

# *SatBałtyk System-* modern tool for monitoring and research of the Baltic Sea

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Polish Academy of Sciences**



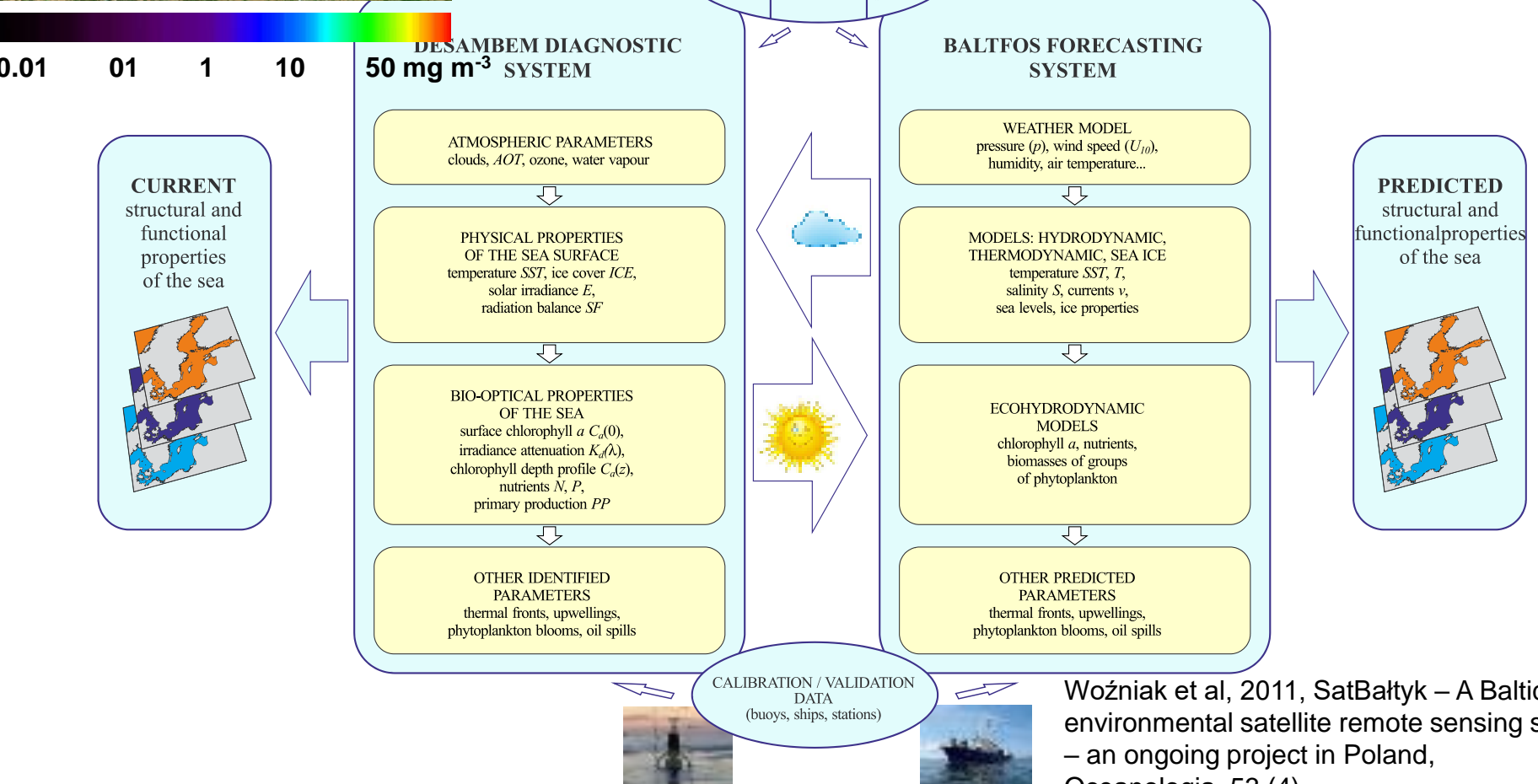
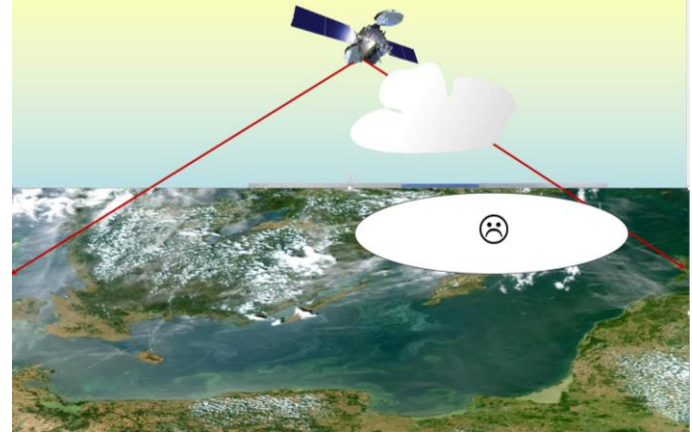
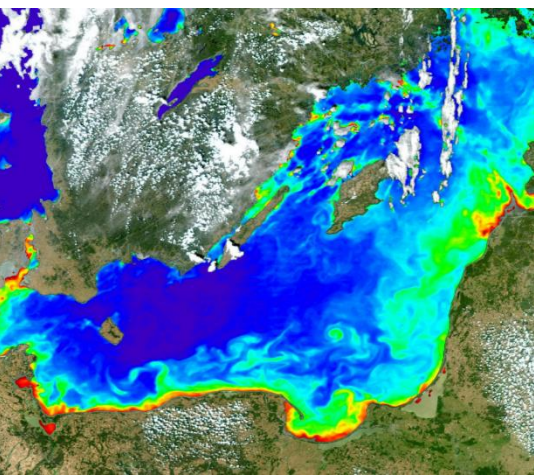
## **Scientific Consortium SatBałtyk:**

