRESENTATIONS continued	<i>Session chair: Jos Bazelmans</i>
	Habitation and use of the Wadden Sea from an archaeological perspective	<i>Mr. Martin Segschneider</i>
	Summary, discussion, ambition level common project indicative mapping	<i>Chair: Mr. Jos Bazelmans</i>
18:00 – 20:30	DINNER	<i>State Archaeological Service</i>

26 September

09:00 – 09:45	PRESENTATION: A natural history of the Wadden Sea	<i>Mr. Karsten Reise</i>
	Discussion in 3-4 groups in breakout sessions with a view to discuss and define the elements of a common project on indicative mapping of the archaeological heritage in the Wadden Sea	
09:45 – 10:45	<u>Break out session 1:</u> <ul style="list-style-type: none"> • Discussion needs and rationale • Perspectives 	<i>Chairs breakout sessions</i>
10:45 – 11:00	Reflection by plenary	
11:00 – 11:30	COFFEE BREAK	
	<u>Break out session 2:</u> <ul style="list-style-type: none"> • Discussion on end product/output • Who should be involved/organizational matters 	
11:30 – 12:30		
12:30 – 12:45	Reflection by plenary	
12:45 – 13:45	LUNCH	
13:45 – 15:15	<ul style="list-style-type: none"> • Presentation results breakout sessions • Elements and development of joint project 	<i>Mr. Jos Bazelmans</i>
15:15 – 15:45	COFFEE BREAK	
15:45 – 16:45	<ul style="list-style-type: none"> • Discussion integration nature conservation – maritime heritage conservation – common efforts 	<i>Chair: Mr. Jos Bazelmans</i>
	Presentation of the protection and management of the Wadden Sea from the 4 regions with specific emphasis on the integration of the archaeological values	<i>Mr. Johan Opdebeeck Mr. Jörn Kohlus</i>
16:45 – 17:15	<ul style="list-style-type: none"> • Follow up organizationally 	
17:15 – 17:30	<ul style="list-style-type: none"> • Concluding presentation on maritime archaeology, the greater perspective 	<i>Mr. Ulf Ickerodt</i>
17:30	END OF CONFERENCE	

