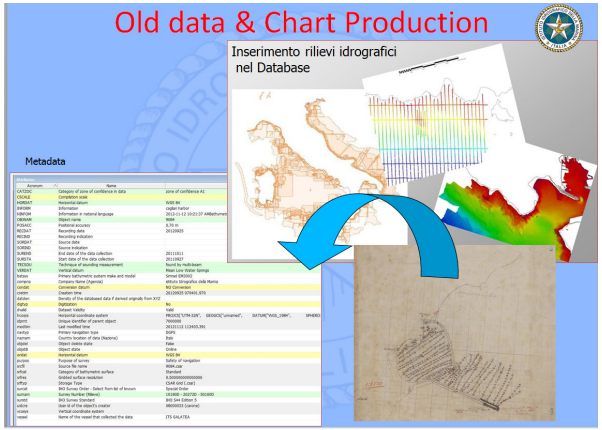
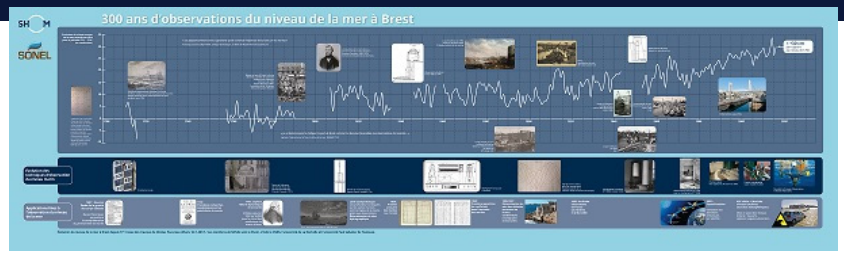


IHO European Network

Plenary Session

27th Feb, French RP, Brussels



HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

- **HOs have;**
  - 300 years old data or more
  - Charts, Tide gauje,

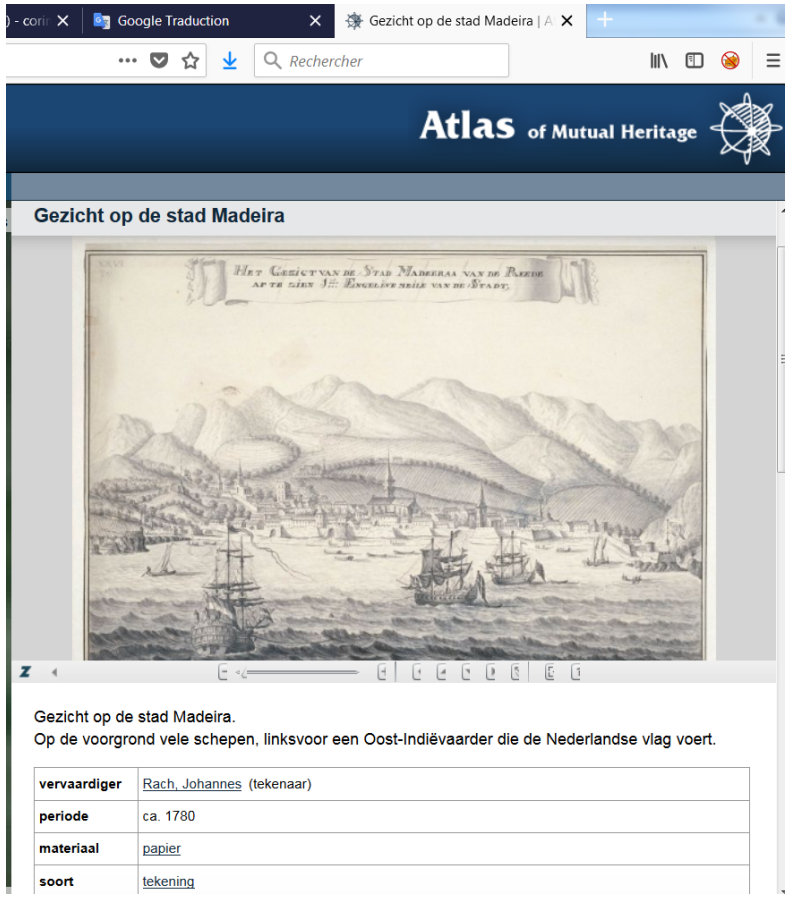
  These are historical documents to save **AND** precious data for the reconstitution of :
  - Evolution of the coastal areas
  - Modelling of climate change

