

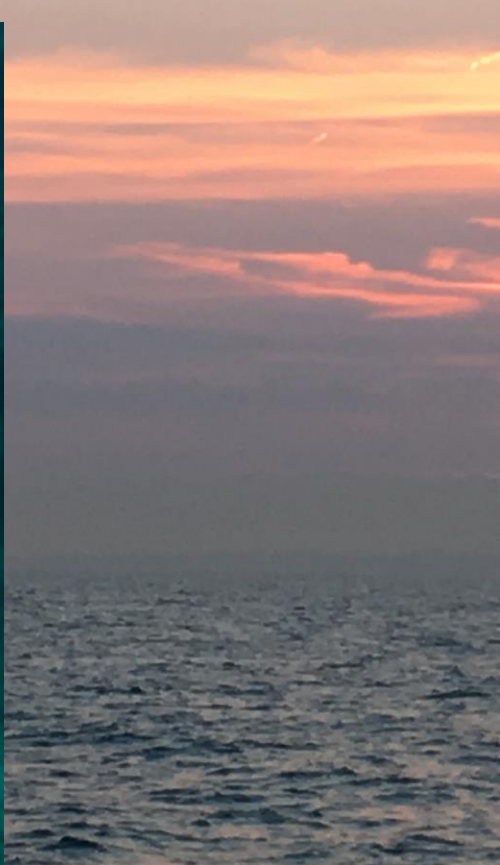
# Maritiem en geo-informatie

Martijn Manders

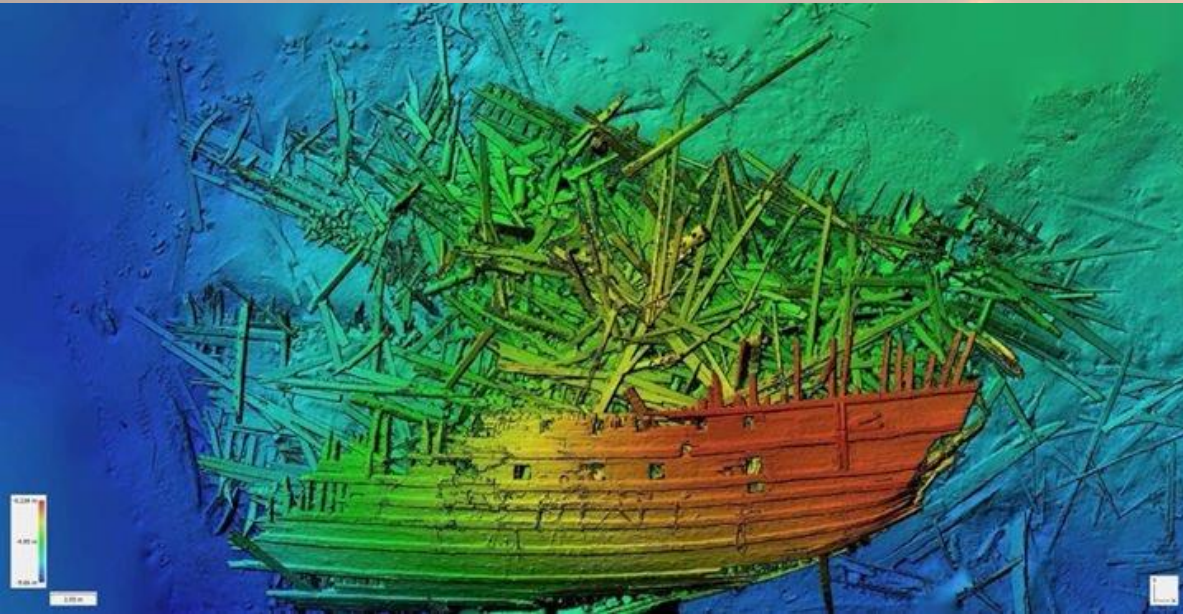


# Een iets andere titel...

- Maritiem en onderwater
- Archeologie en erfgoedbeheer



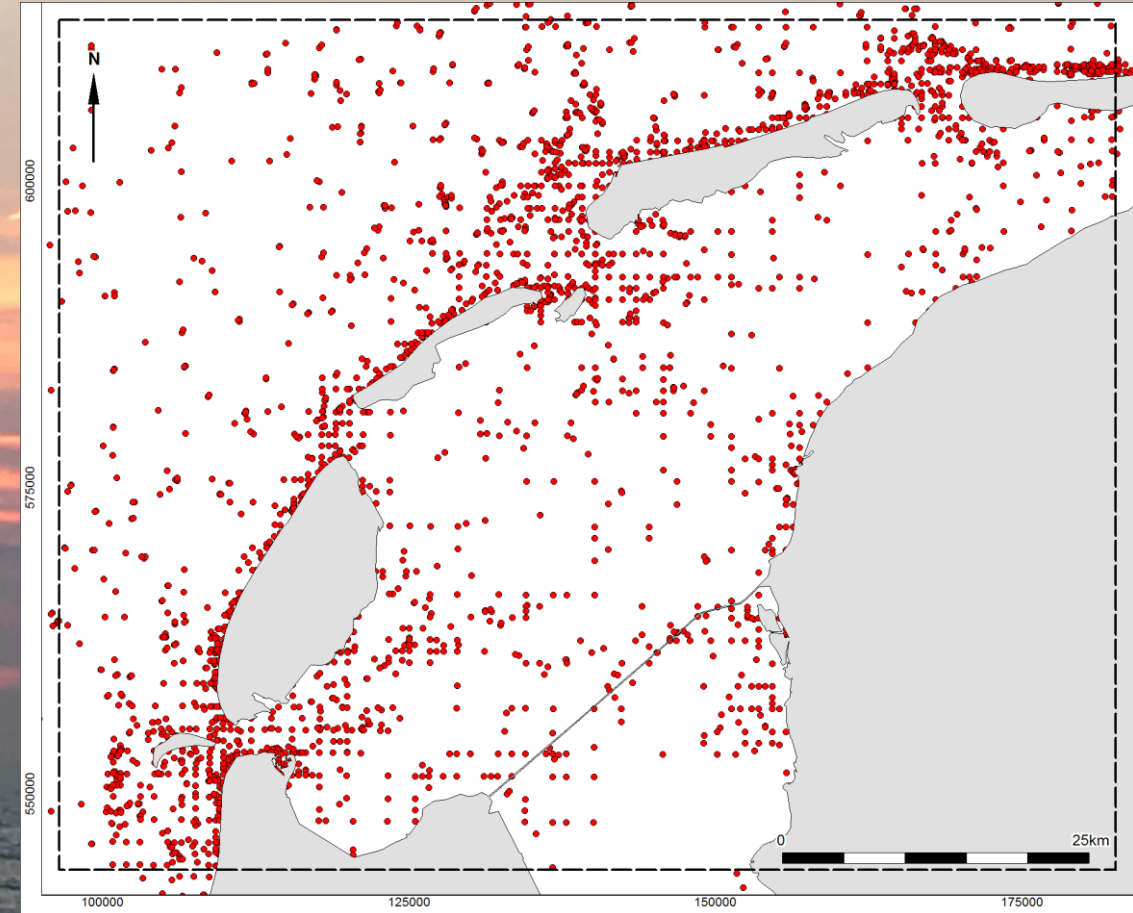
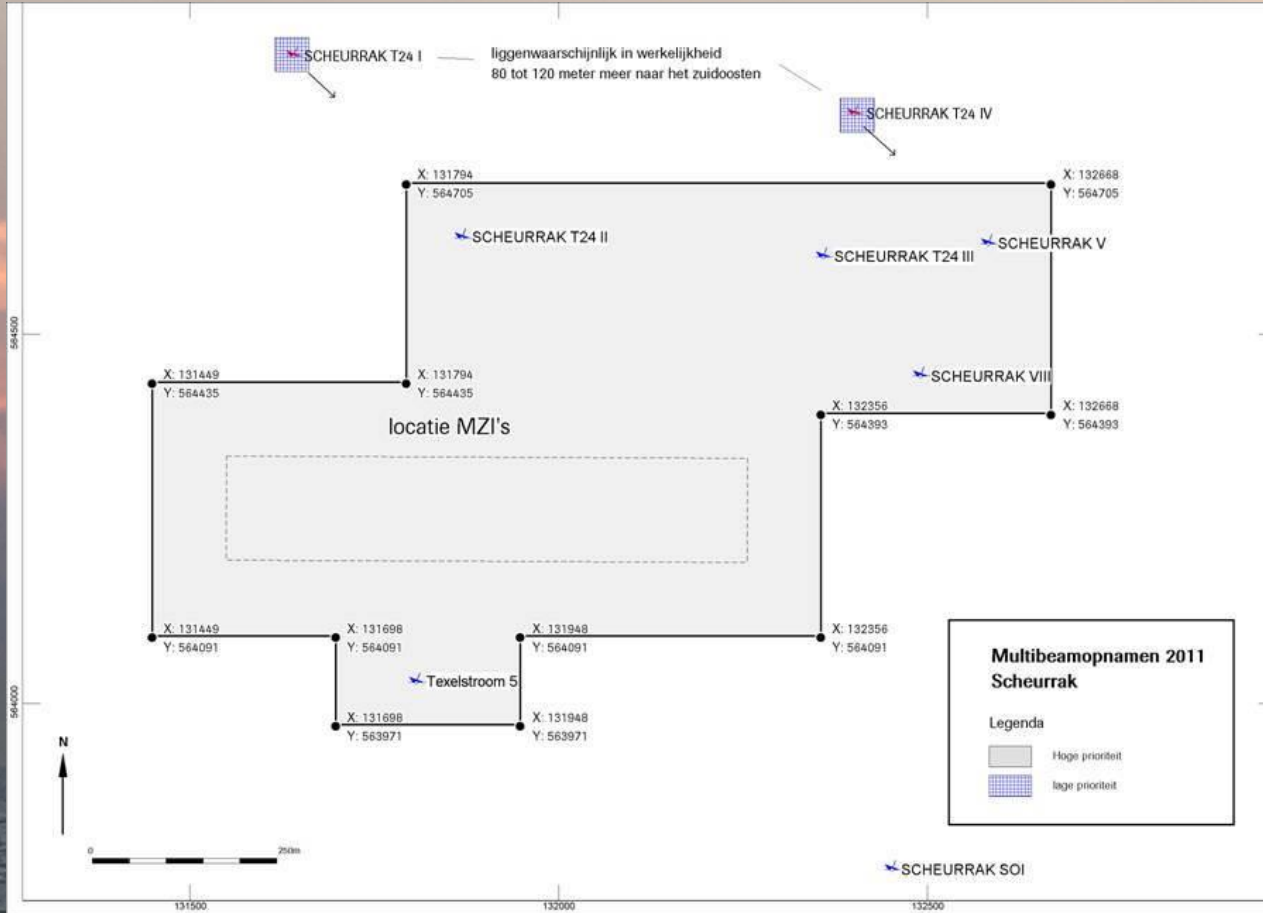
# Geo-informatie is essentieel in de onderwater archeologie en erfgoedbeheer

