



MORA project

Project description for user groups

Model interfaced radar for improved operation and control (MORA)

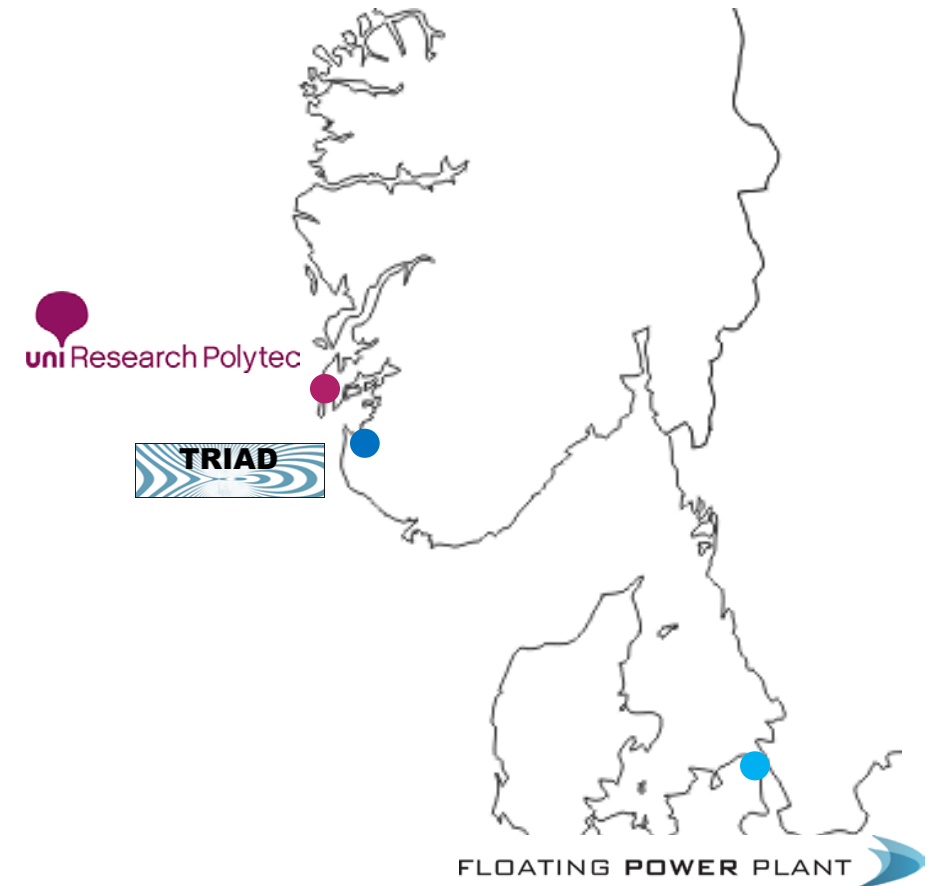


Overall goals of project

1. **Increase the revenue** of wave energy and offshore wind.
2. **Reduce risk** and operational expenditure in all sea state limited offshore operations.

