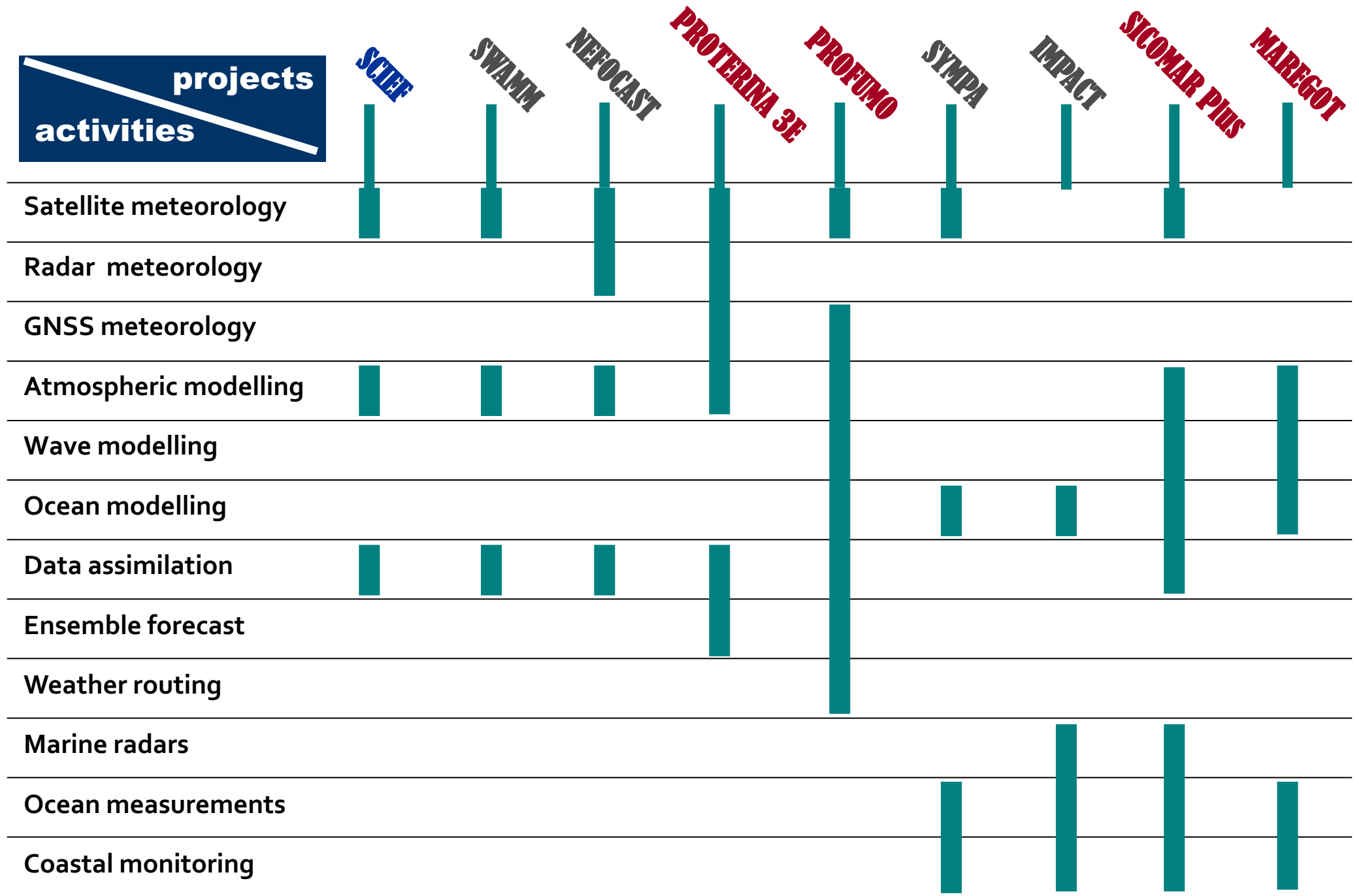




# main current projects

**Included:** only projects based on funds from tenders by public institutions, CNR projects developed within LaMMA

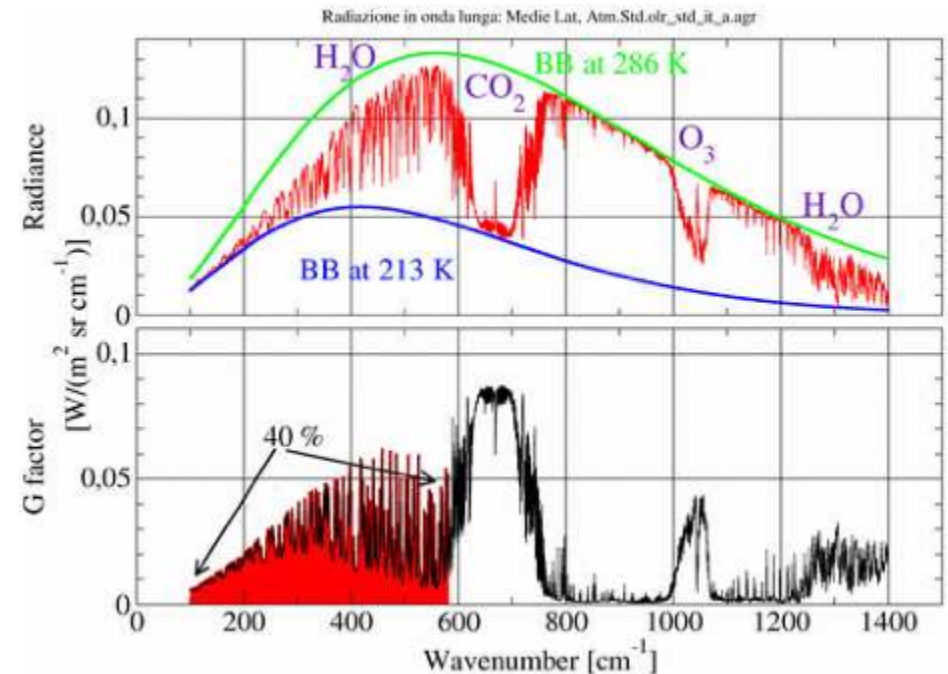
**Excluded:** internal projects, in-house projects, services for private companies





**Objective:** supporting the development of the FORUM mission selected at the final stage of the ESA EE-9 (Earth Explorer 9) call.