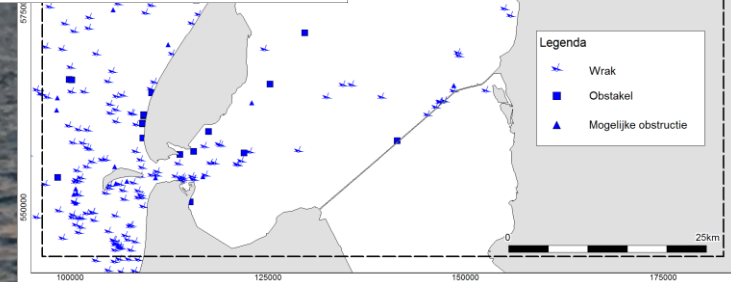
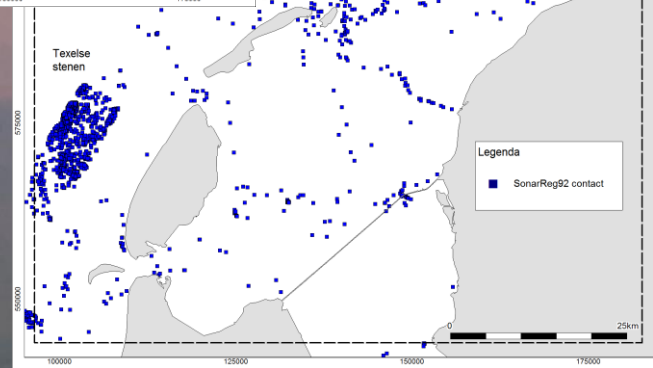
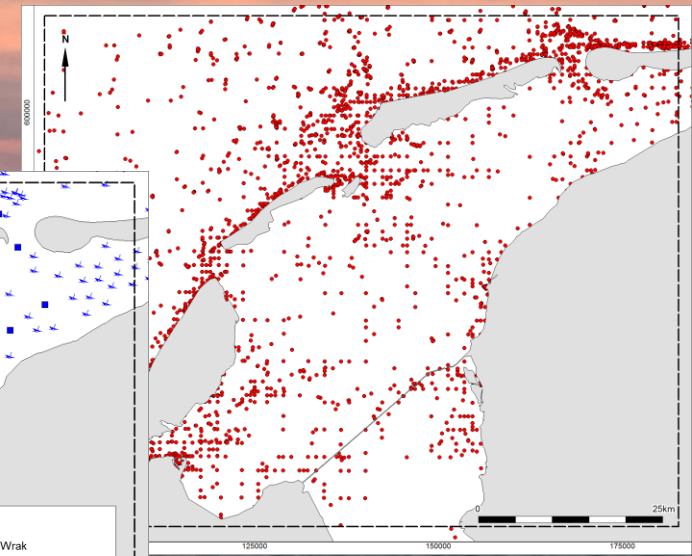
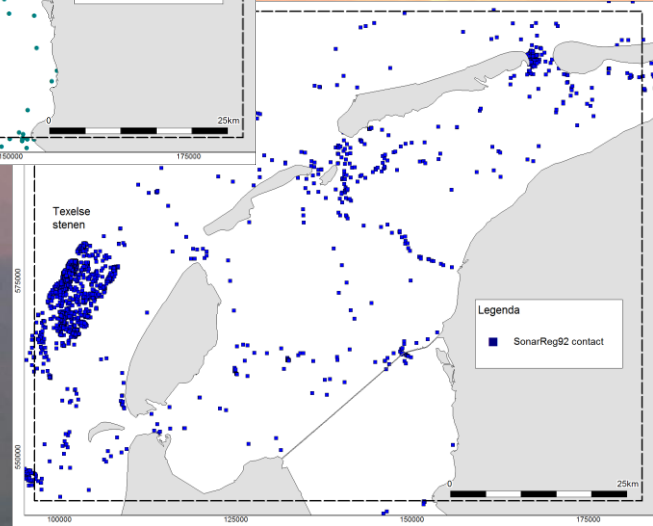
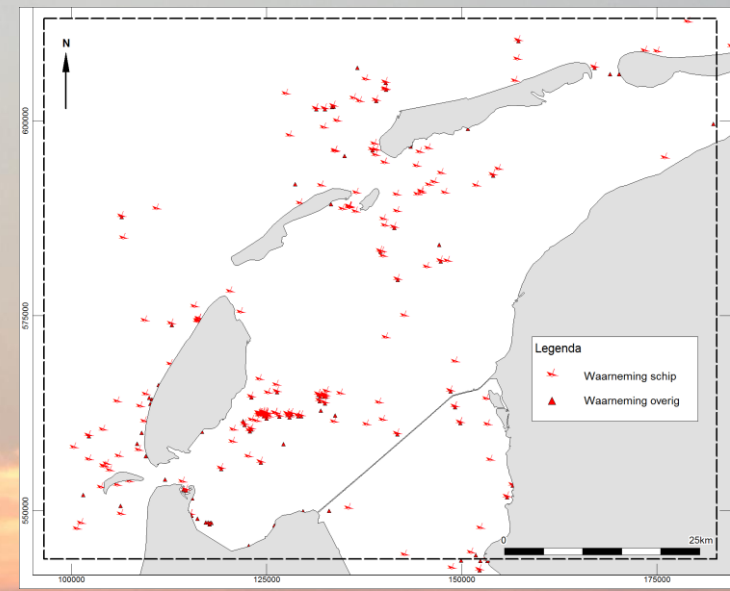
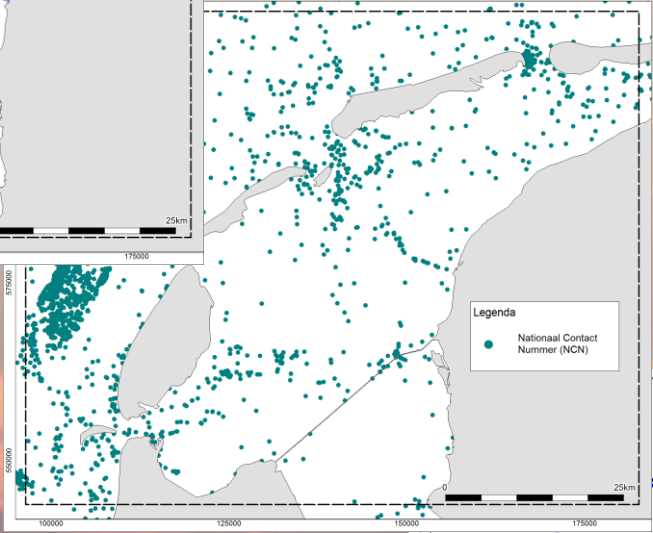
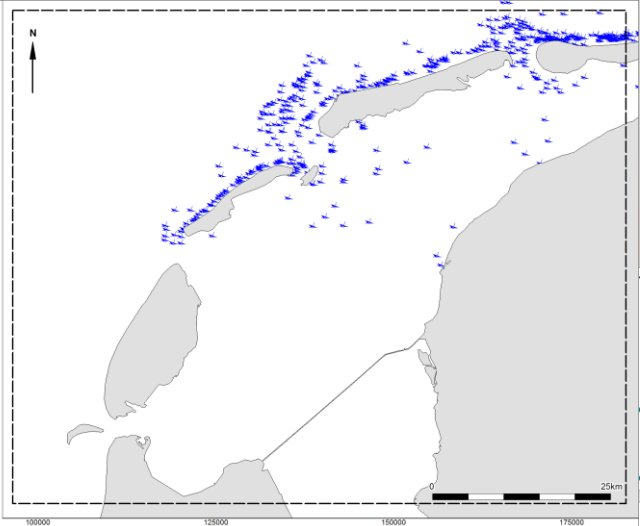