- Institute of Oceanology Polish Academy of Sciences
- Institute of Oceanography at the University of Gdańsk
- Institute of Physics at the Pomeranian Academy in Słupsk
- Institute of Marine Sciences at the University of Szczecin

*Satellite Monitoring of the Baltic Sea Environment – SatBałtyk* founded by European Union through European Regional Development Fund (POIG 01.01.02-22-011/09)



# Computing Centre SatBałtyk System



Woźniak et al, 2011, SatBałtyk – A Baltic environmental satellite remote sensing system – an ongoing project in Poland, Oceanologia, 53 (4)



**INNOVATIVE ECONOMY**  
NATIONAL COHESION STRATEGY

**EUROPEAN UNION**  
EUROPEAN REGIONAL DEVELOPMENT FUND

Partners

Select time [UTC]

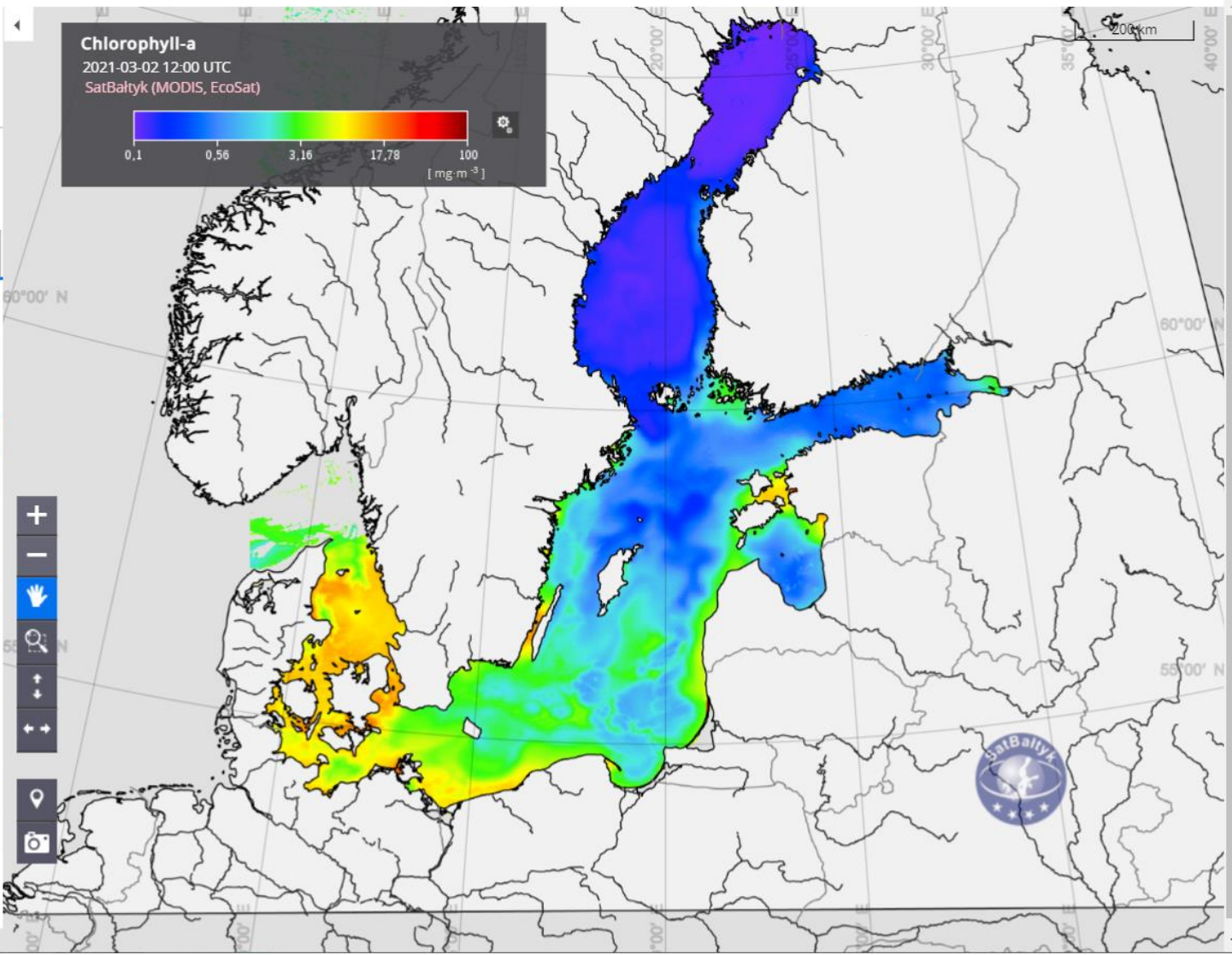
2021-03-02 12:00

Map navigation icons: Home, Refresh, Settings, Lock

- Sea surface temperature SST
- Cloudiness
- Shortwave solar radiation
- Chlorophyll-a**
- Primary production in the water column
- + ATMOSPHERE, METEOROLOGY
- + HYDROLOGY
- + OCEAN OPTICS
- + RADIATION BUDGET
- + SEA WATER COMPONENTS
- + PHYTOPLANKTON, PHOTOSYNTHESIS
- + COASTAL ZONE
- + HAZARDS

**Chlorophyll-a**  
2021-03-02 12:00 UTC  
SatBałtyk (MODIS, EcoSat)

0.1 0.56 3.16 17.78 100 [mg·m<sup>-3</sup>]