Project period: October 1st 2017 – September 31st 2019

More information: www.morapro.eu



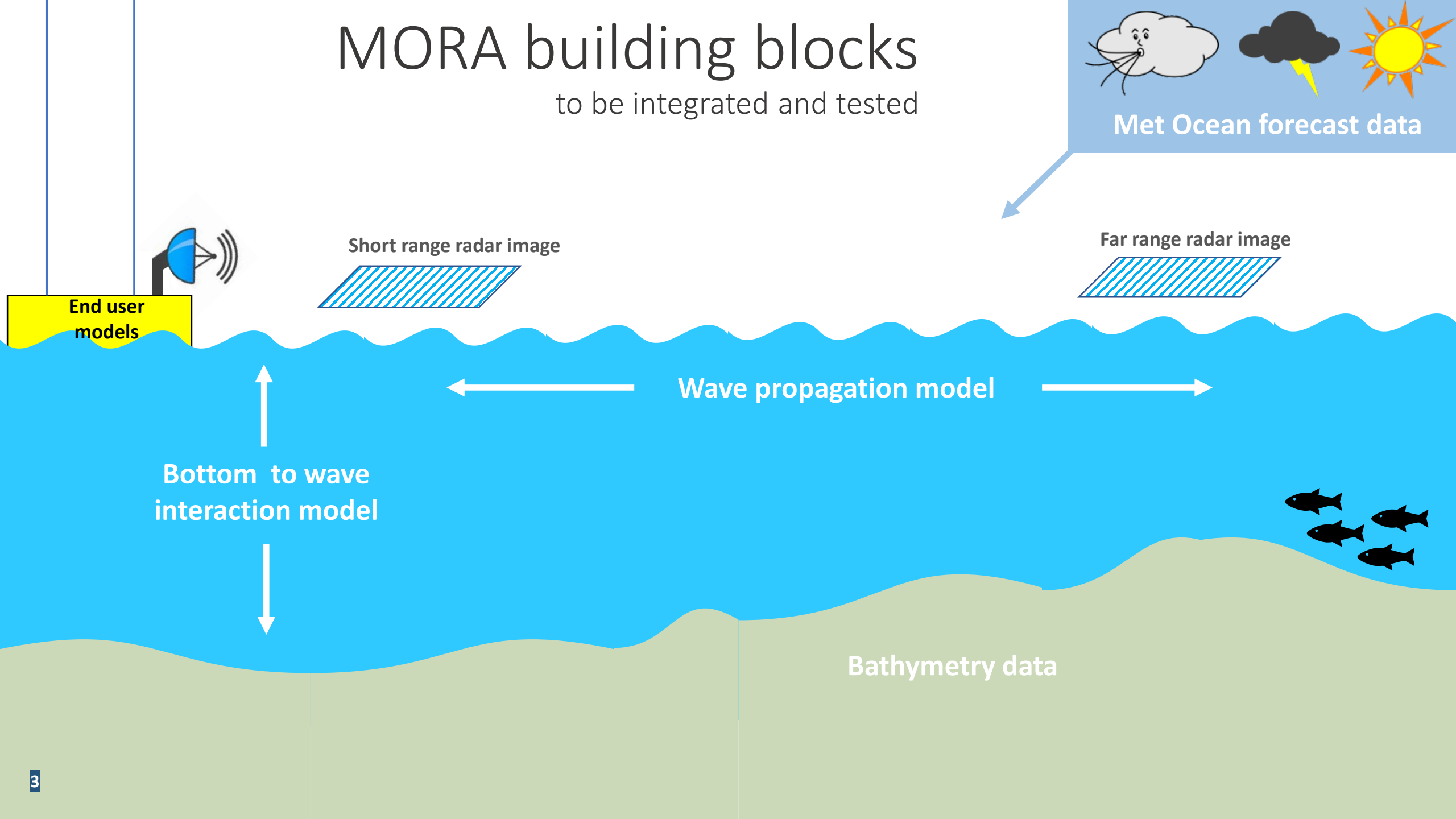
This project has received funding from the Eurostars-2 joint programme with co-funding from the European Union Horizon 2020 research and innovation programme