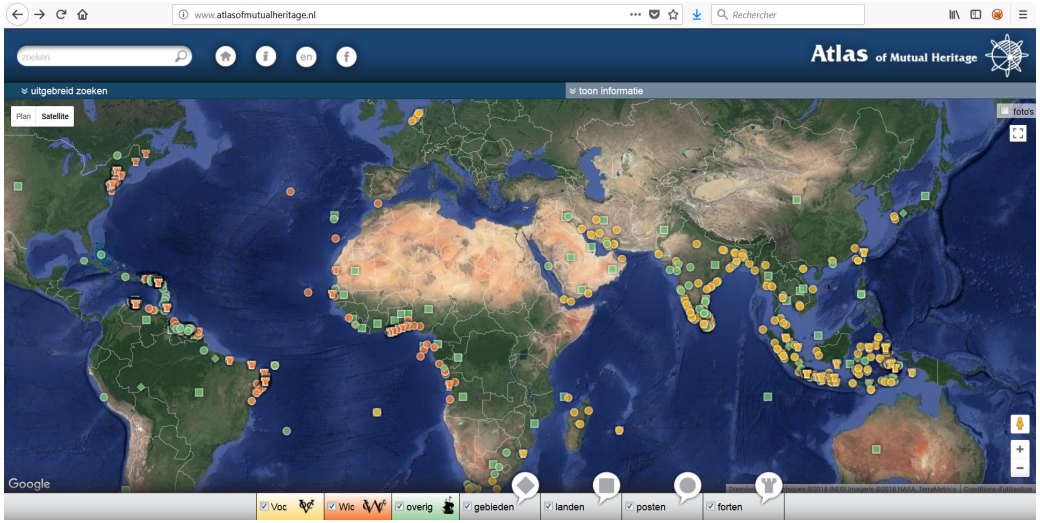
  They can work by State AND by Maritime Basins

HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

NETHERLAND





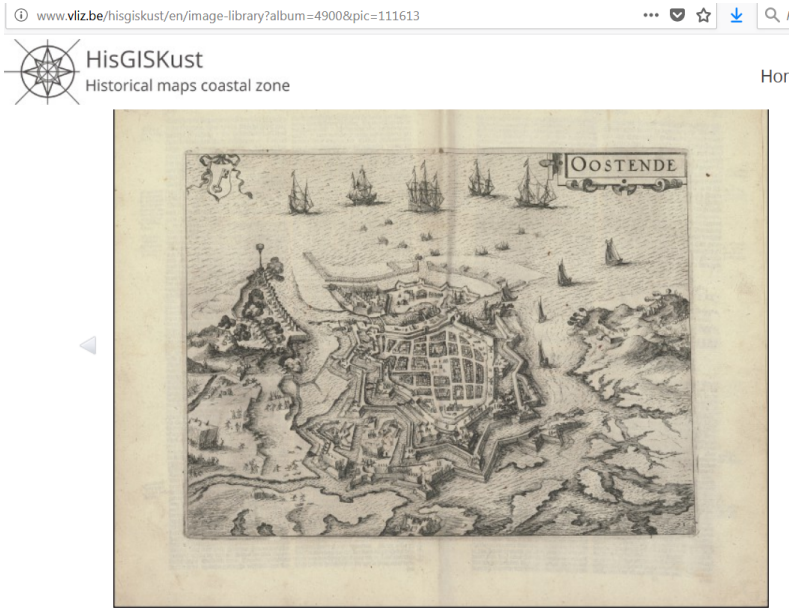
1. Only tide gauge records and nautical charts together provide a full understanding of the impact of long term water level change. Because of the very different nature of these data sets, they should be organized in different subprojects.

2. Historical tide gauge data are currently dealt with by GLOSS (IHO CL04/2012), with a liaison to the IHO TWCWG. A new European project could stimulate the GLOSS work enormously. In NL, tide gauge data for the past few decades is available through http://live.waterbase.nl/waterbase_wns.cfm?taal=en.