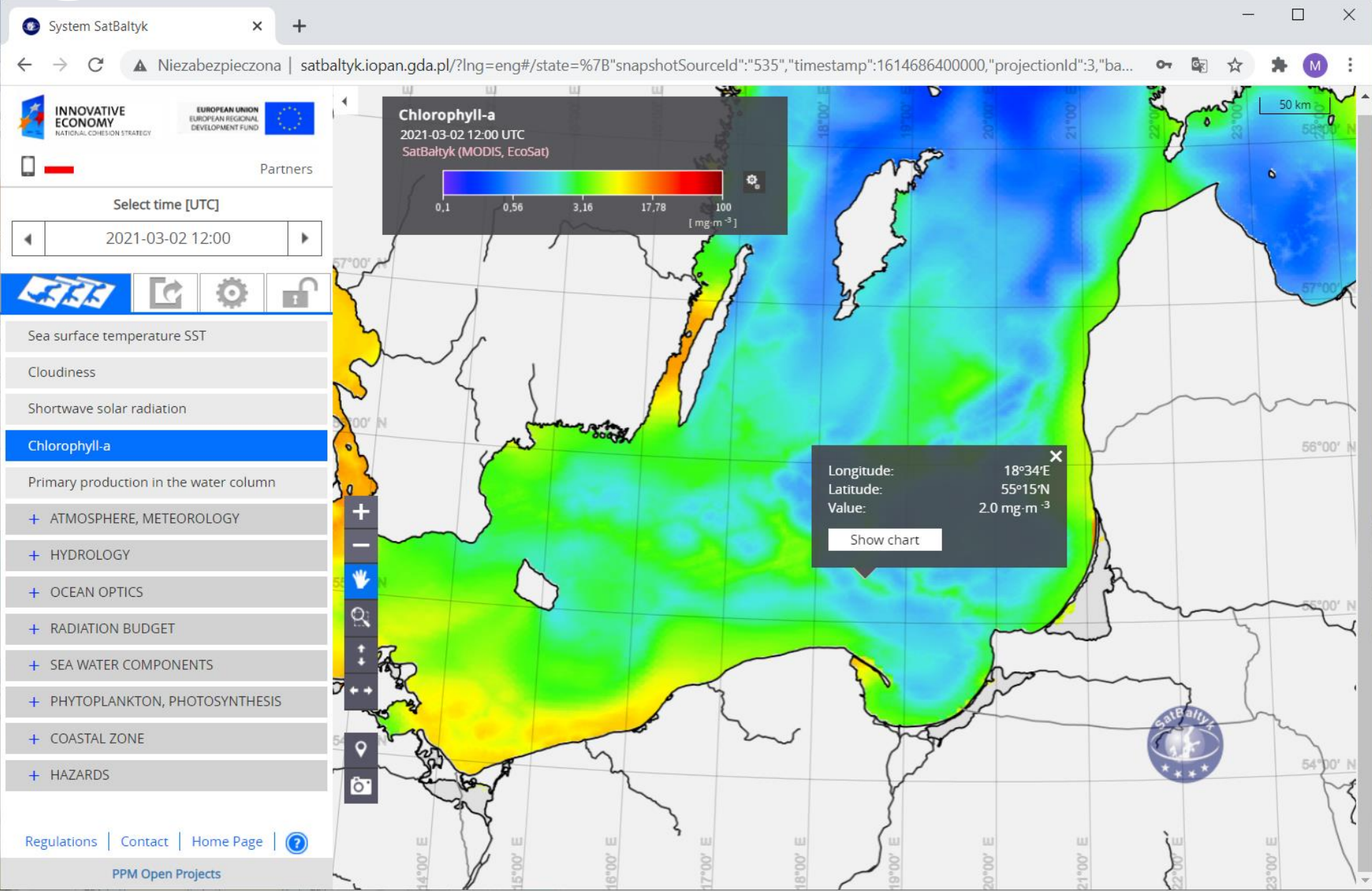


Map navigation controls: Zoom in (+), Zoom out (-), Home (house icon), Search (magnifying glass), Full screen (expand icon), Refresh (refresh icon), Settings (gear icon), Lock (lock icon)