Onzichtbaar erfgoed



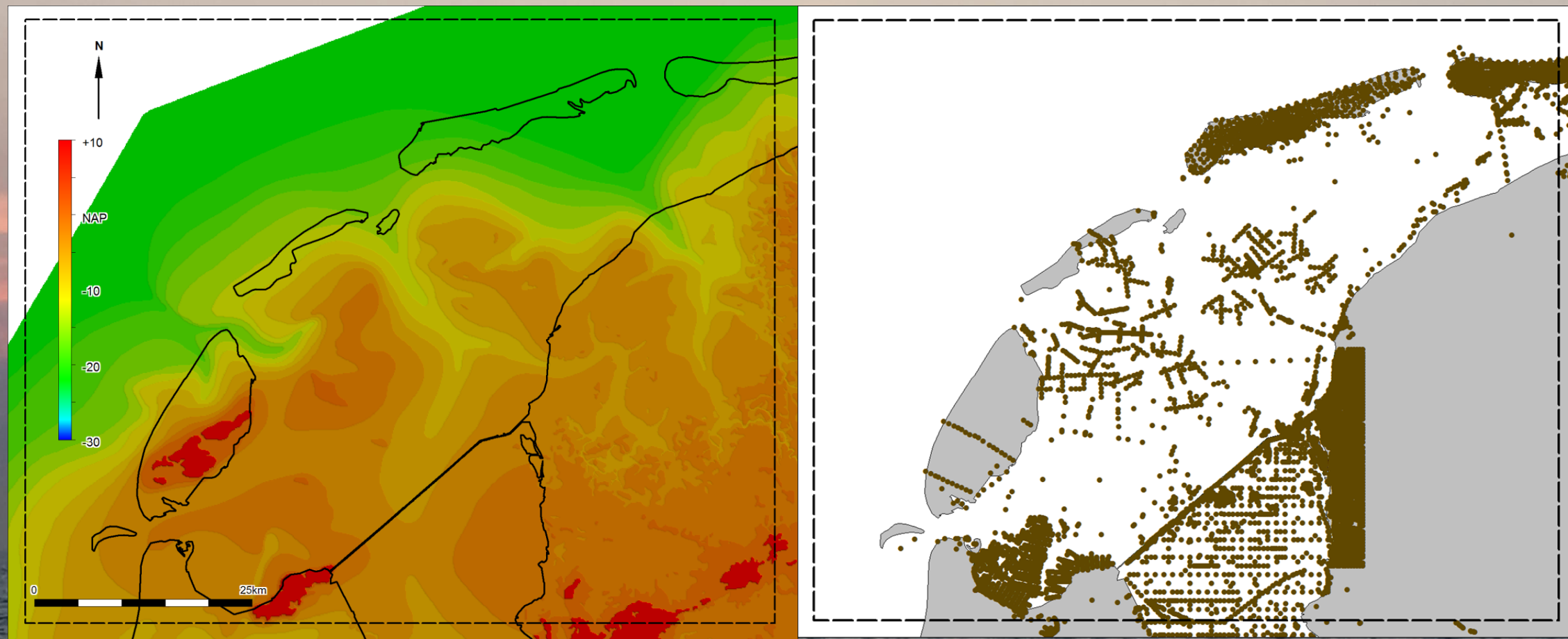
# Positiebepaling

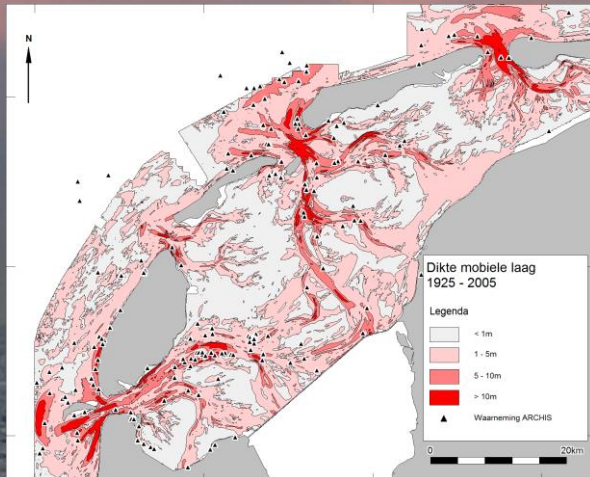
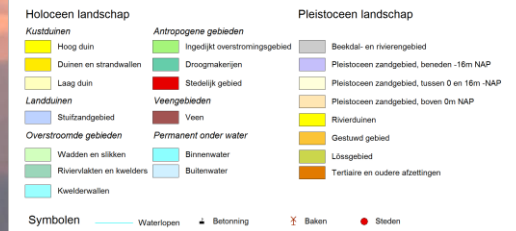
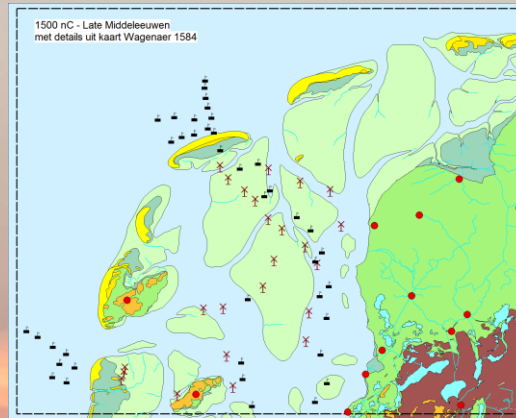
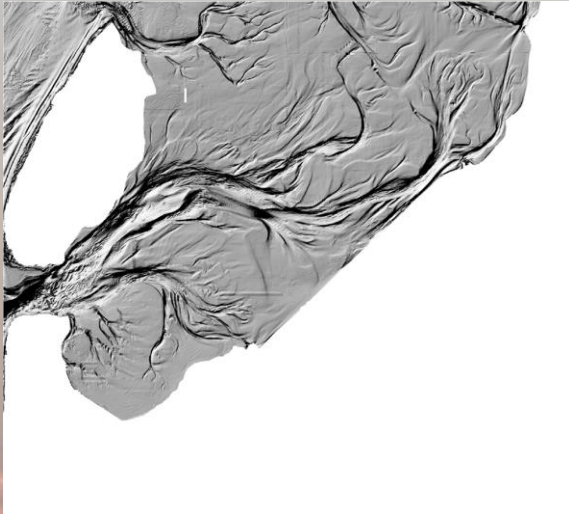




Texelse stenen

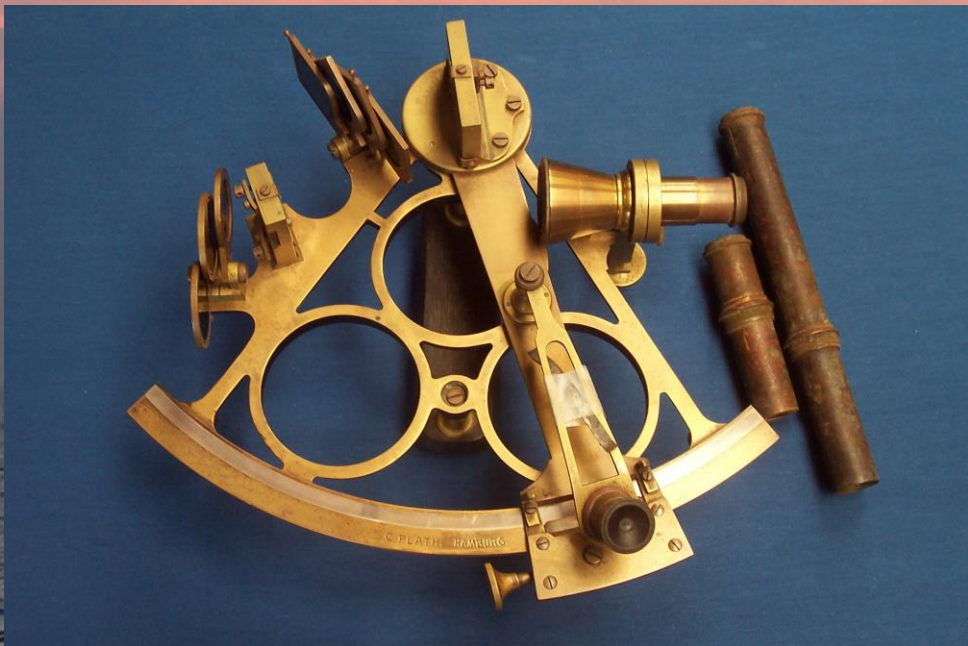
# Individuele sites in context

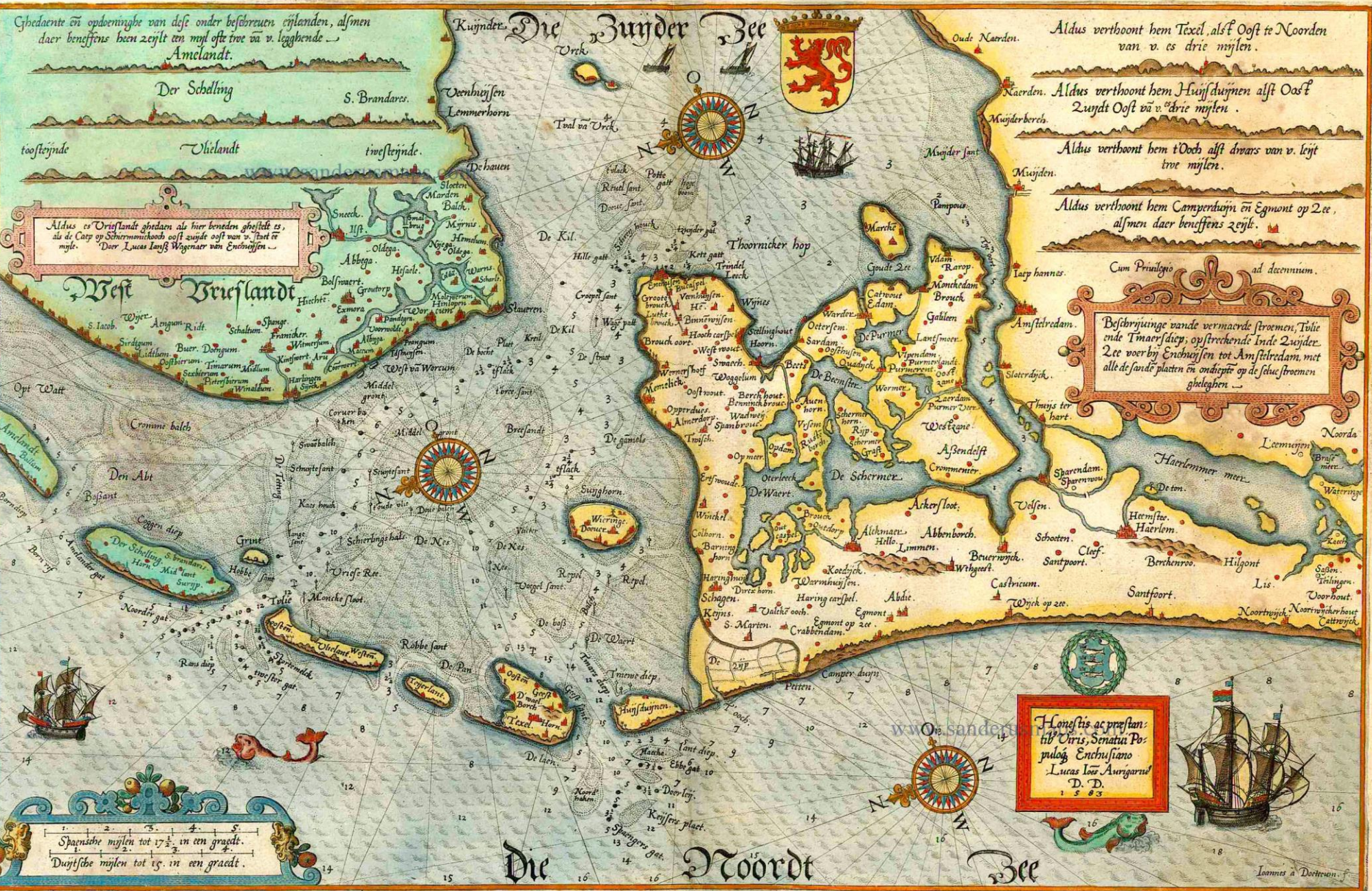






# Positiebepaling in het verleden





Ghedacnte en opdoeringhe van dese onder bescreuen eylanden, als men daer beneffens heen zeylt ten myl of tre va v. legghende  
**Amelandt.**

Aldus es Orieslandt ghedaen als hier beneden gheselt es, als de Casp op Schermnickhoock oost zuydt oost van v. staet te myle.  
 Door Lucas Iansz Wogenar van Enchuyssen.

Aldus verthoont hem Texel, als f Oost te Noorden van v. es drie mylen.

Kaerden. Aldus verthoont hem Huijs duynen alst Oost Zuydt Oost va v. drie mylen.

Aldus verthoont hem t'Ooch alst drans van v. leyt tre mylen.