FORUM: Far-infrared-Outgoing-Radiation Understanding and Monitoring. 



**projects**  
**activities**

**SCHE**

Satellite meteorology

Radar meteorology

GNSS meteorology

Atmospheric modelling

Wave modelling

Ocean modelling

Data assimilation

Ensemble forecast

Weather routing

Marine radars

Ocean measurements

Coastal monitoring

# SWAMM

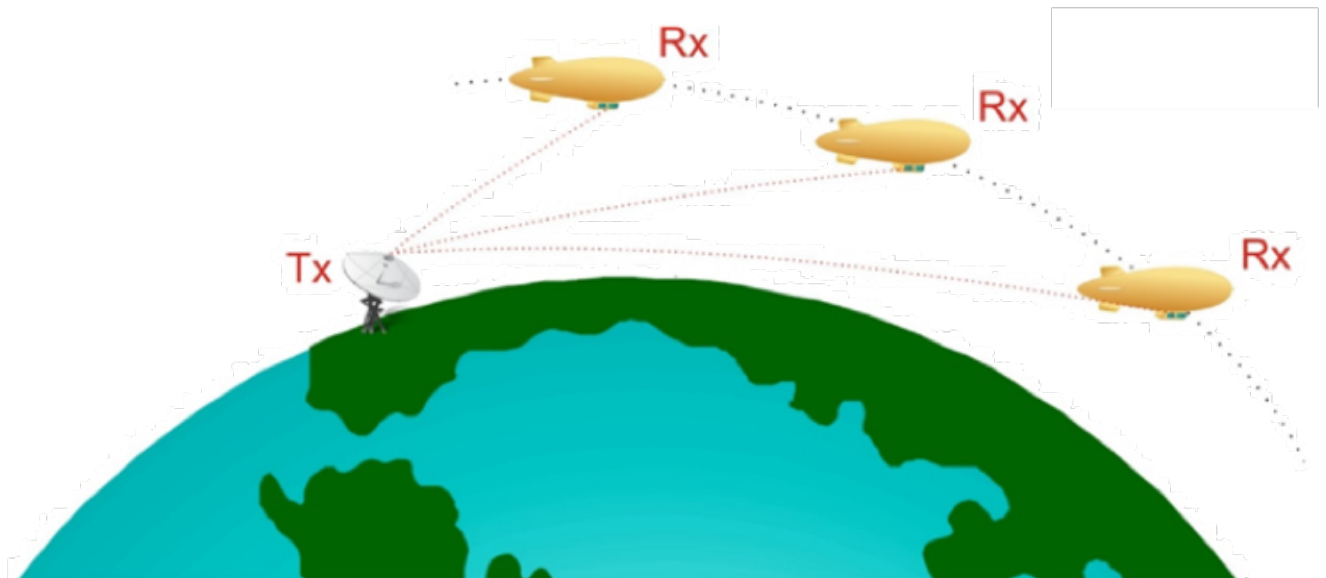


Regione Toscana



FAS  
Fondo Aree  
Sottoutilizzate  
2007-2013

**Objective:** Sounding Water Vapour by Attenuation Microwave Measurements by means of a new instrument concept capable to operate from ground and/or aerospace platforms, that quantifies the water vapour content through a remote measurement (differential measurements of signals at two frequencies in the range 18-2-19.2 GHz)