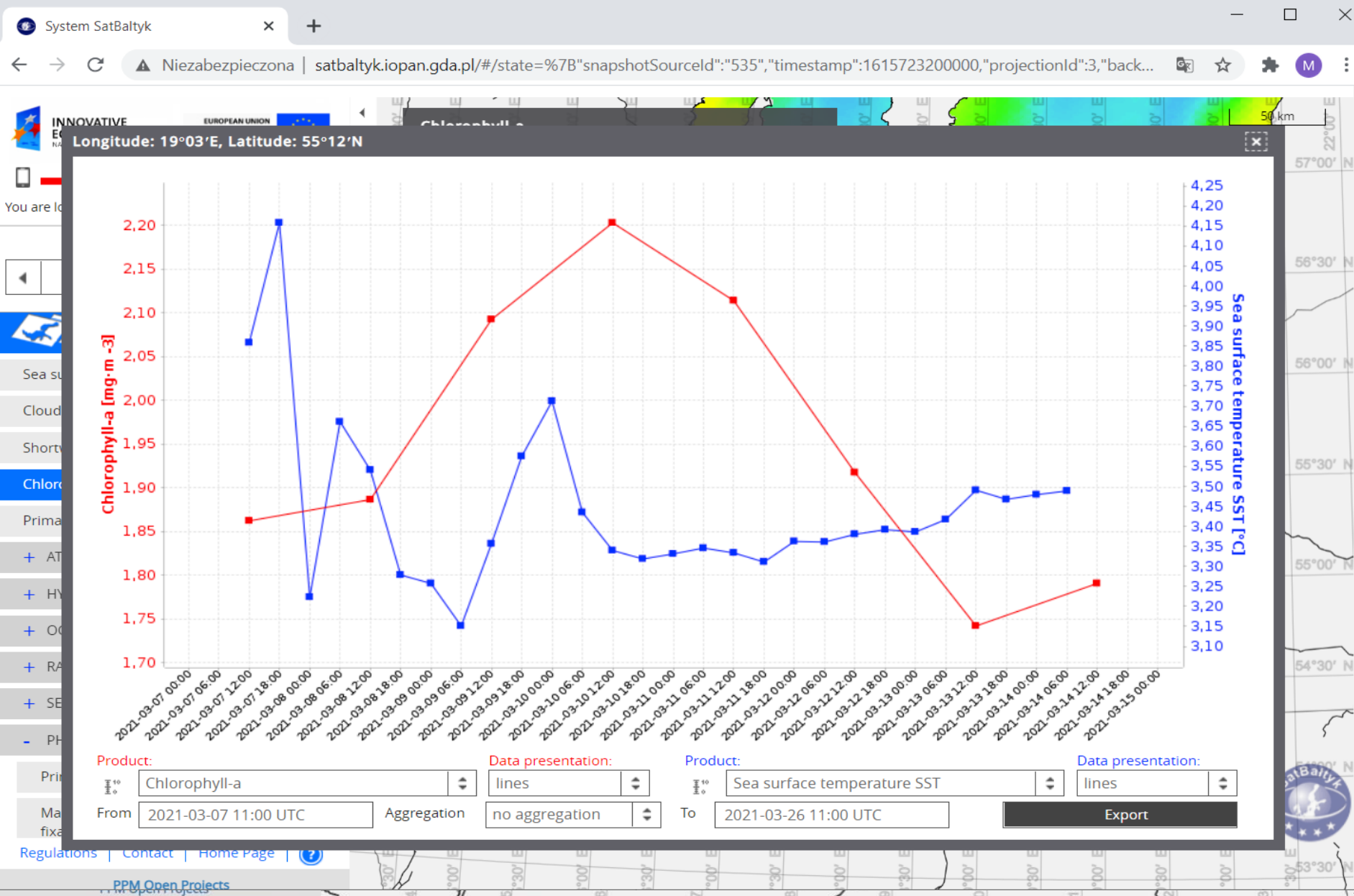


# Chlorophyll-a



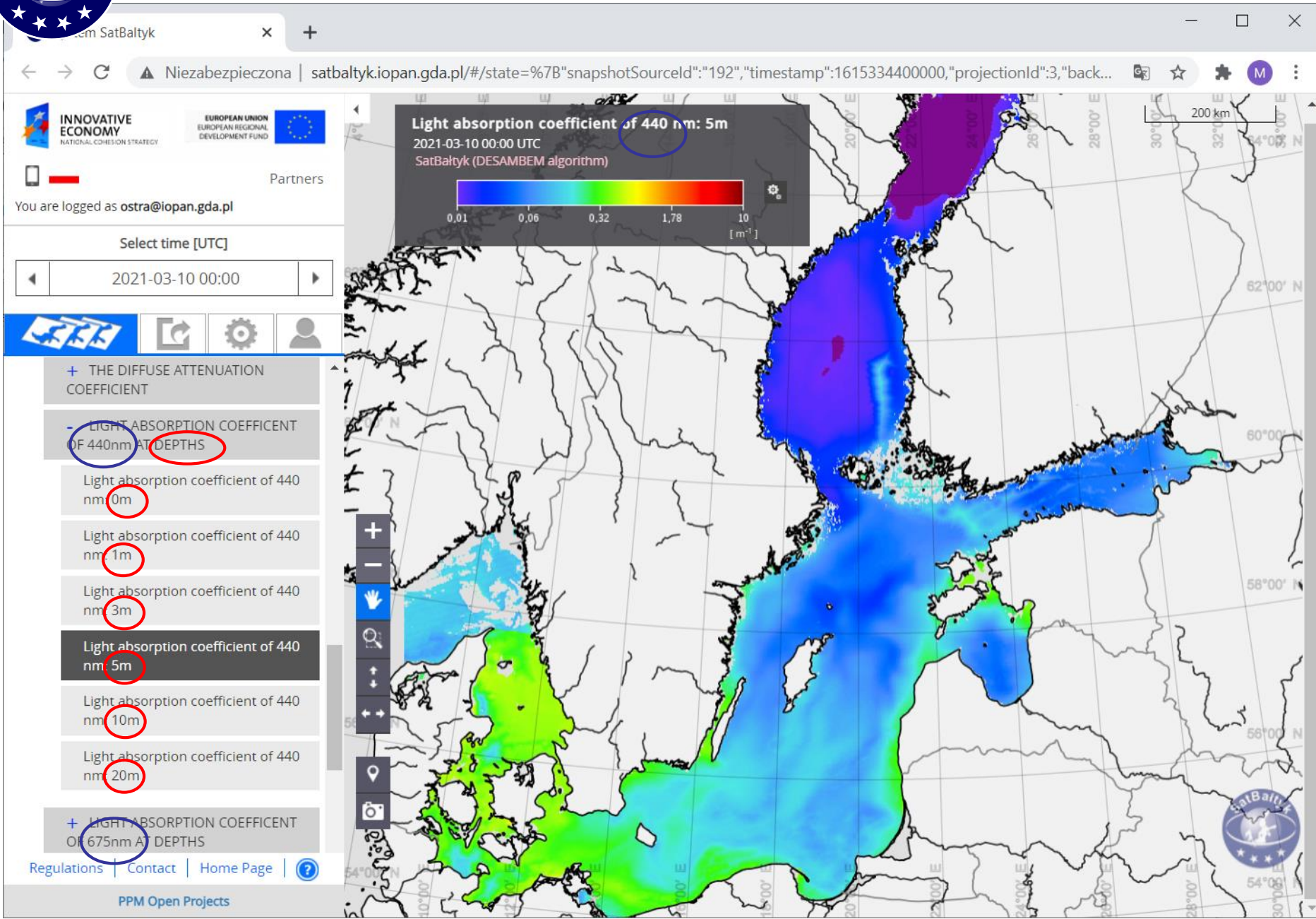


# Chlorophyll-a vs Sea Surface Temperature SST





# Light absorption coefficient of 400nm, 5m



important themes in contemporary marine science:

1. The influx and distribution of the solar radiation energy consumed during various processes in the atmosphere-sea system.
2. The radiation balance of the sea surface.
3. The optical conditions in which photosynthesis of organic matter takes place and the condition of marine plant communities.
4. Distributions of sea surface temperature (SST) and the links between this temperature and various phenomena occurring in the sea.
5. Hazards and effects due to storm states in the coastal zone of the sea.



**Phenomena**

**and**

**Processes**