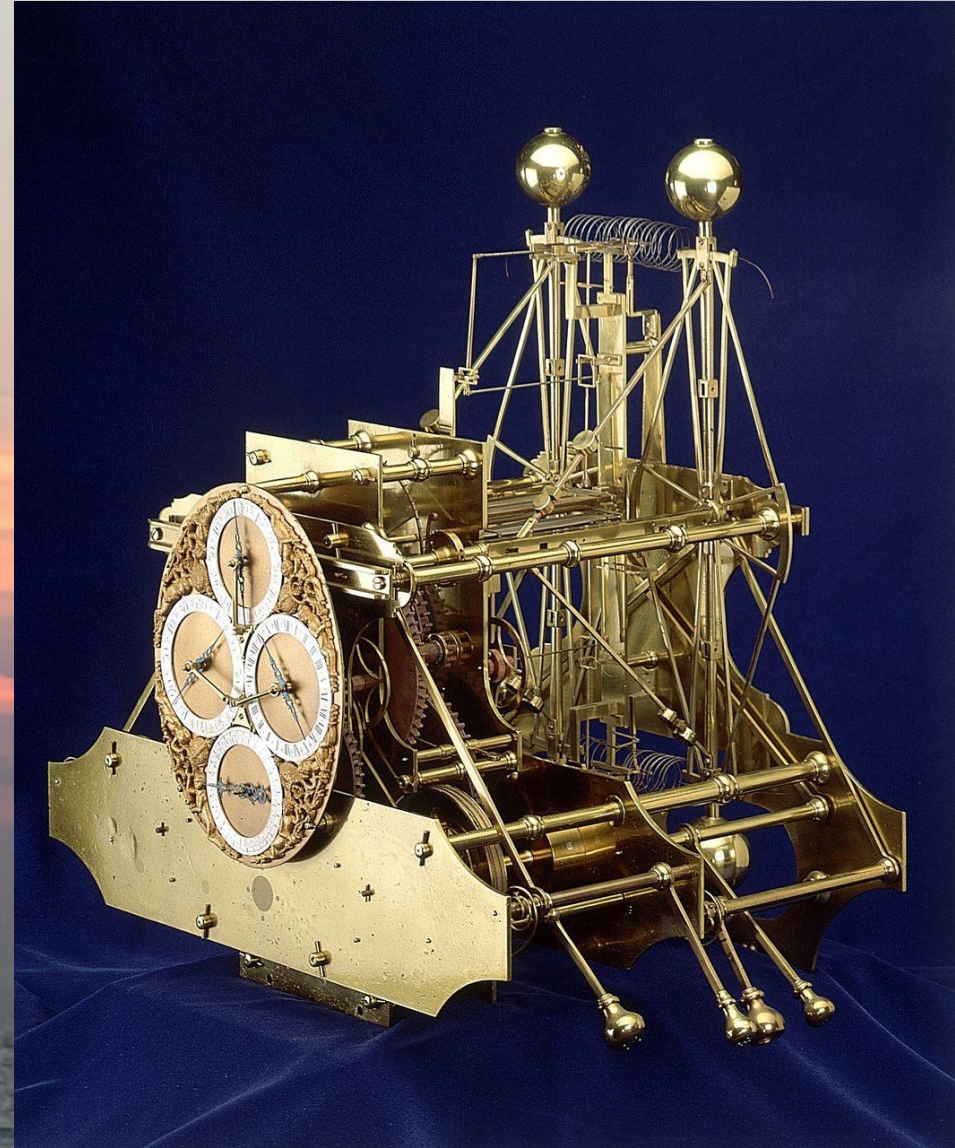
Aldus verthoont hem Campenduin en Egmont op Zee, als men daer beneffens zeylt.

Cum Privilgio ad decennium.  
 Beschryuinge vande vermacde stroomen, Tulie ende Tmaers diep, op strichende Inde Zuyder Zee voer by Enchuyssen tot Amsterdam, met alle de sande platen en ondiepte op de selue stroomen ghescheyt.

J. Honis ac prestan-  
 tib' Oris, Senatui Po-  
 pulog' Enchusiano  
 Lucas Ios Aurigarus  
 D. D.  
 1 5 8 3

Spanische mylen tot 17 1/2 in een graedt.  
 Duytsche mylen tot 15 in een graedt.

Ioannes a Doctoren.

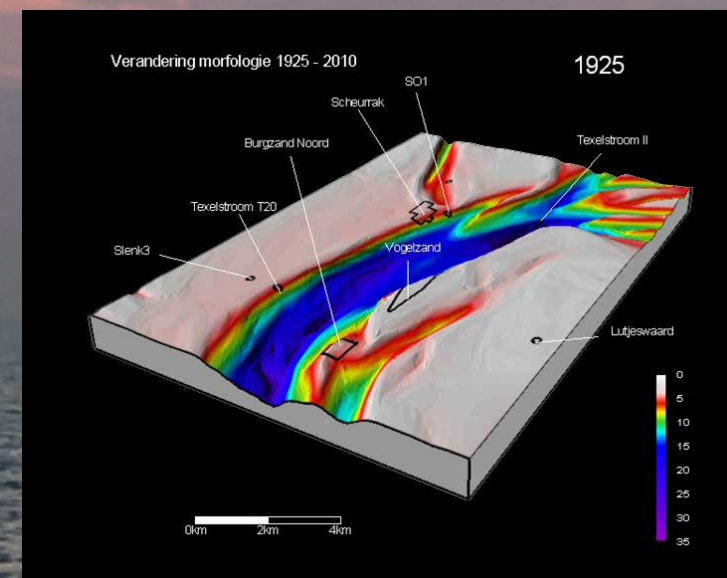
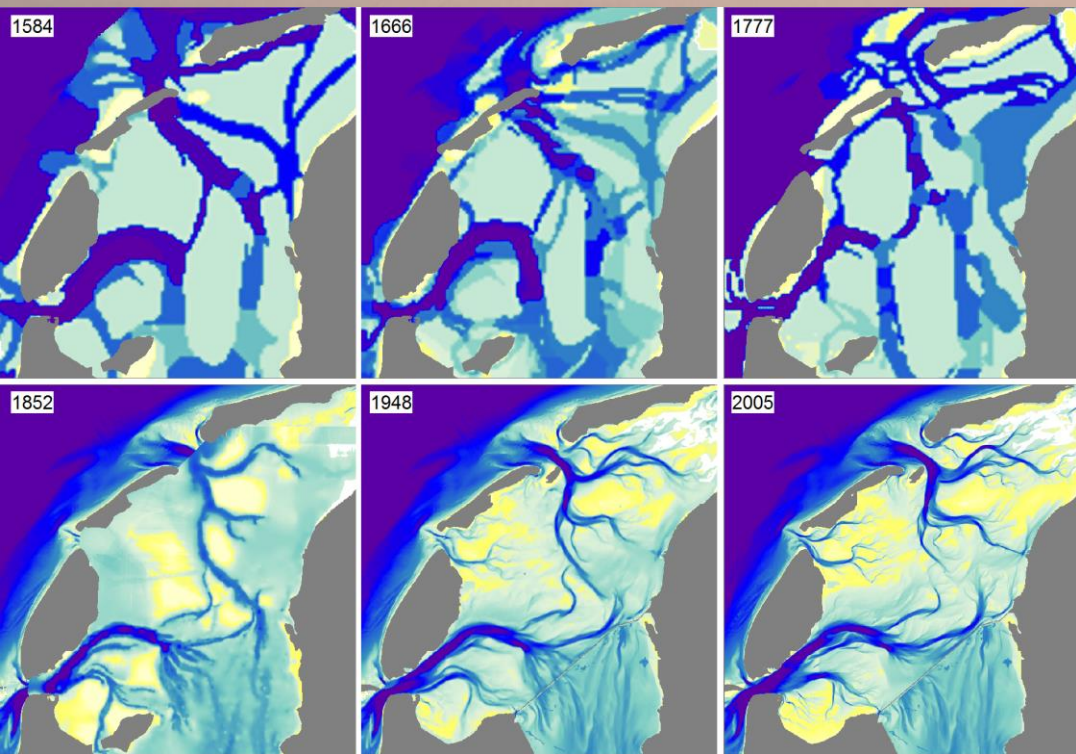