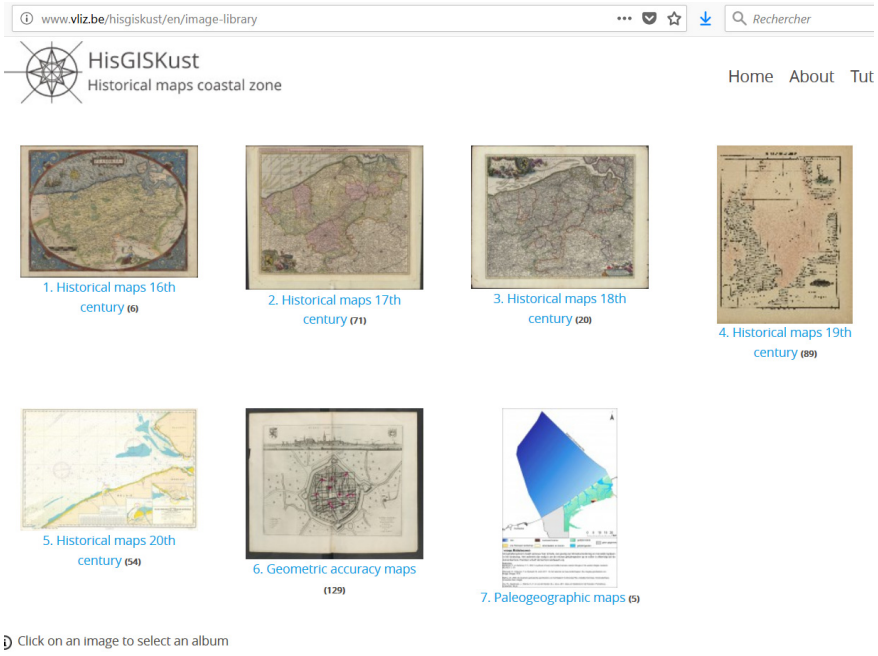
HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

BELGIUM



Descrittione ...di tutti i Paesi Bassi...
Oostende
Description Historical maps from the collection of Cultuurbibliotheek (Sint-Lodewijkscollege, Brugge), which were scan by VLIZ in the framework of the project 'Historical maps of the coastal zone' (Funding: Province of West Flanders).
Author Guicciardini, Lodovico (1581)



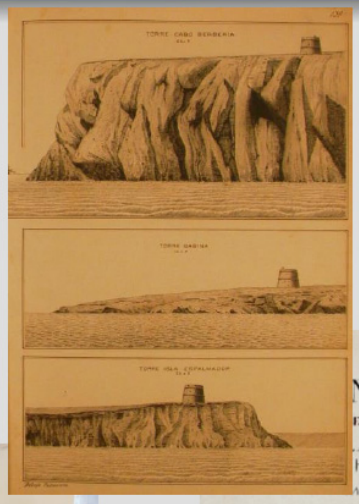
HISTORICAL DATA-DATA RESCUE

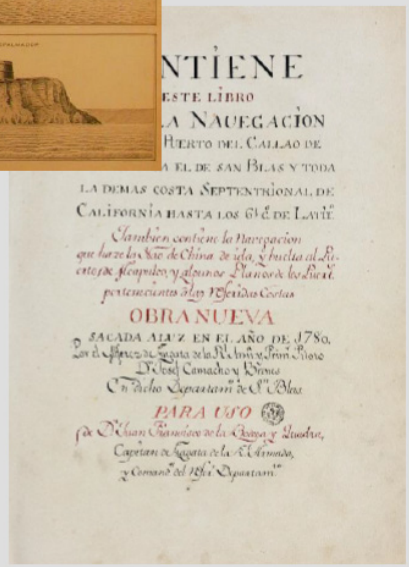
OUR MEMORY FOR THE FUTURE GENERATIONS

SPAIN

IHM HISTORICAL ARCHIVES

991 Copper plates (1740-1950)
5400 Nautical charts (1740-1970)
820 Surveys and documentation (1783-1950)
104 Annual memories (1944-2009)
455 Photographs (1944-1990)
75 Coastal views (1920-1960)
750 Historical documents (XIX-XX cent.)