**projects**  
**activities**

**SCIEE**

**SWAMM**

Satellite meteorology



Radar meteorology

GNSS meteorology

Atmospheric modelling



Wave modelling

Ocean modelling

Data assimilation



Ensemble forecast

Weather routing

Marine radars

Ocean measurements

Coastal monitoring

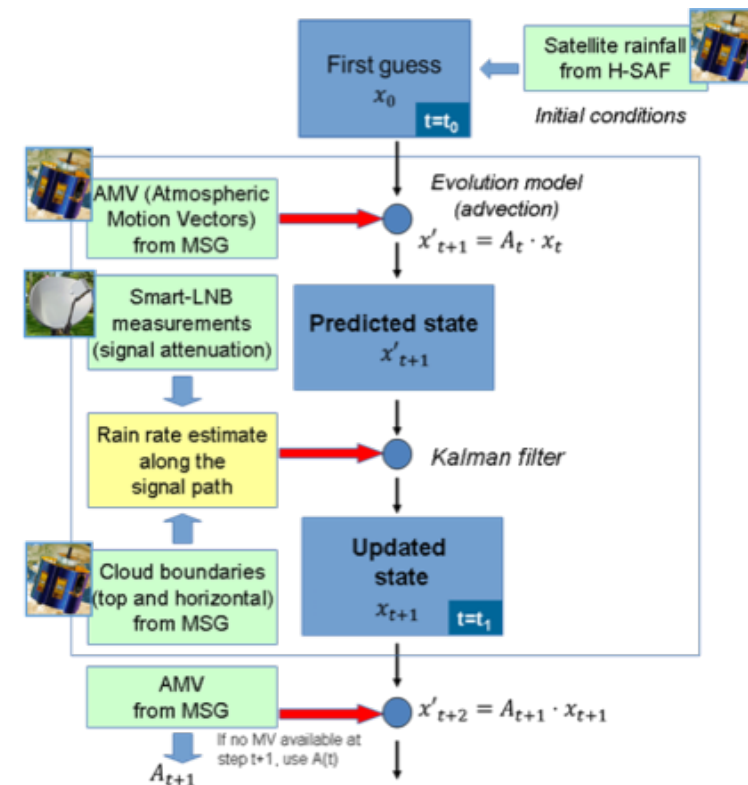
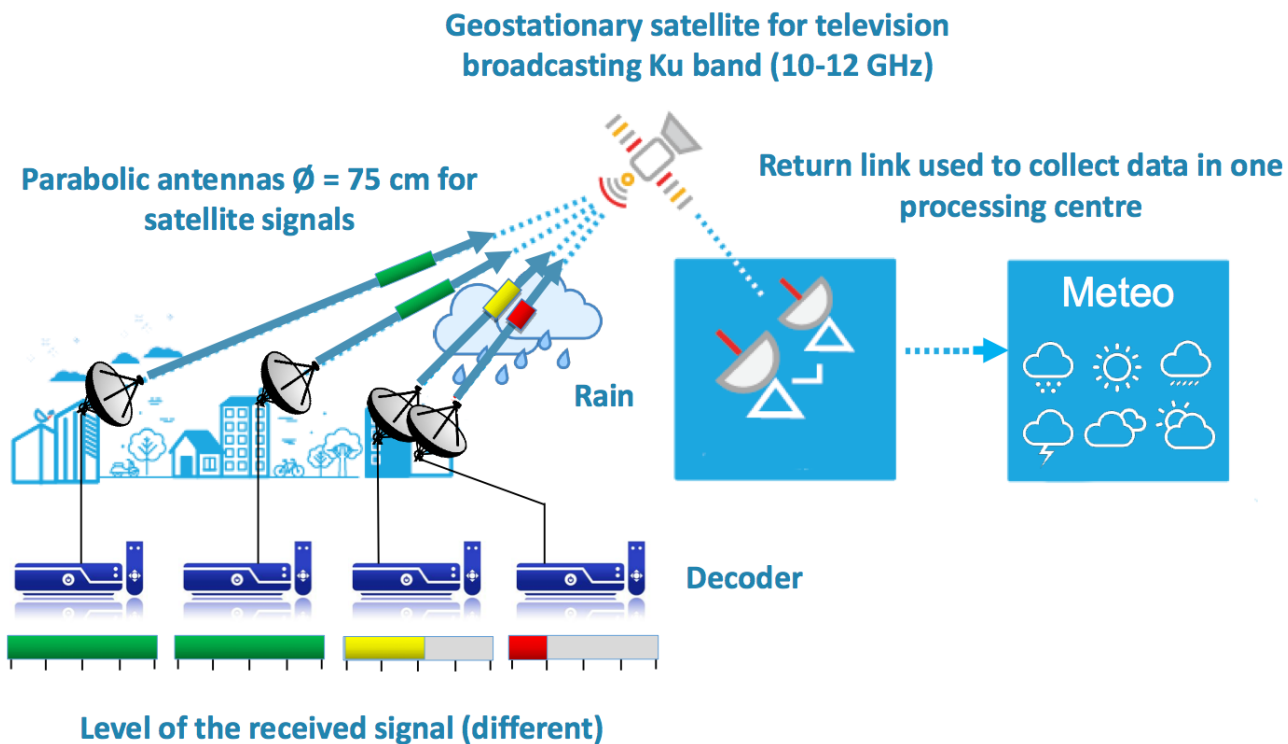
# NEFOCAST



Regione Toscana



**Objective:** Measuring precipitation from the attenuation of satellite communication signals using two-ways decoders (Smart LNB).



**projects**  
**activities**

**SCIEE**

**SWAMM**

**NEFOCAST**

Satellite meteorology



Radar meteorology

GNSS meteorology

Atmospheric modelling



Wave modelling

Ocean modelling

Data assimilation



Ensemble forecast

Weather routing

Marine radars

Ocean measurements

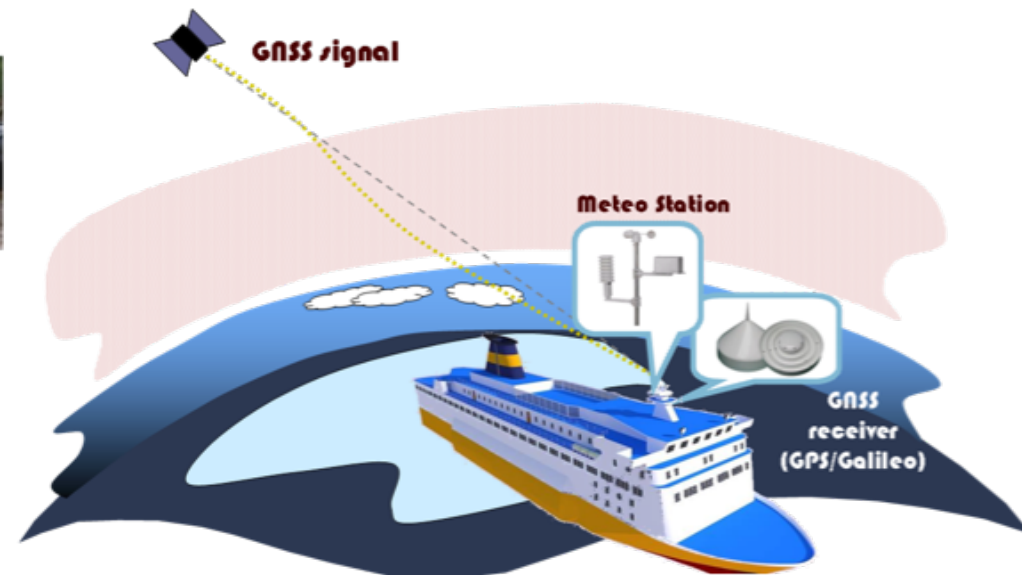
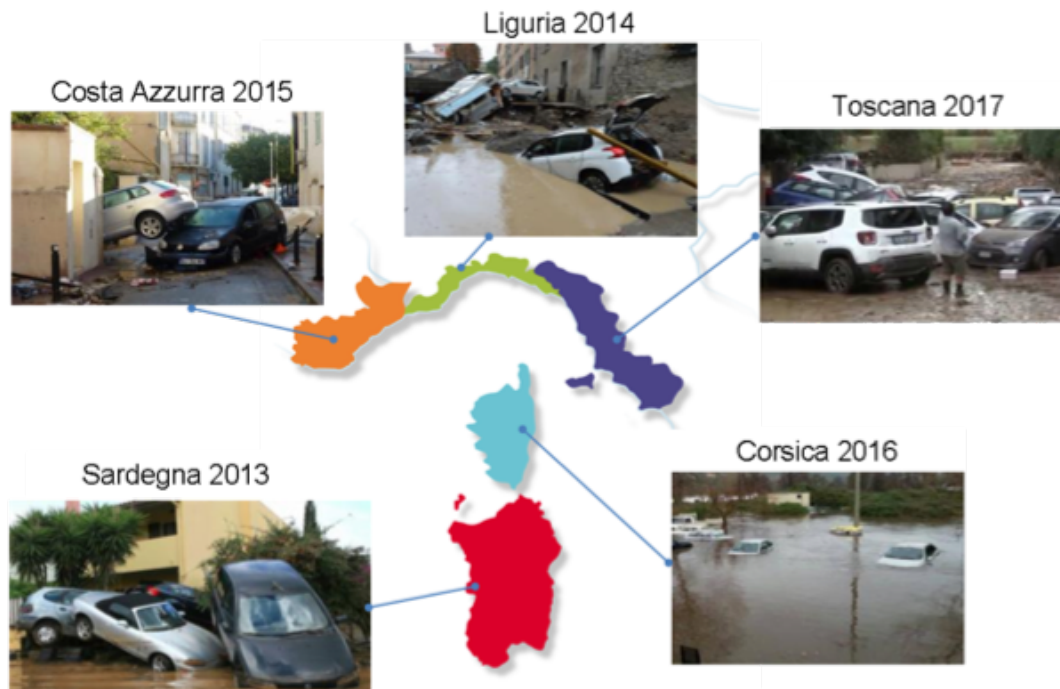
Coastal monitoring