# Land vs zeekaarten



# Een bewegende bodem en kust

- Honderden verdronken dorpen

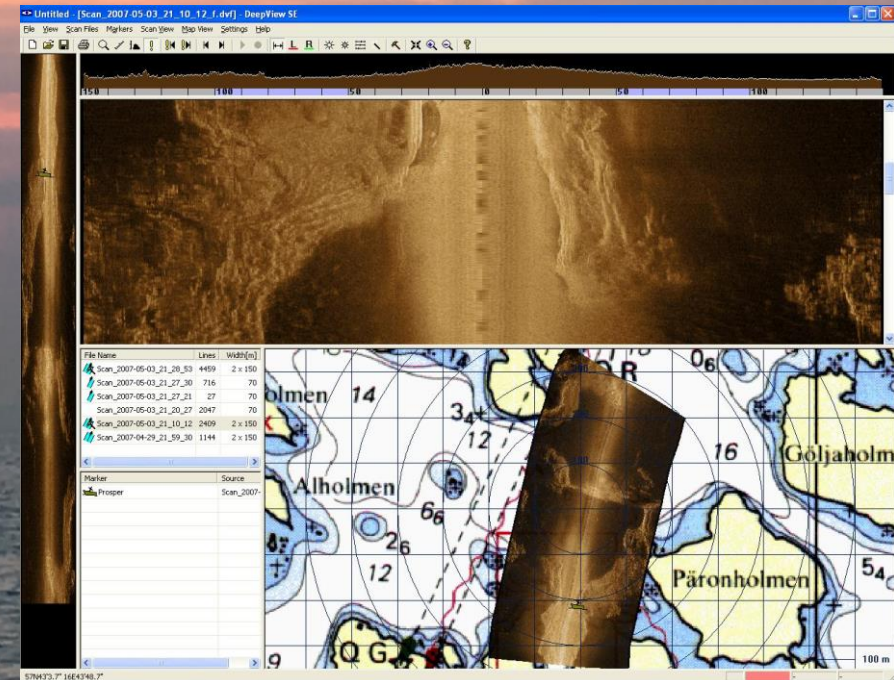
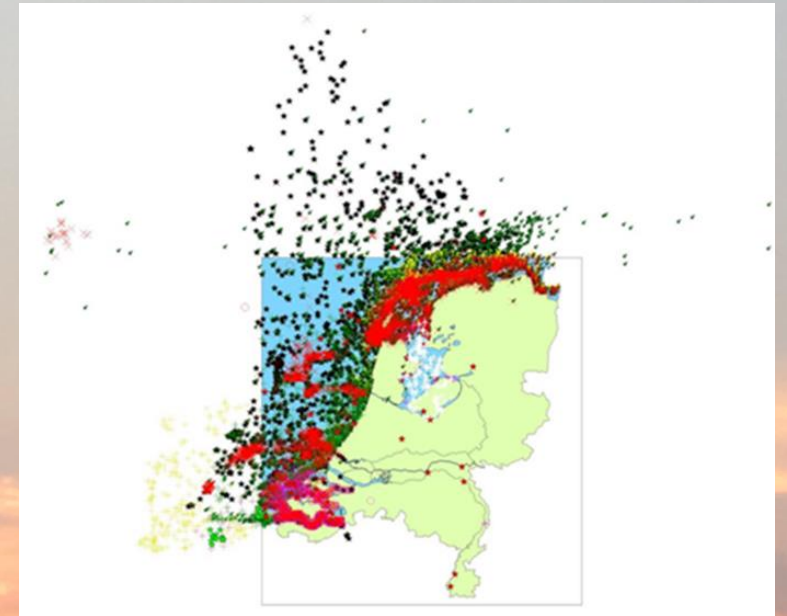
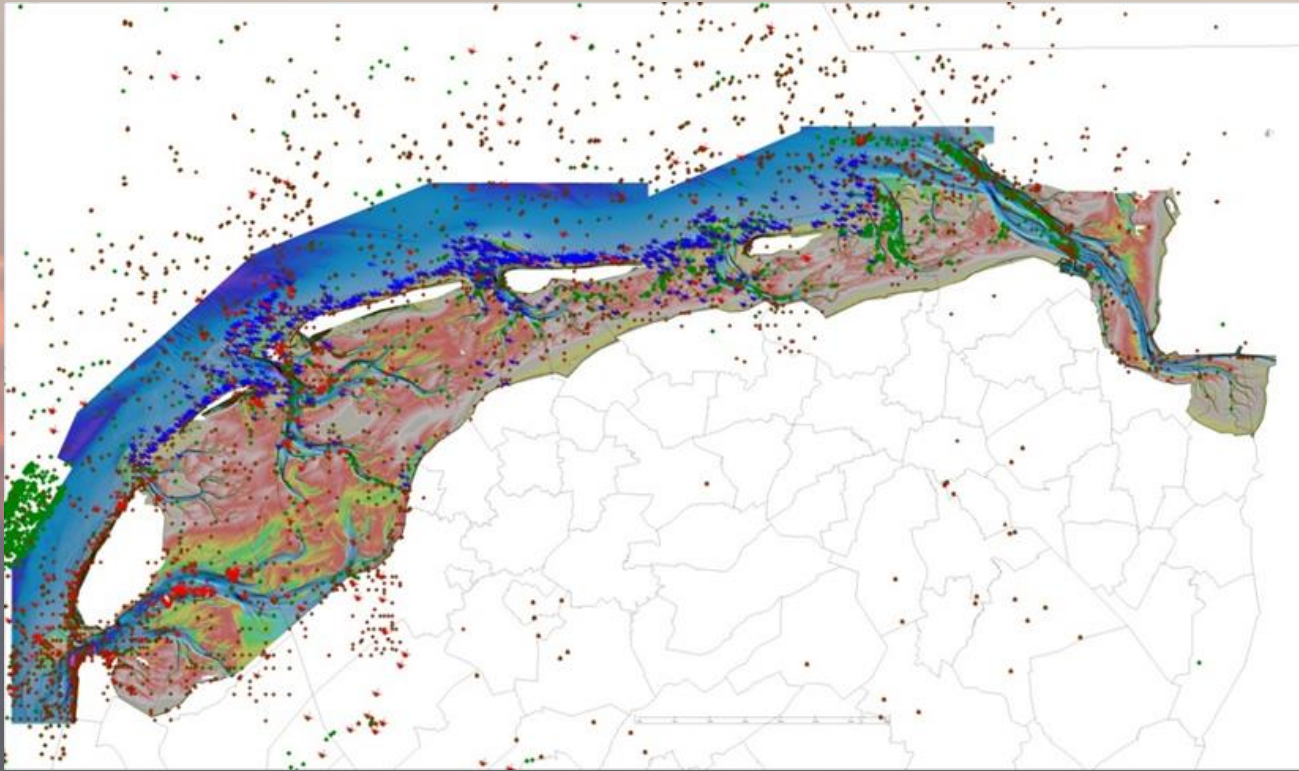


# Zichtbaar maken van het onzichtbare

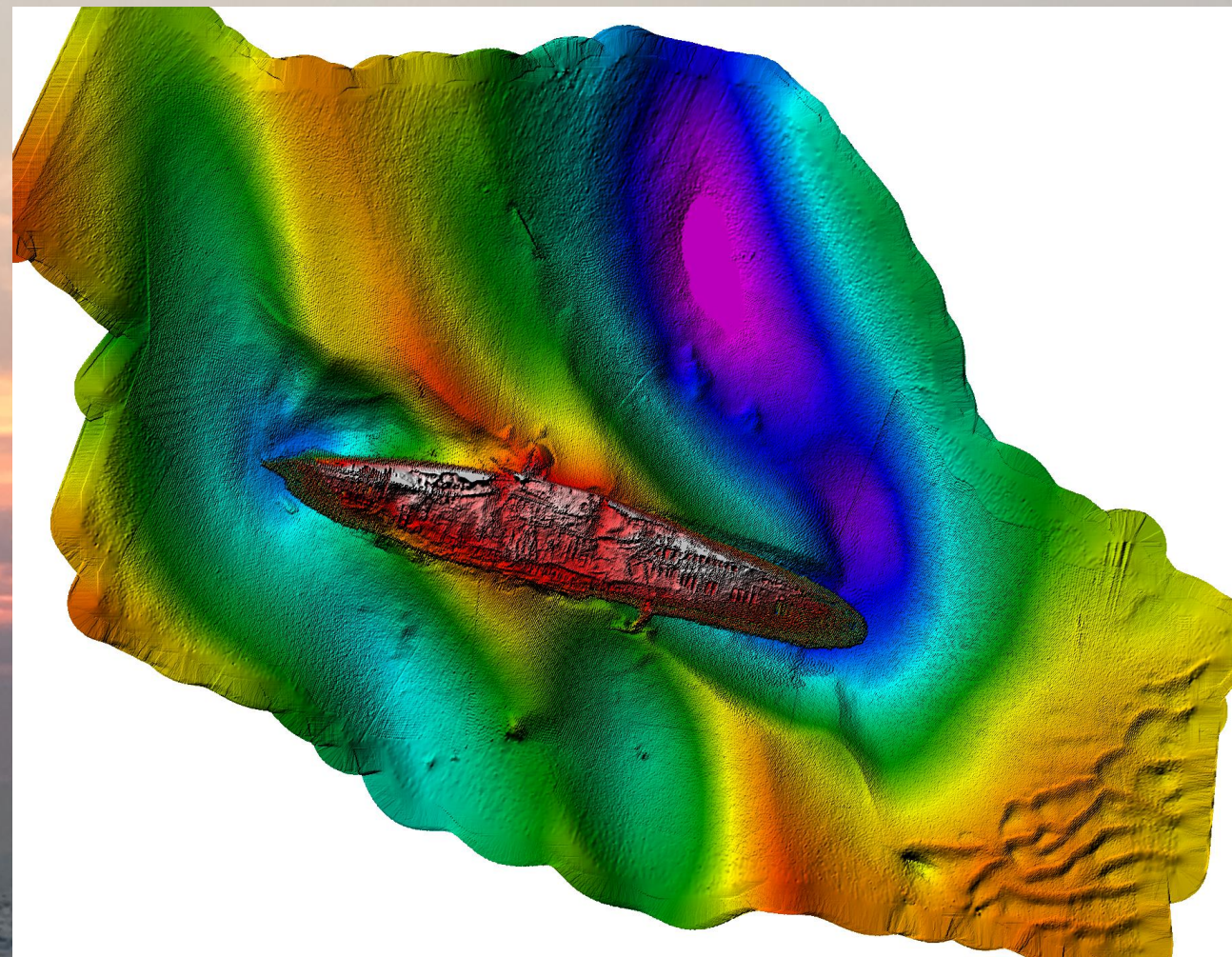
- Side scan Sonar
- Multibeam sonar
- Subbottom Profiling
- Magnetometer



# Opsporen



# Waarderen



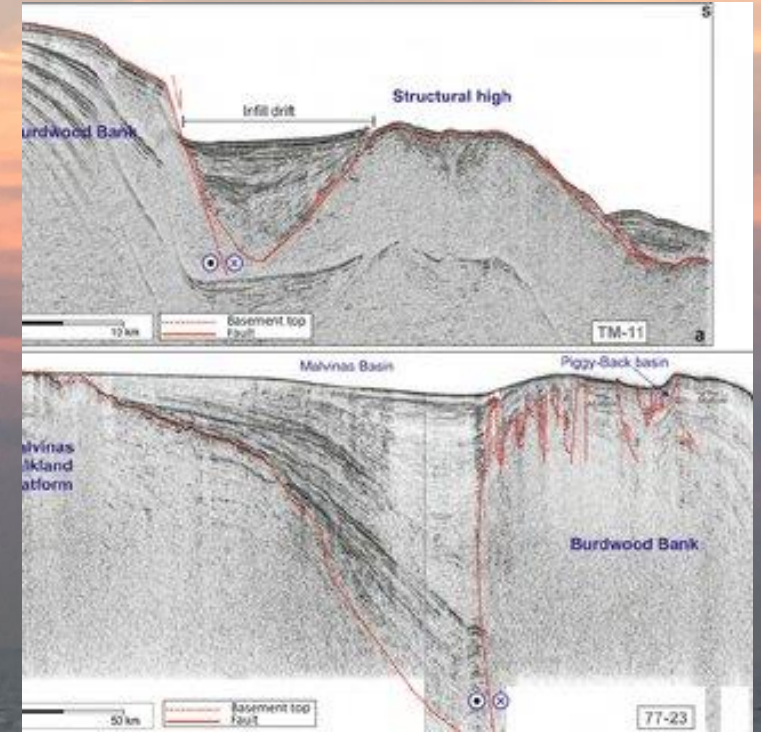
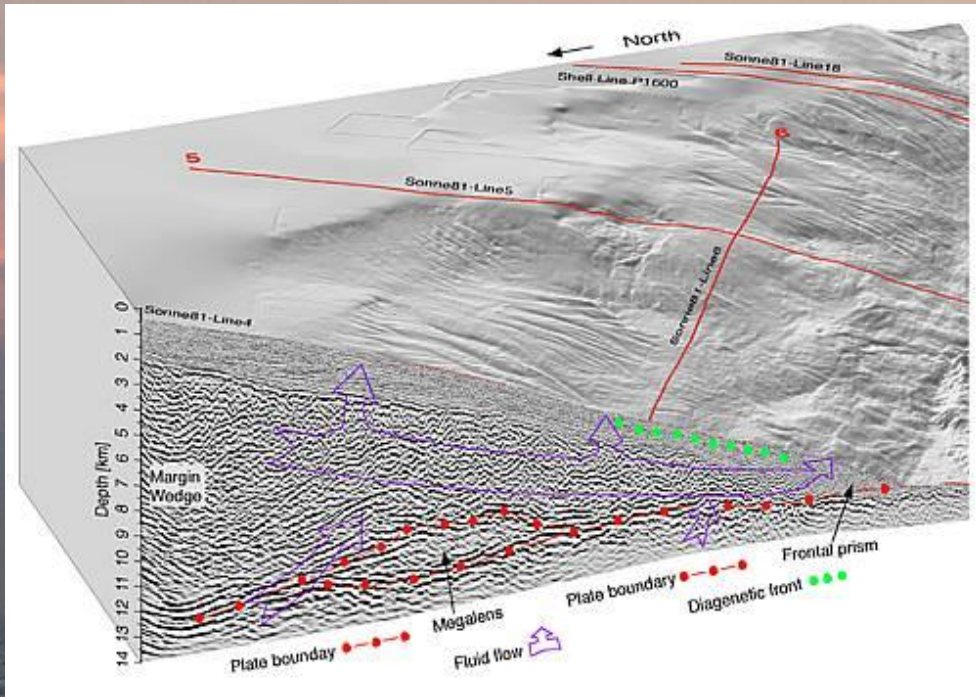


