NOOS annual report 2019   Member report – the Netherlands

Country	The Netherlands
Institution	Rijkswaterstaat, Deltares, KNMI
Observations Status and new initiatives	*Status:* • Total reorganization of measuring network software is still in preparation; • Development of data exchange protocols RWS and Waterboards. *New initiatives:* • The antennas on the Wadden Sea waverider buoys have temperature and evaporation sensors to measure air temperature • Deltares works on wave run up observations based on video images in combination with A.I. (https://www.youtube.com/watch?v=5U94j1juRv4&t=84s)
Modelling Status and new initiatives	*Status:* • Our MetOffice KNMI uses new weather model Harmonie operationally now. We are still checking results on our water and wave models before changing from HIRLAM to this model for operational forecasting. • BMA new script operational and extended with 13 new locations and 3 percentiles (5, 25, 50, 75 and 95%). Results available in https://noos.matroos.rws.nl source name BMA2. *New initiatives:* • Working on 'next generation' models (DFLOW-FM) for the DCSM and ZUNO domains with unstructured grids. • Start with a 3D model of Rotterdam Approach and Harbor for navigation and salt intrusion is under negotiation. • Fine grid SWAN wave model for Dutch Coast and Wadden Sea
Dissemination	*Status:* • NOOS-matroos now changed to httpS

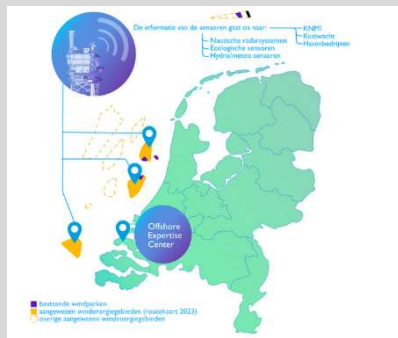|	
Status and new initiatives	*New initiatives:* • Webservices for timeseries, graphs and griddata (WMS) in development.
Relevant national projects	• FAST4NL - adjustments to Global Tide and Surge Model and adding fast wave estimates. • MOSAIC - For quickly setting up small scale models for flood forecasting • CHASM Coupled High-resolution Atmosphere Sea Modelling to improve numerical modelling of metocean conditions at offshore wind farms.
Relevant International projects	• EMODnet hrsm: Computation of LAT for Europe and other reference planes for conversion of the different bathymetry data sources to a common vertical reference plane, using the Global Tide and Surge Model. • CODEC (Coastal Dataset for Evaluation of Climate impact) • CMIP6 (Coupled Model Intercomparison Project) • JERICO Next (H2020): HF radar; process phytoplankton observation data • ODYSSEA (EU H2020) coastal water quality forecasting systems with use of remote sensing. • HISEA (EU H2020) Coastal models and remote sensing for ports and aquaculture sectors • CoastServe (CMEMS) CMEMS products in combination with other data sources for coasts • UNITED (H2020) multi-Use platforms and co-locatioN pilots boostIng cost-effecTive Eco-friendly and sustainable proDuction in marine environments • FORCOAST (H2020) coastal water services for fisheries, oyster restoration and aquaculture. •
Additional information	• RWS is involved in observation instrumentation on wind parks, for 3 locations. Parameters will arrive next year. Even bat-sound are available. more info: https://www.informatiehuismarien.nl/publish/pages/162283/dob-rws_mivsp_animatie-r04_compressed.mp4 Lot of our and NOOS information: https://noos.matroos.rws.nl