# PROTERINA 3 Evolution



**Objective:** upgrading the forecasting and management capabilities of coastal extreme events and their ground effects.



projects  
activities

SCIEE

SWAMM

NEFOCAST

PROTERINA 3E

Satellite meteorology

Radar meteorology

GNSS meteorology

Atmospheric modelling

Wave modelling

Ocean modelling

Data assimilation

Ensemble forecast

Weather routing

Marine radars

Ocean measurements

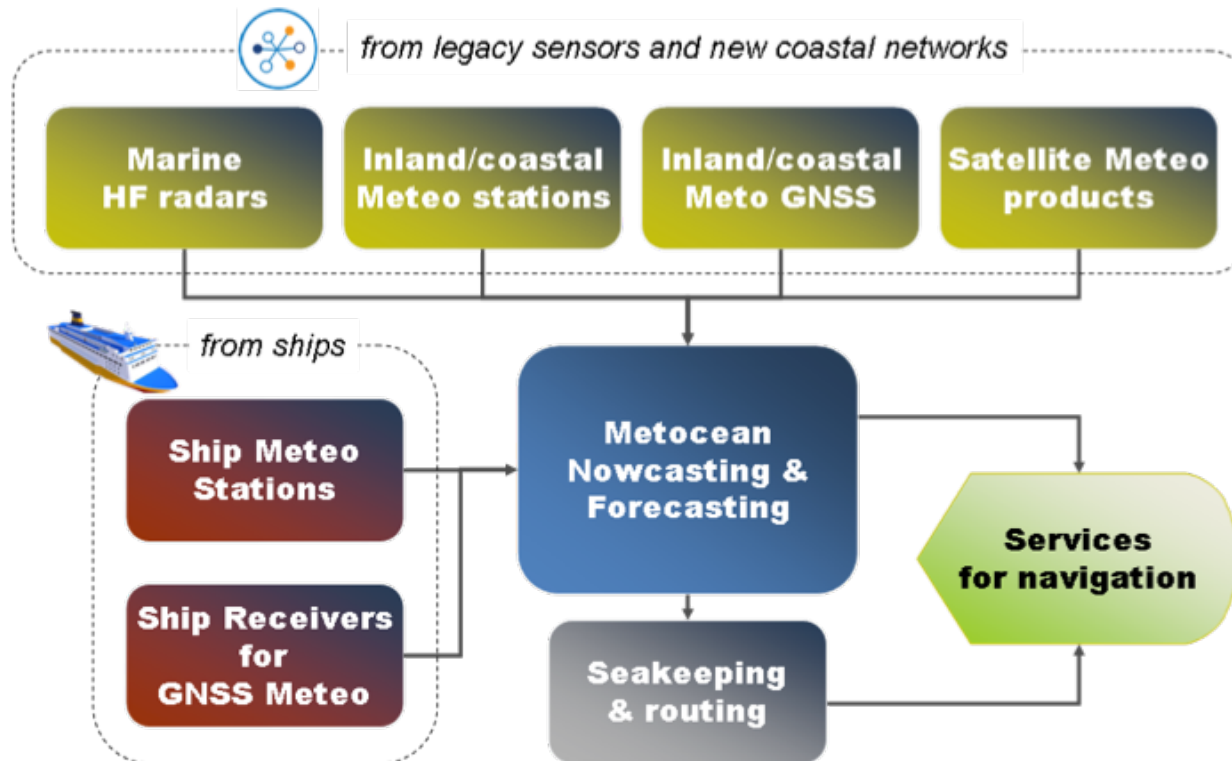
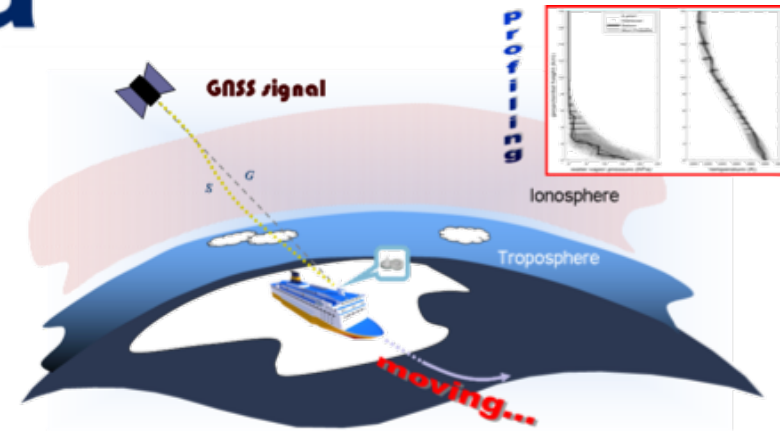
Coastal monitoring