# Opgraven

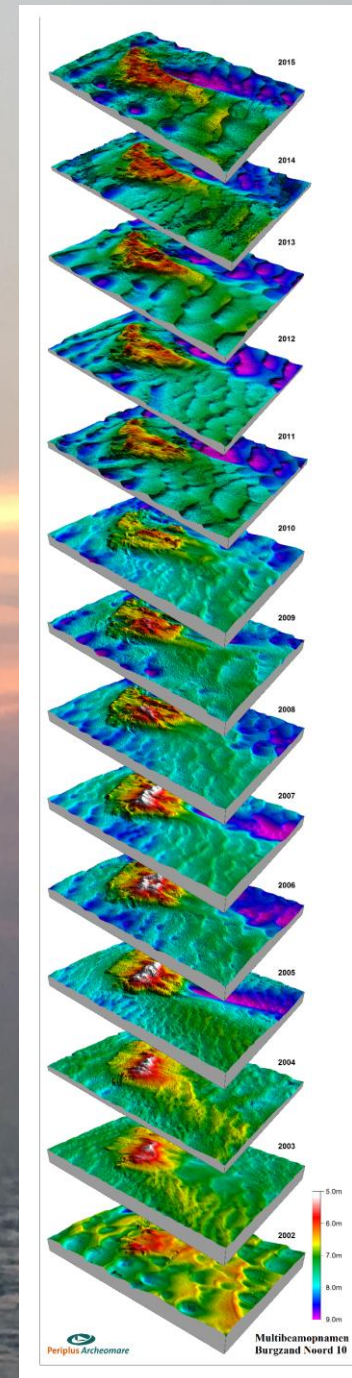
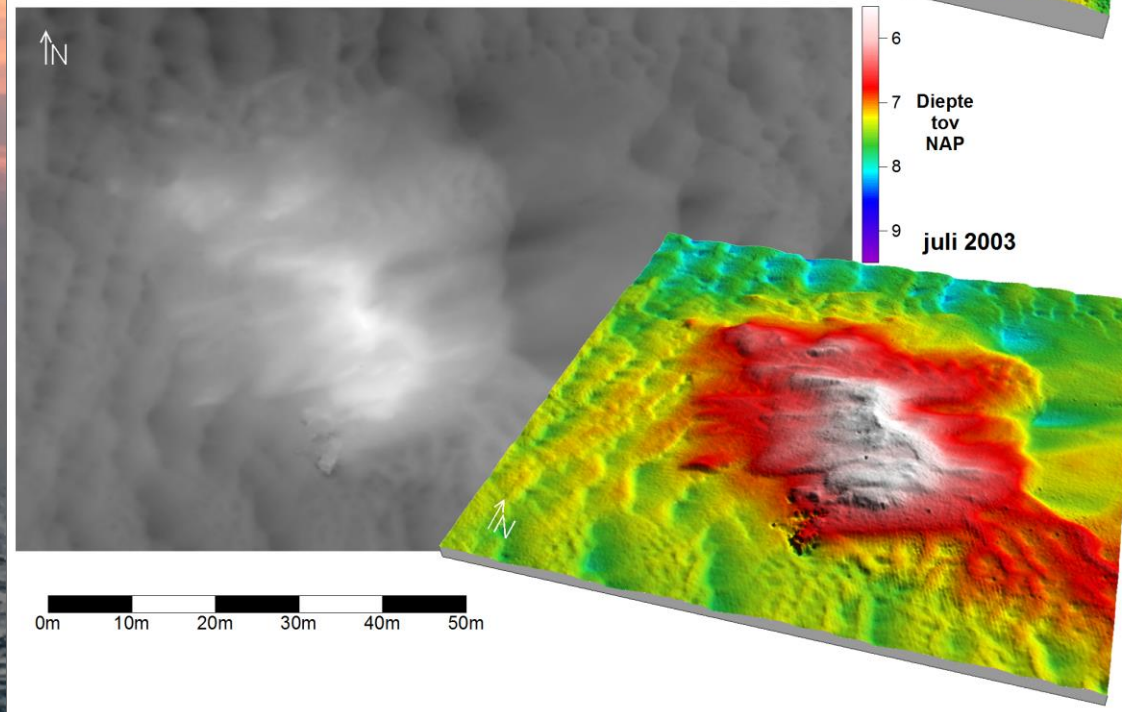
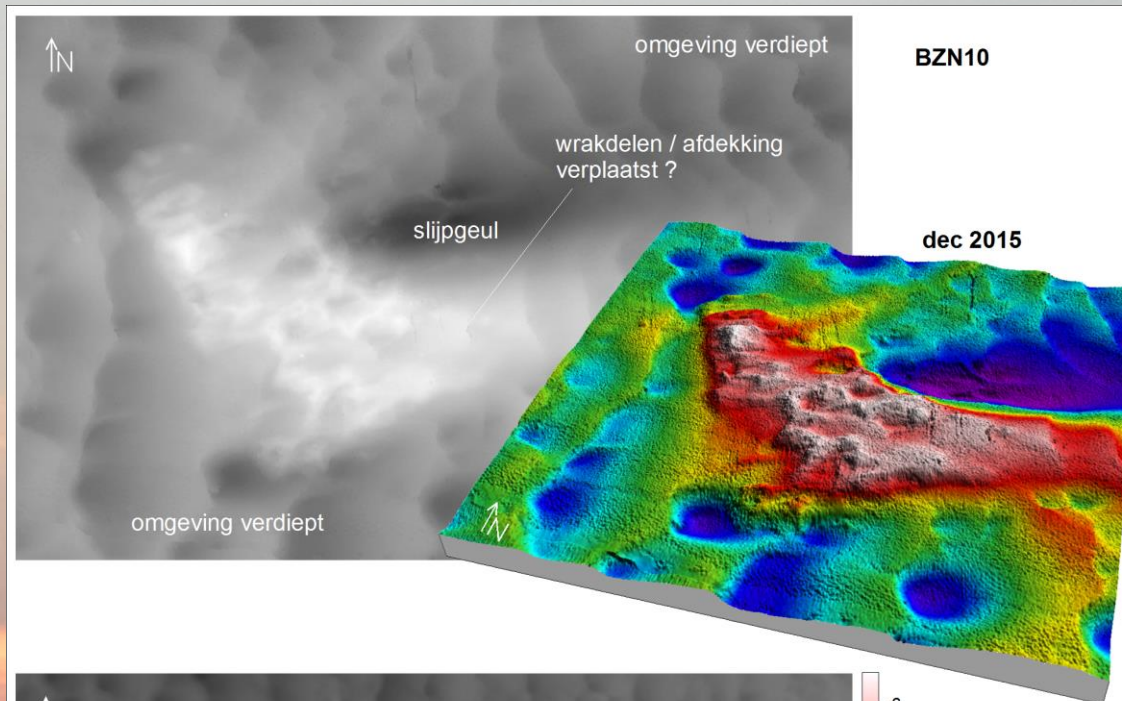
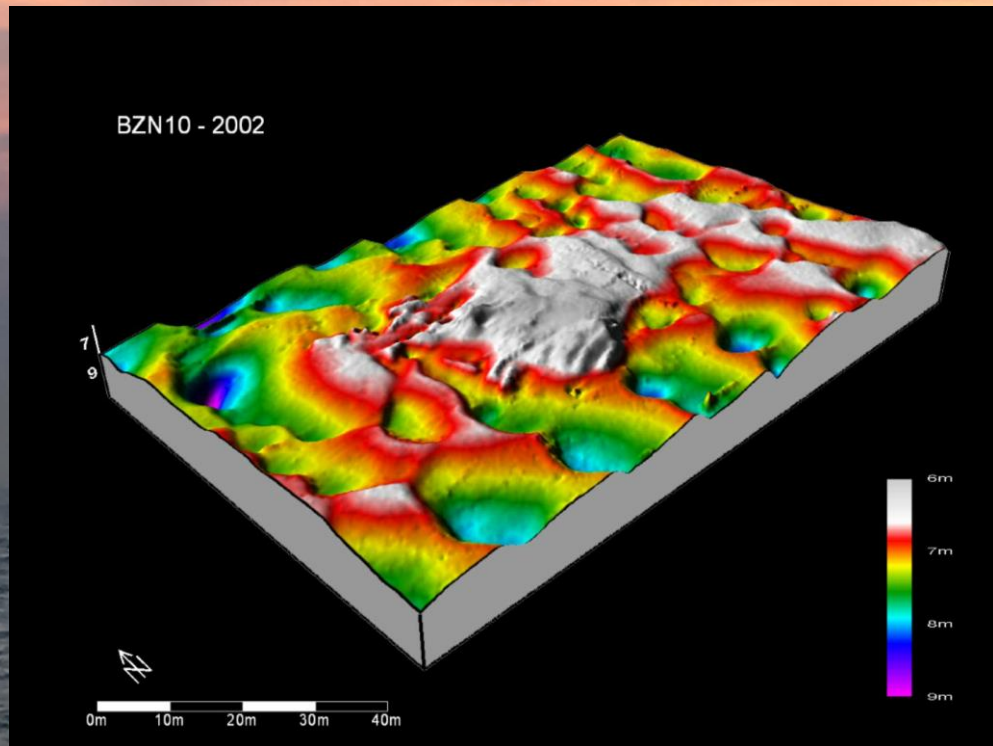
- Van overzicht naar detail en andersom