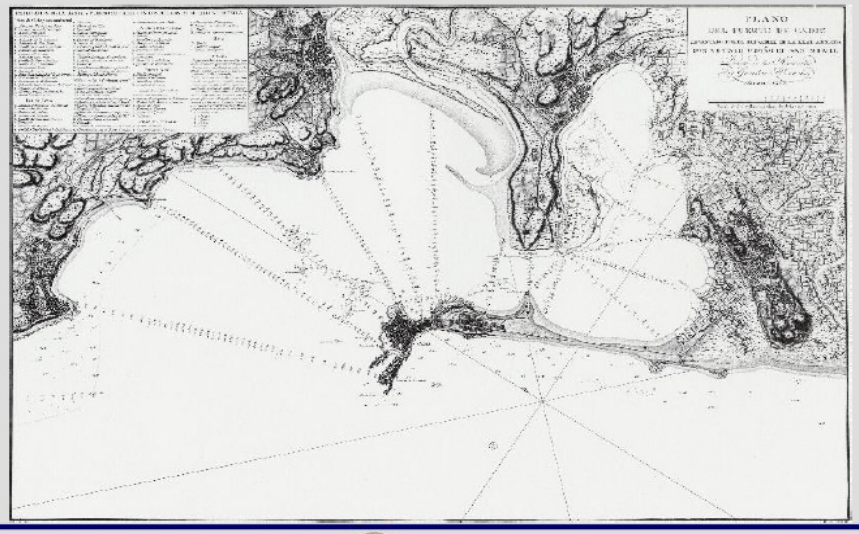
IHM HISTORICAL ARCHIVES

- Current works

Digitazing historical nautical charts and surveys, georeference and store them in a Database.

- Future Plans

Digitaze 200 tide observation rolls (XIX cent.).



HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

Italian Hydrographic Institute (IIM) Archives Consistency

Over **18 000** paper documents including:

10 000 maps in rolls (geodesy, bathymetry and topography since 1872)

8 000 nautical charts since 1873

30 coastal views

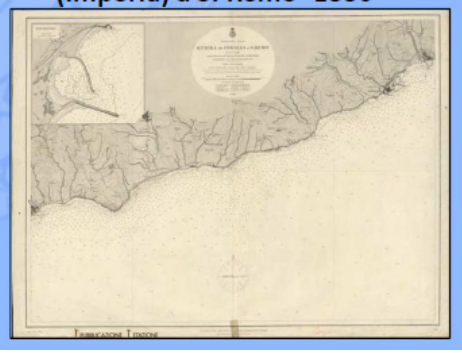
150 packages containing documentation survey