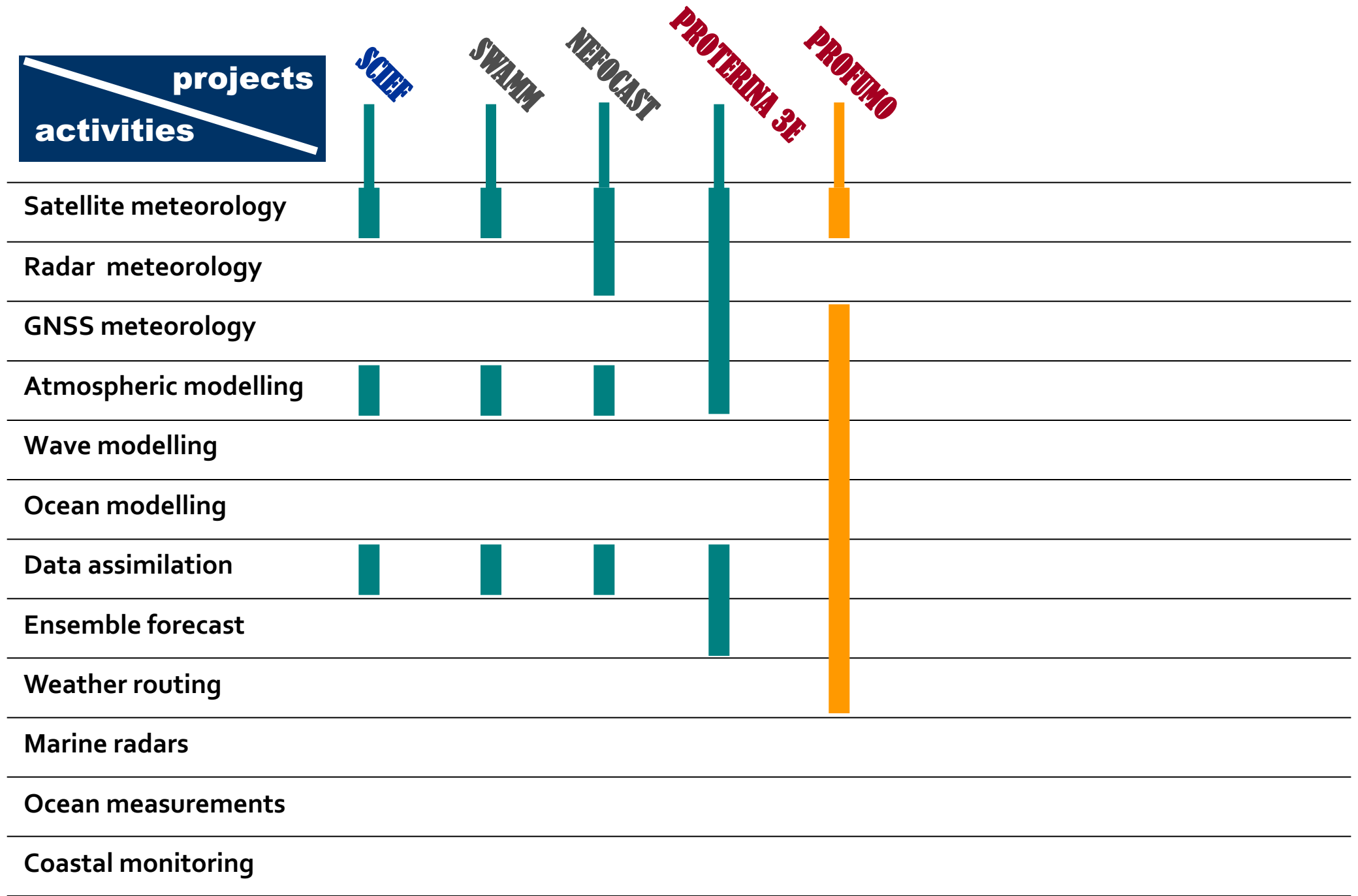


# PROFUMO

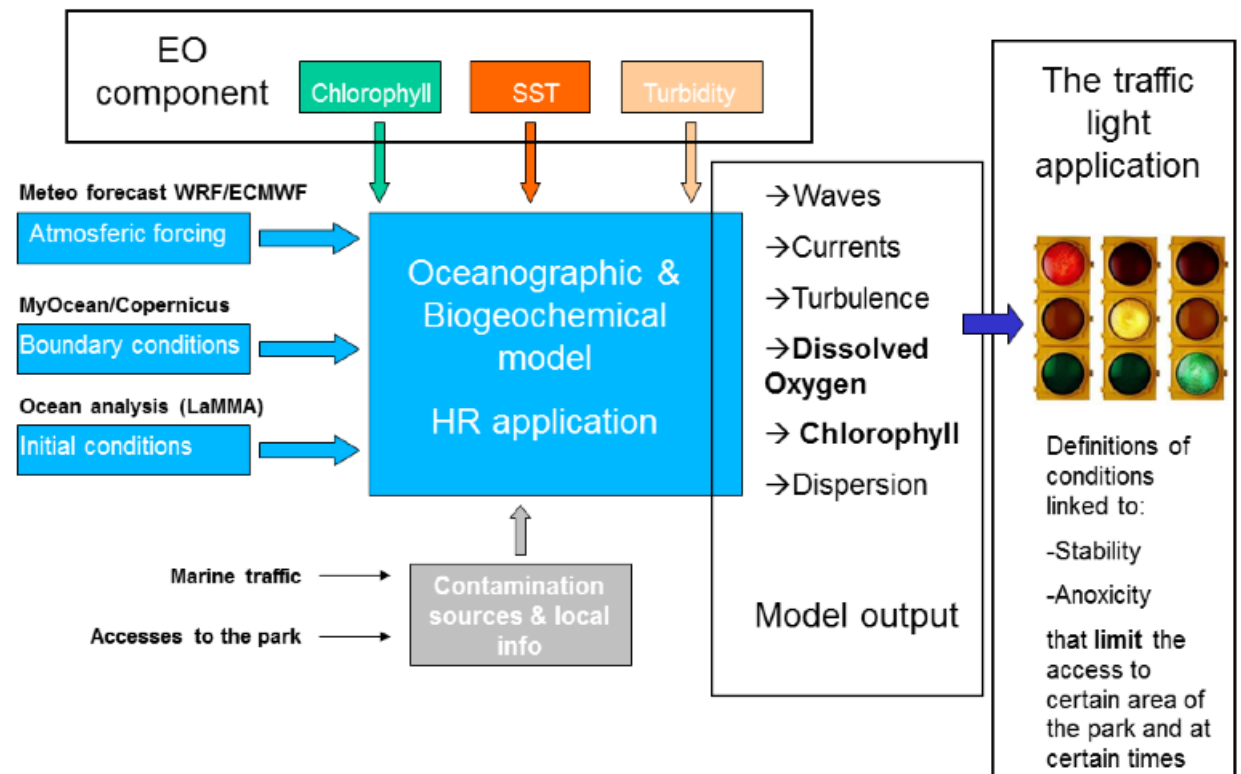


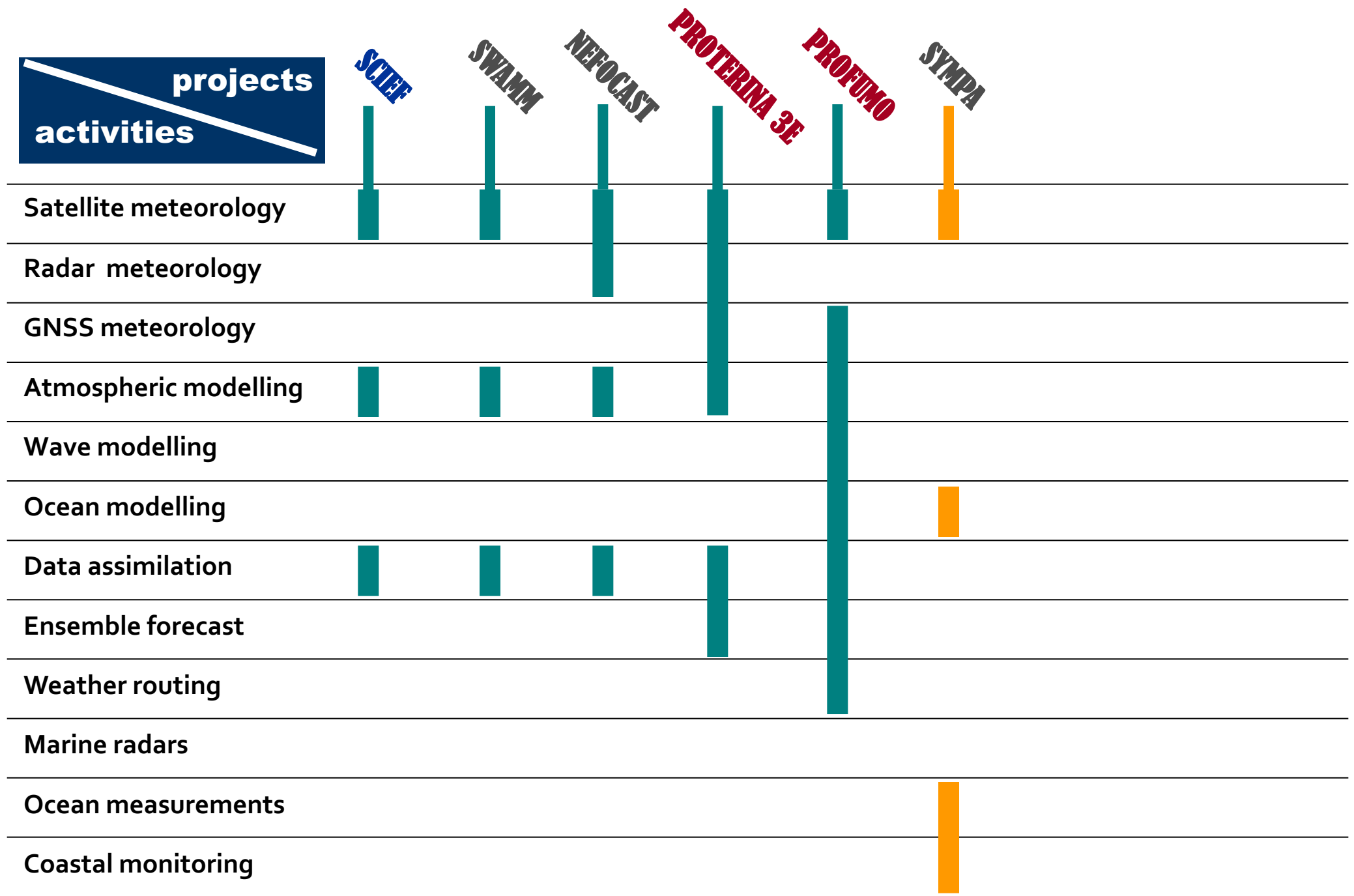
**Objective:** developing weather-based operational services for reducing fuel consumption and risks in maritime transport.