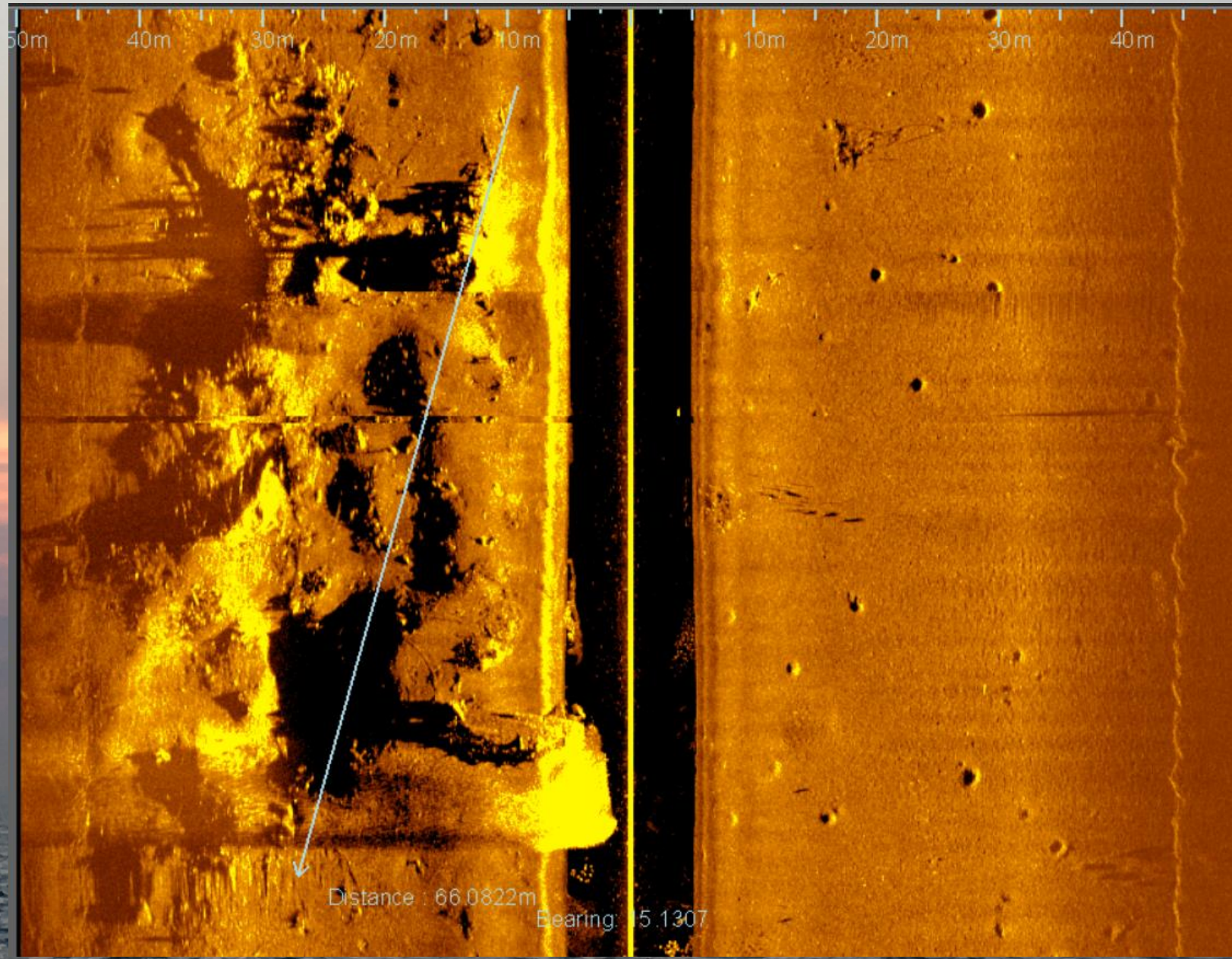


# Reconstruieren van landschappen

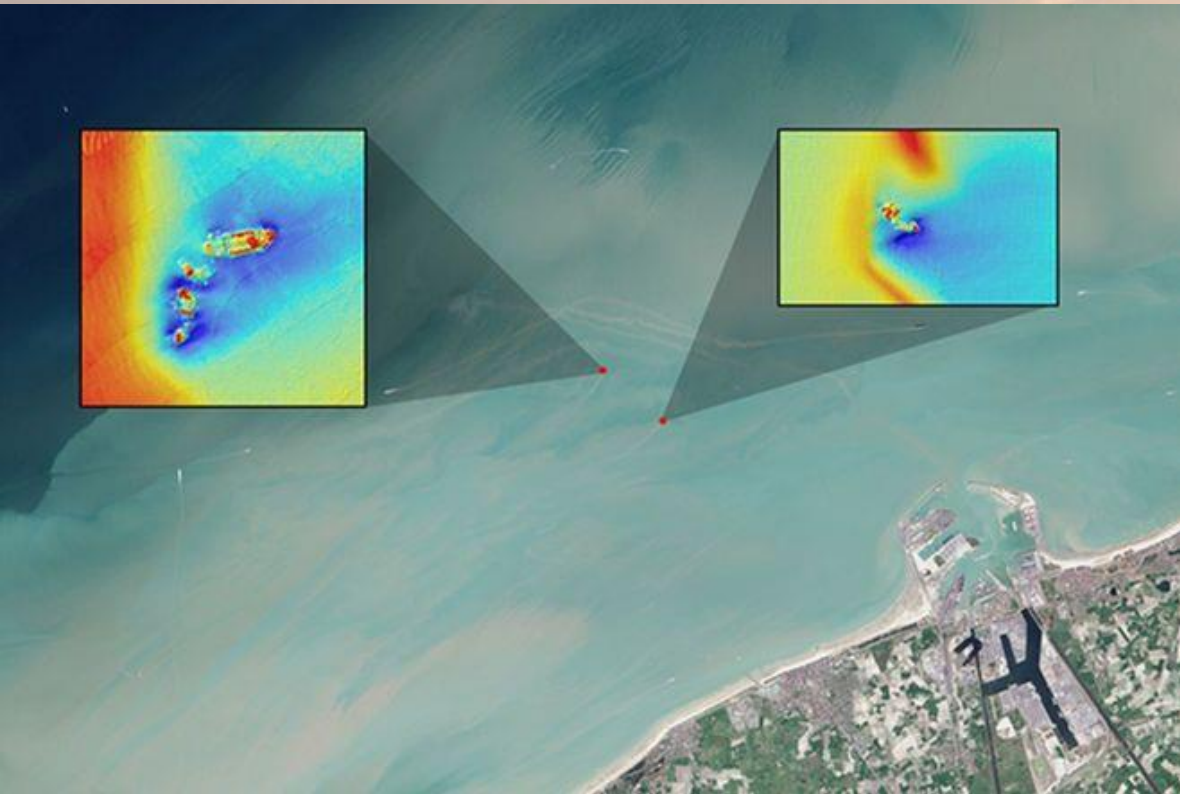


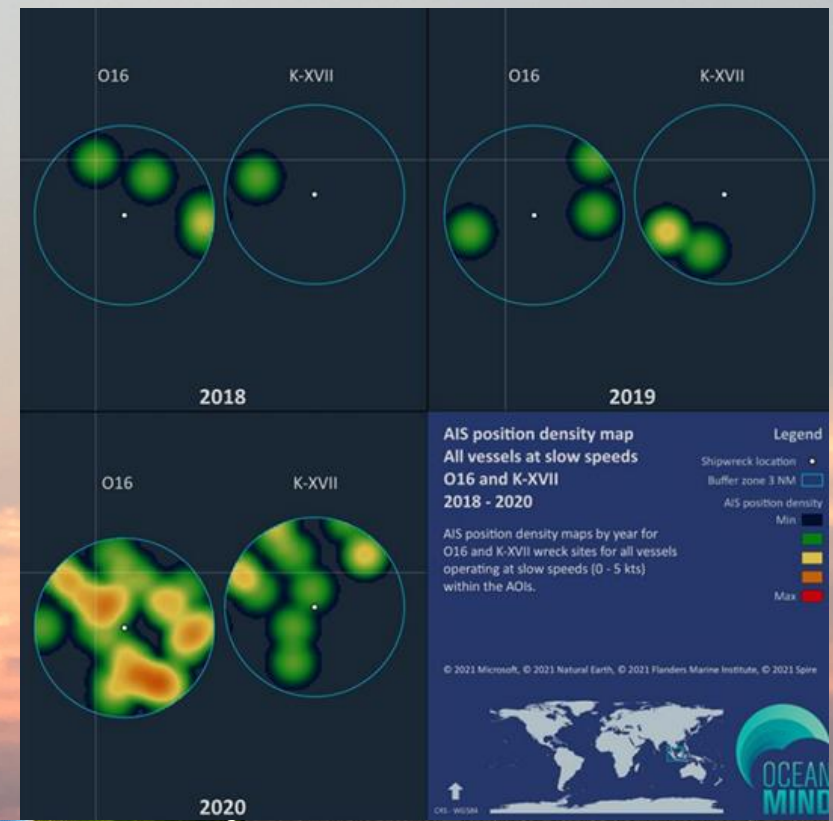
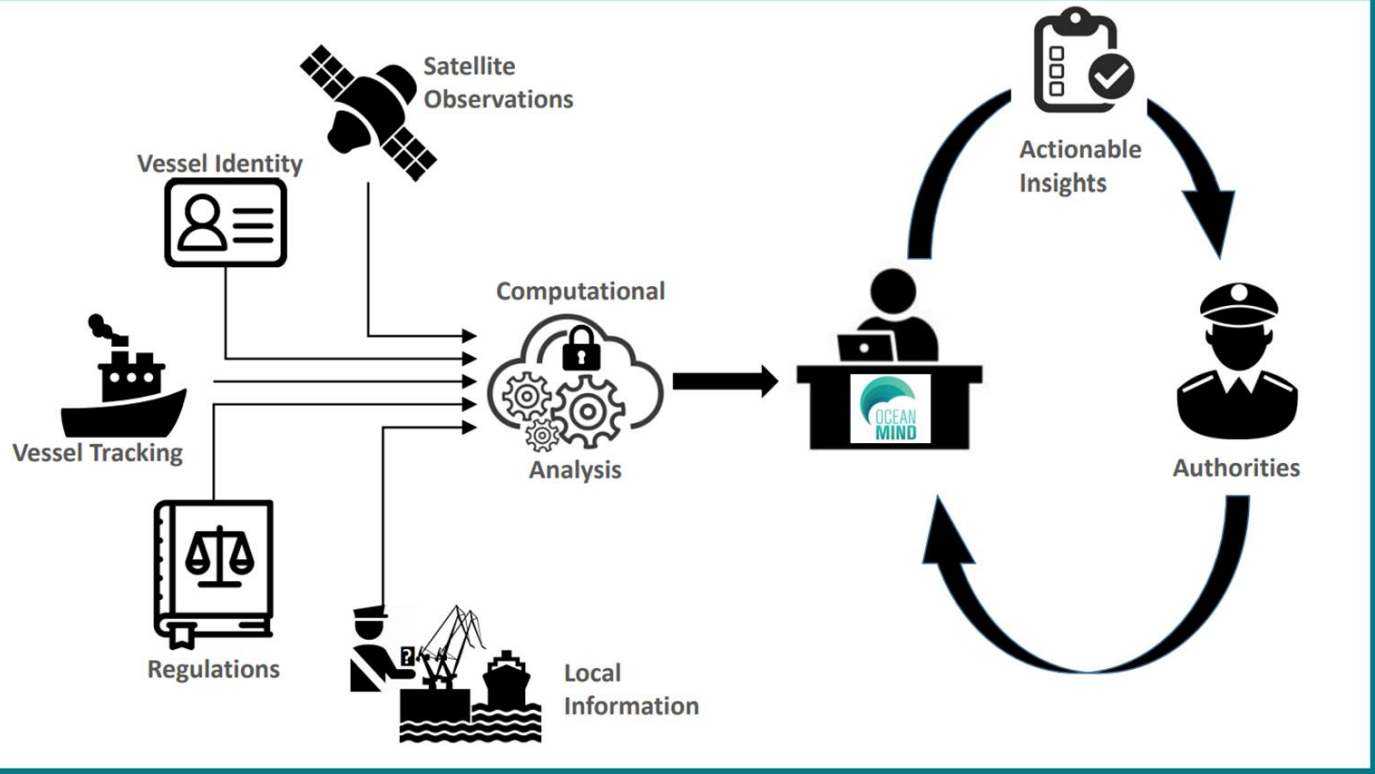
# monitoren