500 folders containing documents nautical charts

over 1000 Tide observation rolls from 1884 in Genova

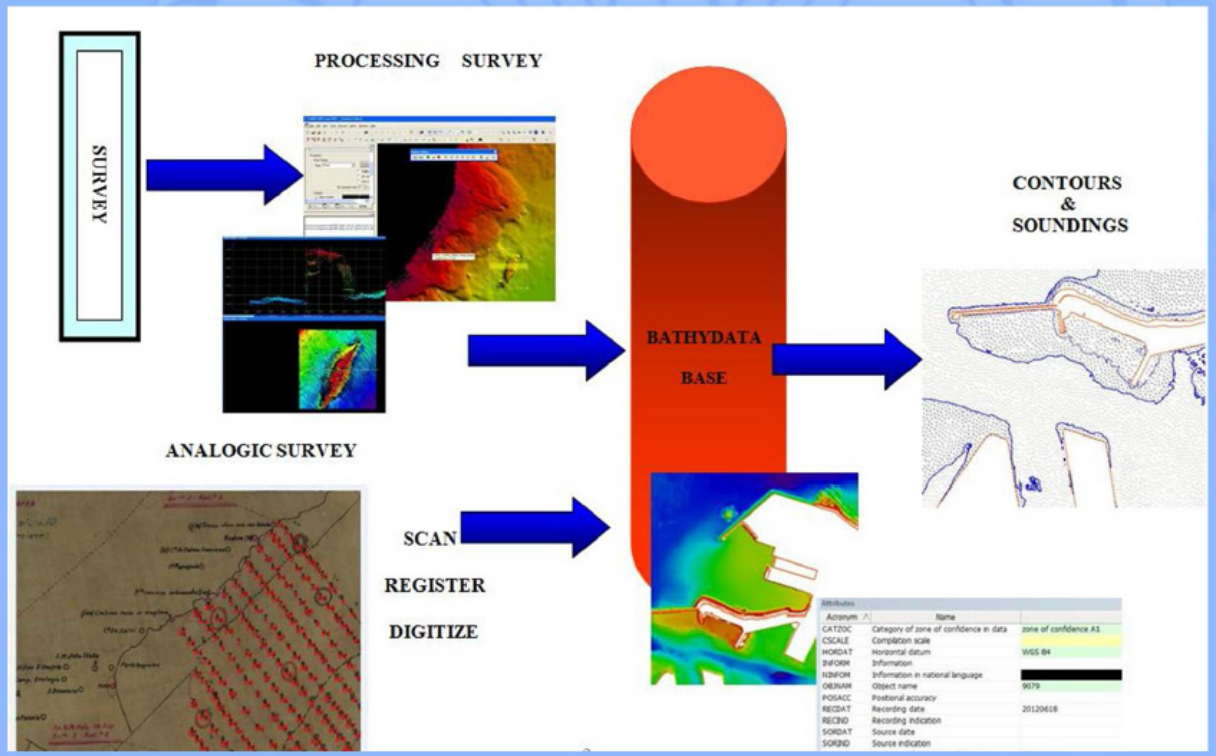
Porto Maurizio (Imperia) - 1895

Nautical chart **122 Da Oneglia (Imperia) a S. Remo** -1886



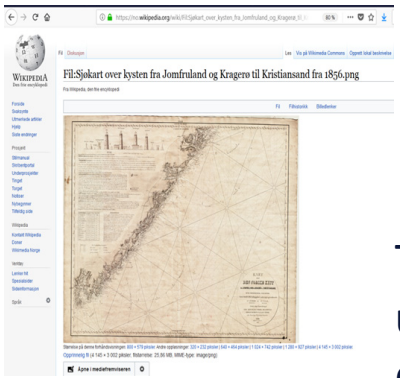
Future Plans

to digitize all the 18.000 documents (old charts, survey sheets and survey reports) to store them in a dedicated and shared Web-Database.



Historical Nautical Charts Norway

- The Norwegian Mapping Authority has released its central national datasets as open data: https://www.kartverket.no/en/data/Open-and-Free-geospatial-data-from-Norway/
- 80% of the historically valuable nautical charts (265 charts) archived by Norwegian Hydrographic Service have been made available through Wikipedia by Norwegian Hydrographic Service: https://no.wikipedia.org/wiki/Liste_over_historiske_dokumenter_hos_Statens_kartverks_sj%C3%B8divisjon
- Time series of tidal measurements of 23 places along the Norwegian coast, dating back to early 20th ce



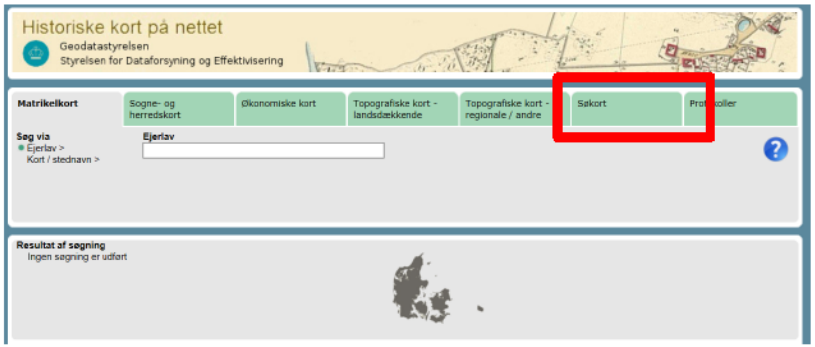
Tide calculating machine in use from 1947 to 1977, donated to and still operational at Stavanger Maritime Museum