**Objective:** creating services for MPA (Marine Protected Area) management and sustainable exploitation.

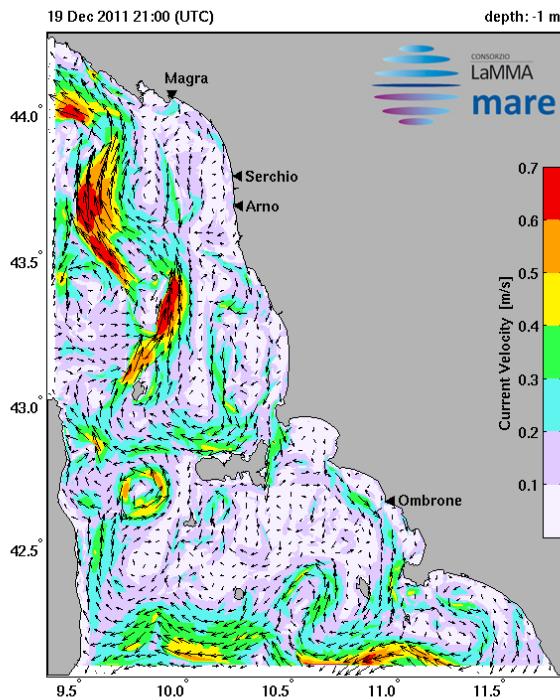


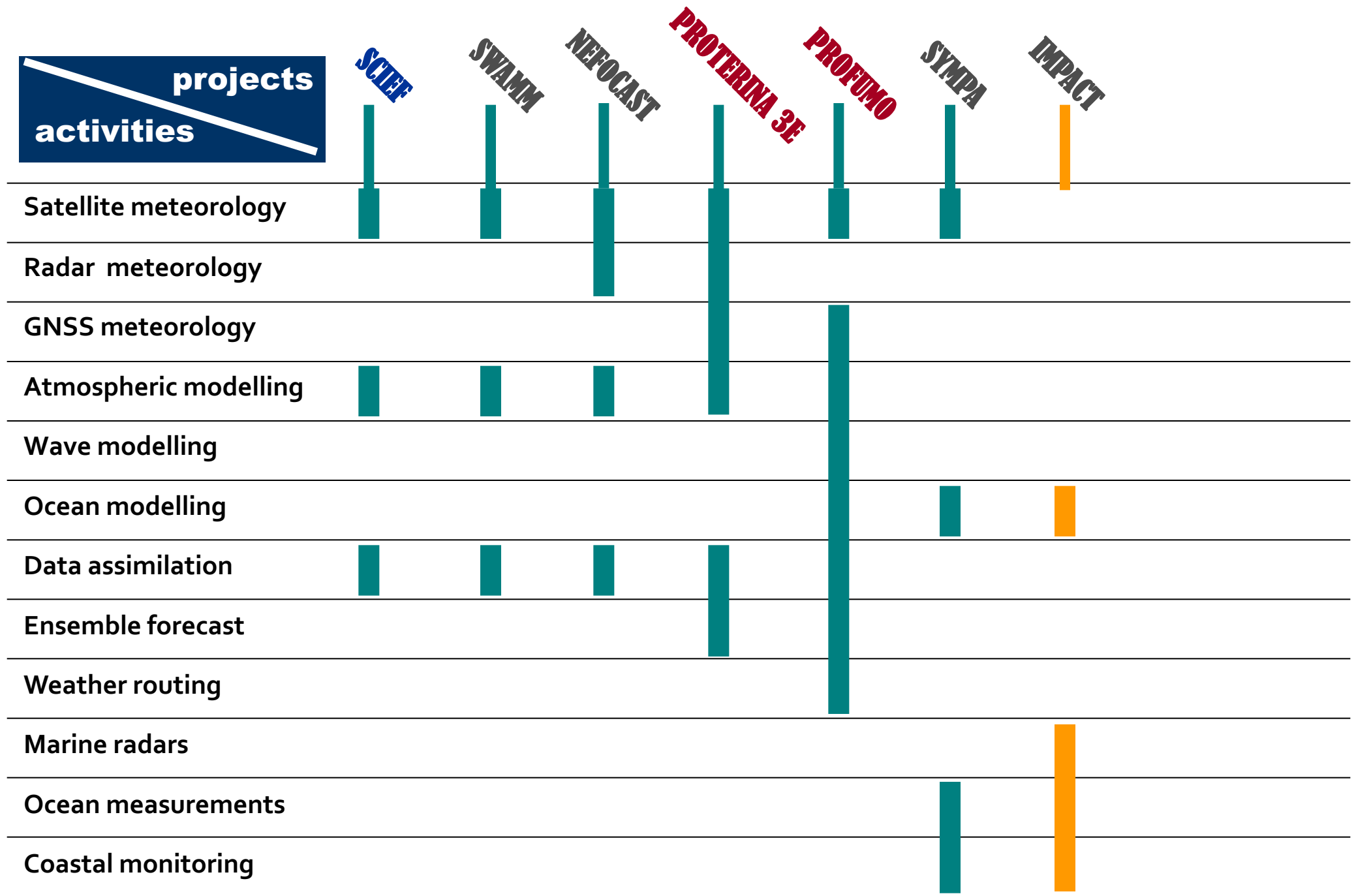


# IMPACT



**Objective:** analysis of interaction between Ports and Marine Protected Area (MPA) through sampling biological species, laboratory analyses, current measurements using HF radars, oceanographic modelling.