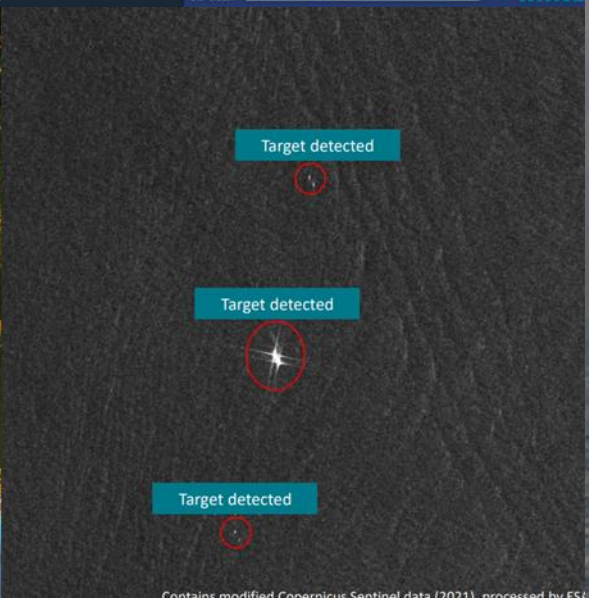
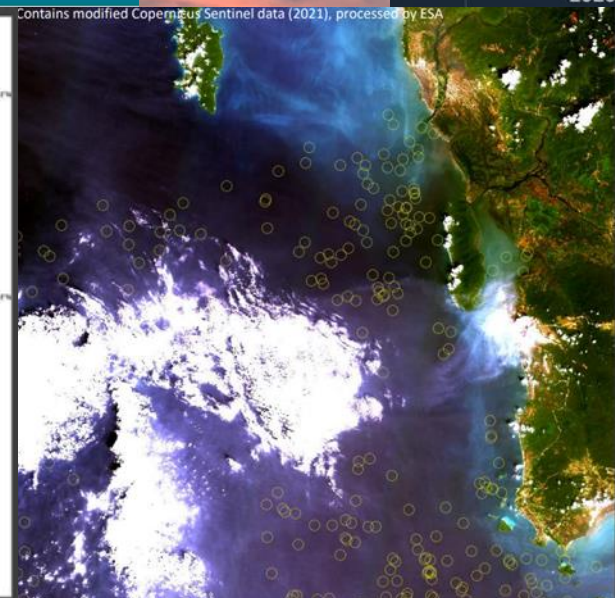
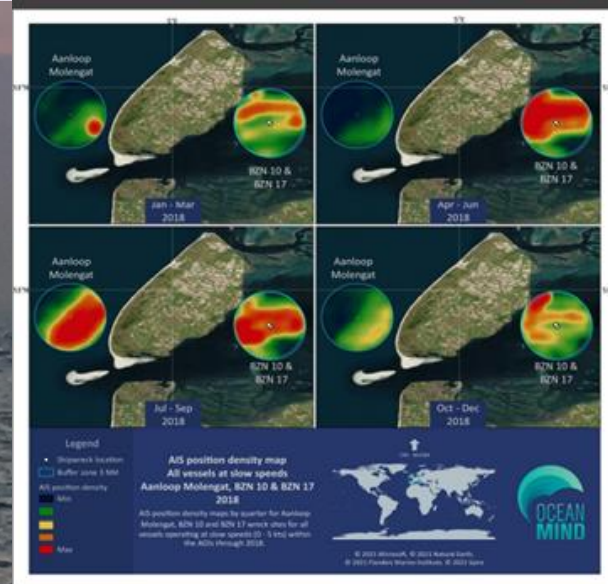


# Vanuit de lucht





AIS (tracking)  
 SAR (radar)  
 Optical analyse (foto)  
 VIIRS (infrarood)



Contains modified Copernicus Sentinel data (2021), processed by ESA

Contains modified Copernicus Sentinel data (2021), processed by ESA

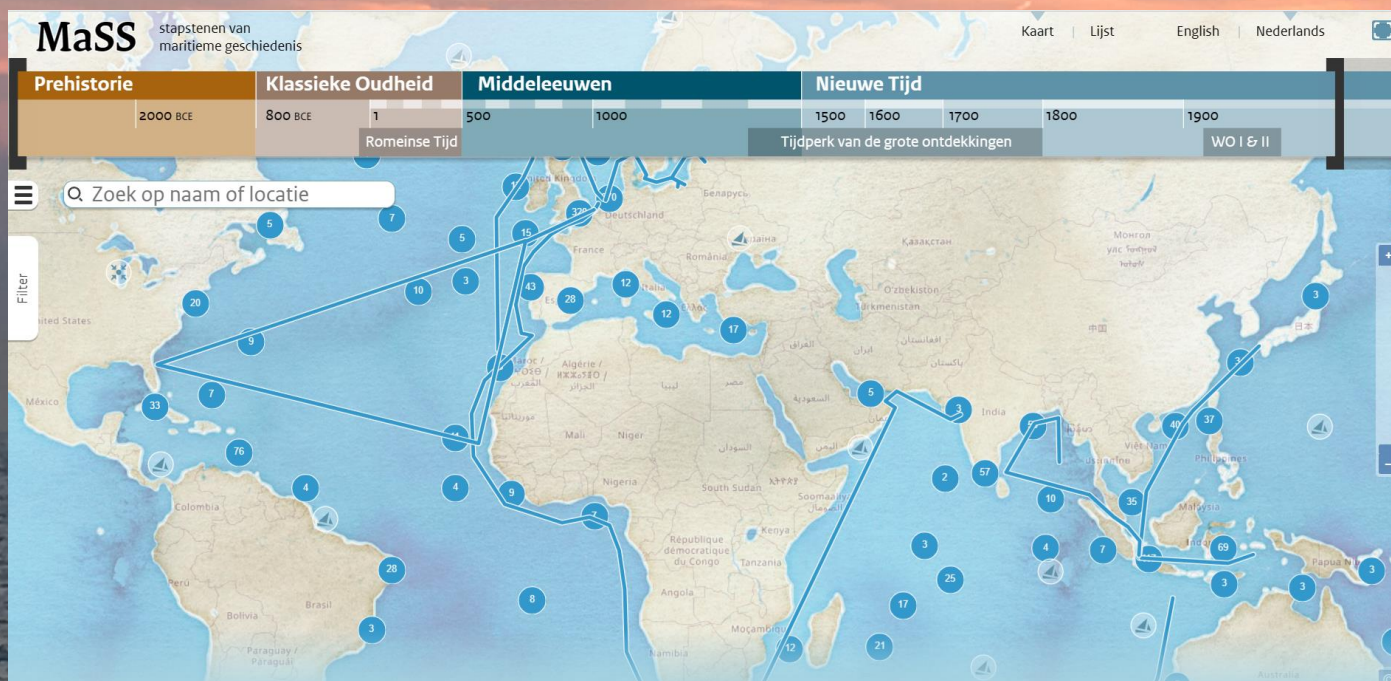


# Wrakkentelling

Een kwantitatief onderzoek naar historische  
Nederlandse scheepswrakken in de wereld

[www.cultureelerfgoed.nl](http://www.cultureelerfgoed.nl)

[Mass.cultureelerfgoed.nl](http://Mass.cultureelerfgoed.nl)



# Conclusie

- Geo-informatie is heel belangrijk in de onderwaterarcheologie, niet alleen vanwege het krijgen van grip op de archeologische locaties zodat we meer kunnen leren van onderlinge samenhang van vondsten en vindplaatsen binnen een (maritiem) landschap, maar ook voor het beheer van die locaties in de toekomst.
- Steeds betere en nieuwe methoden maken dit werk eenvoudiger en accurater.



# Eindpublicatie Maritiem Programma Internationaal

- <https://www.cultureelerfgoed.nl/publicaties/publicaties/2022/01/01/eindrapportage-programma-maritiem-erfgoed-internationaal>



Rijksdienst voor het Cultureel Erfgoed  
Ministerie van Onderwijs, Cultuur en  
Wetenschap

**Maritiem Erfgoed  
Internationaal**

*Eindrapportage 2017-2021*