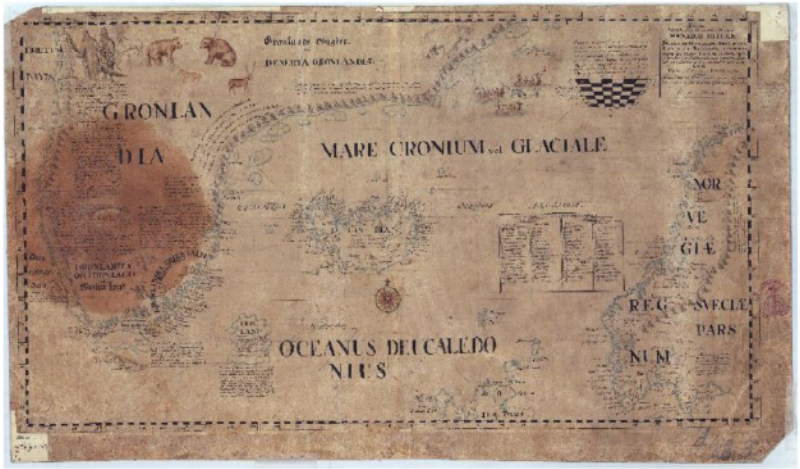
Kartverket

HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

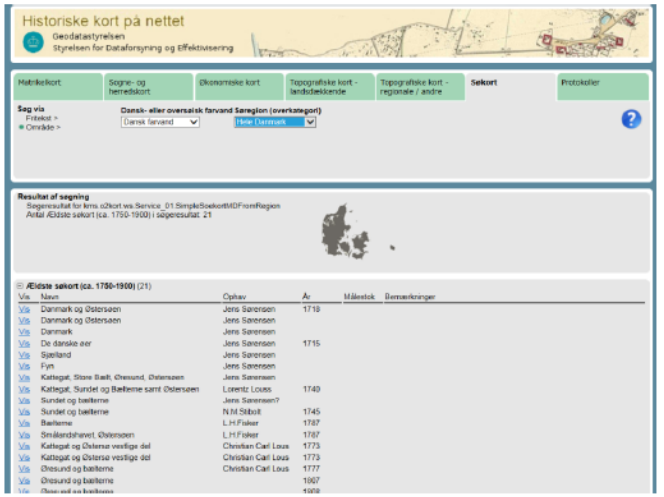
Historical Charts in Denmark



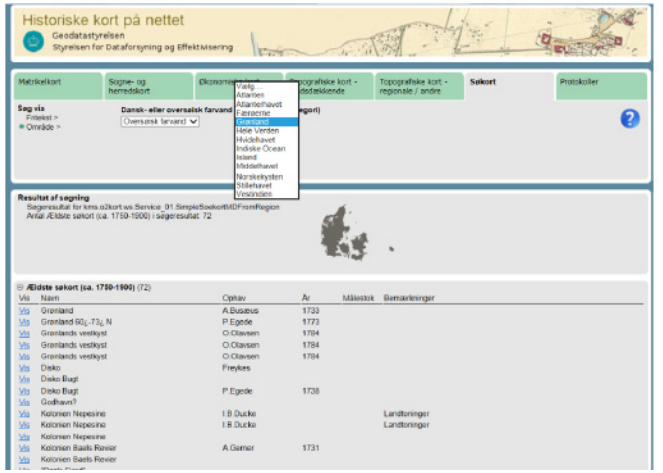


Danish Geodata Agency

Navigational charts for Danish Waters



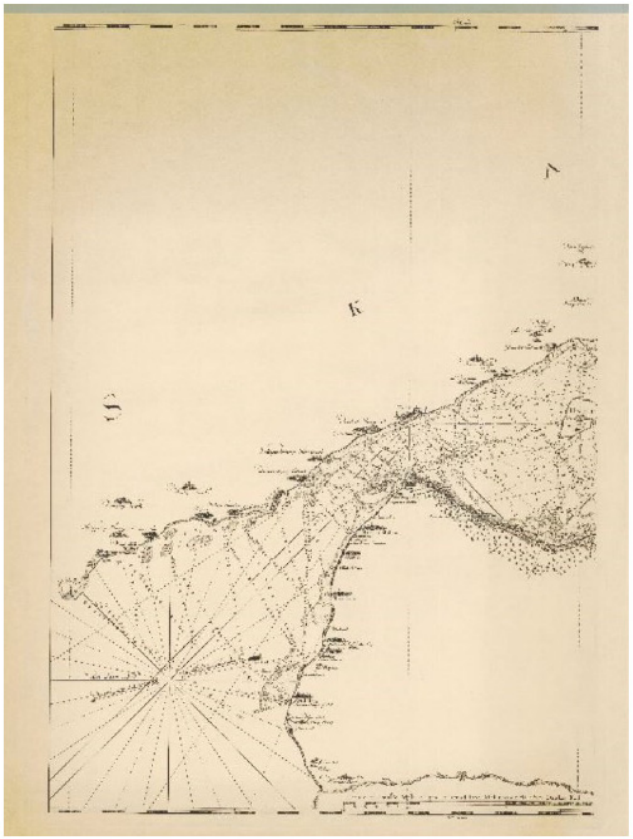
Navigational charts for Waters outside Denmark



HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

Fra Kronborg (Sound) til Stevns 1775



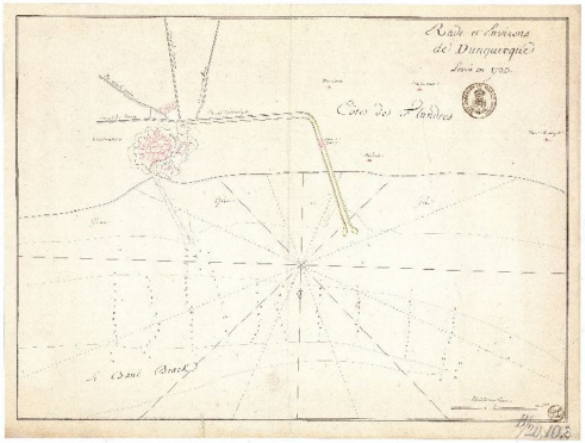
Fra Kronborg (Sound) til Stevns 1832

Danish Geodata Agency

HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

Dunquerque1690



Morlaix C.C.Cornic 1794

Cherbourg 1784

Danish Geodata Agency

HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

HISTORICAL DATA-DATA RESCUE

OUR MEMORY FOR THE FUTURE GENERATIONS

SHOM archives, an impressive cartographic heritage

The SHOM archives departments contain more than 200 000 paper documents, some of the oldest ones dating from the early 1800s.

Due to their high technical standards these documents are crucial for a better understanding of the coastal changes over the past two centuries concerning: coast line, sea beds, mean sea level, tide gauge observations, marine submersion (observation of storm surges)…

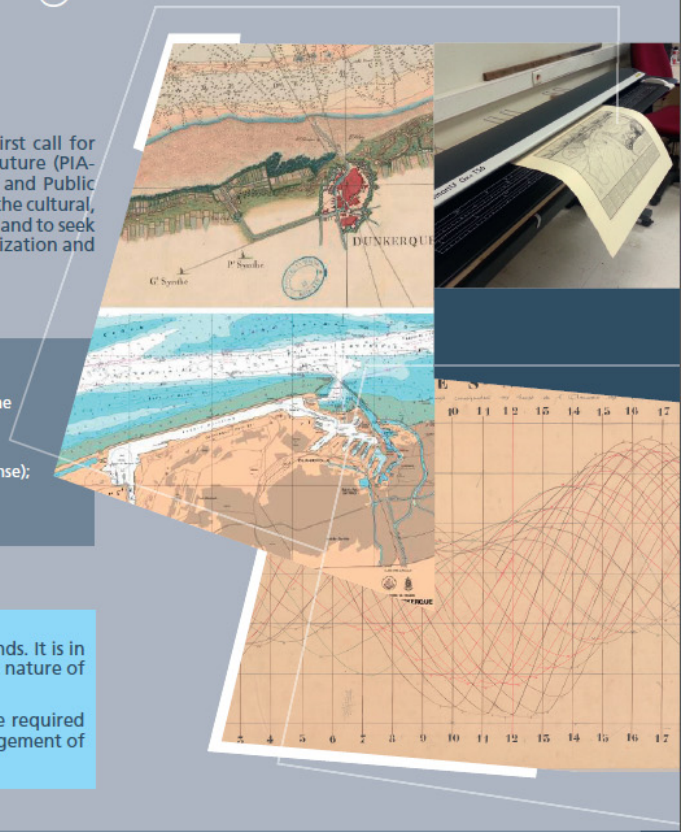
The Archipel SHOM project got budget in the first call for tenders of the Projects of Investments for the Future (PIA-Fund "Helping Public Sector Digital Switch Over and Public Action Modernization"). Its purpose is to illustrate the cultural, scientific and economic potential of SHOM archives and to seek sponsored funding in order to continue their digitization and putting on line process.

About 200 000 paper documents including:

- 75 000 manuscript maps (bathymetry and coastal topography);
- 10 000 old nautical charts;
- 45 000 tide gauge charts / marigrams;
- 10 000 aerial photographs;
- 10 000 books;
- 50 000 pages of tidal observation registers.

Expected project benefits:

- Cataloguing older data that are essential to get a better understanding of climate change and coastline evolution;
- Giving open access to, and use of, such data for reproduction, exploitation purposes (open-data license);
- Sharing and disseminating achieved results;
- Preserving high historical value documents.



SHOM commits to reviewing and describing the physical marine environment and to predicting its evolutionary trends. It is in charge of establishing the Reference Databases describing the seabeds depth, the sea level, the marine currents, the nature of the sea floors, the position of the marine wrecks…

Such SHOM collected data and expertise are currently used to realize the marine maps and nautical charts that are required for safety of navigation purpose as well as for numerous, other purposes: prevention of coastline submersion, management of human sea uses, marine environment protection, or maritime spatial planning…