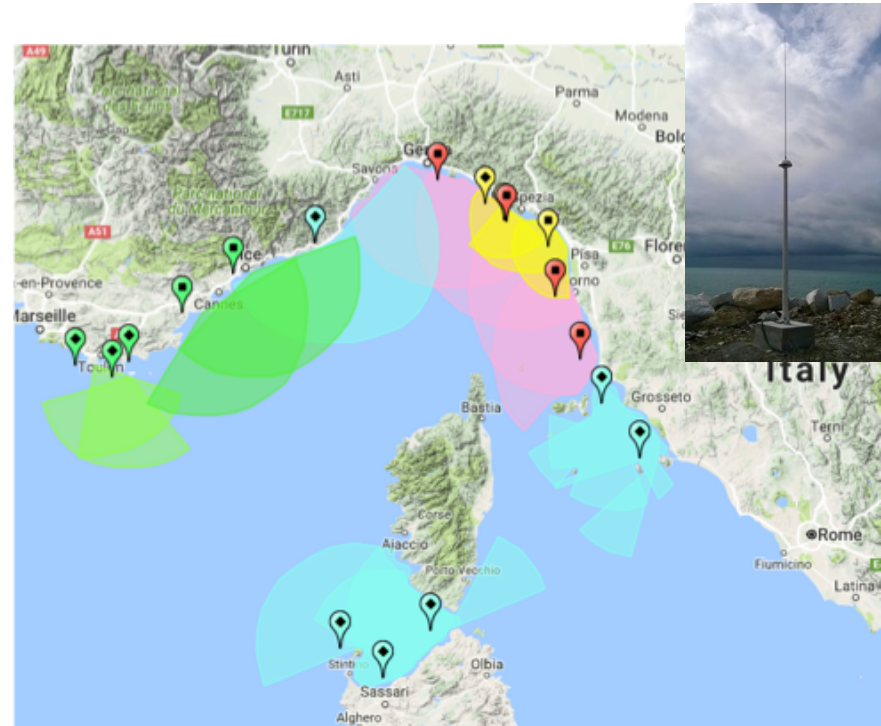
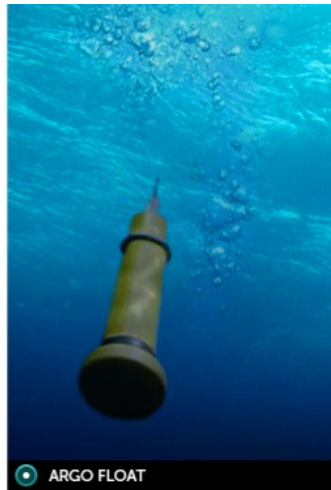
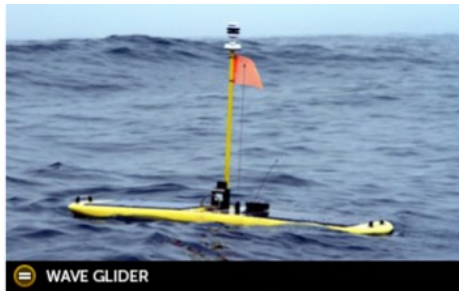


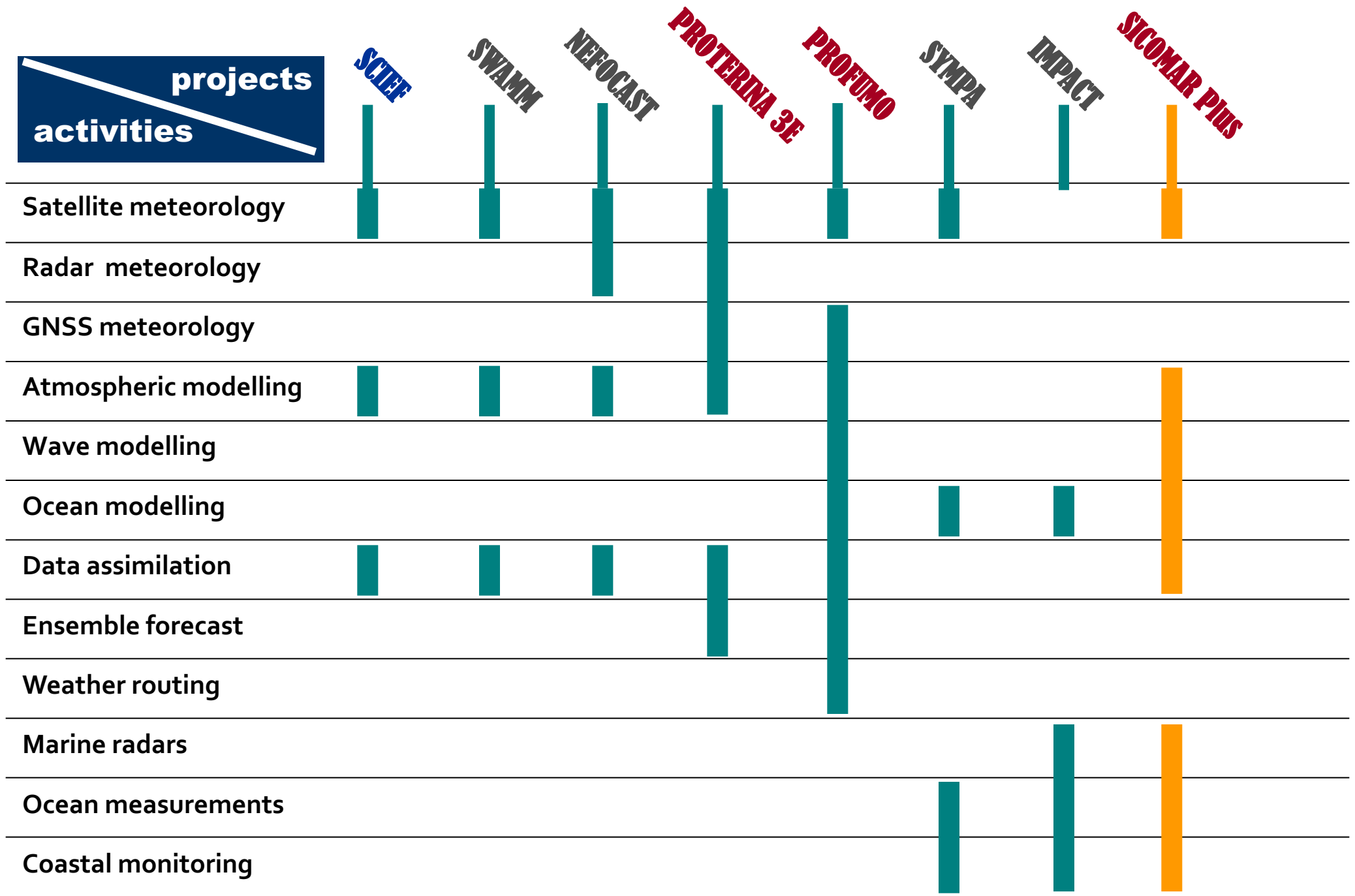


# SICOMAR Plus



**Objective:** Development of new services for safety in maritime transport through the set up of trans-boundary measurement networks (for the nord-west Mediterranean Sea) and of precise modelling for the sea state.





# MAREGOT



**Objective:** management of risks associated with coastal erosion and coastal impacts of the climate change, through the development of forecasting models for short-term coastal risks (storm risk, coastal flooding, rip currents) and models for the management of coastal erosion (long-term morphodynamic modelling, coastal climatology, sea level rise effects).