MORA building blocks

to be integrated and tested



Met Ocean forecast data



End user models

Short range radar image

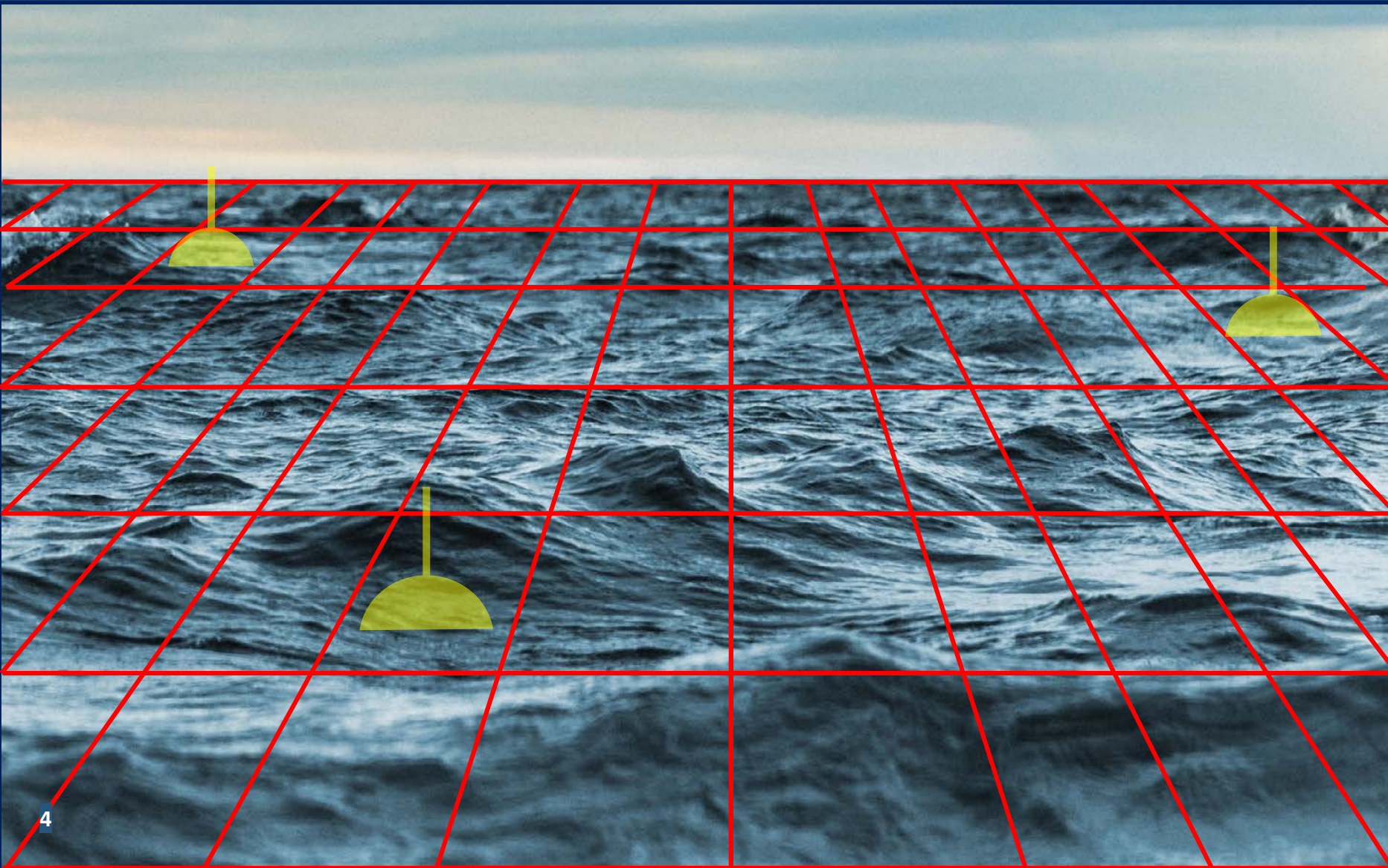
Far range radar image

Wave propagation model

Bottom to wave interaction model

Bathymetry data

Realisation example **Virtual Waverider**



“A data point anywhere”

Feeding continuous streams of standard data on

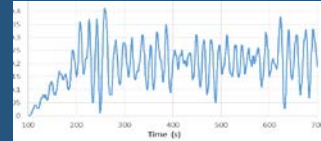
- Wave heights, periods and direction
- Energy content
- Surface current
- Spectrums
- Etc.

“in real time” in standard industry format

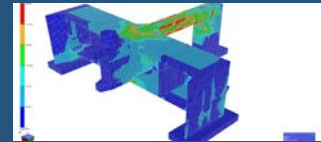
And feeding streams of state of the art online data on single waves as surface elevation

Examples of end user models

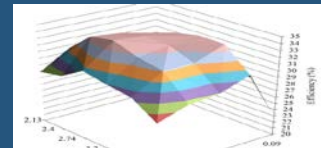
- Platform motion models



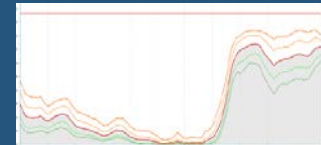
- Platform load model



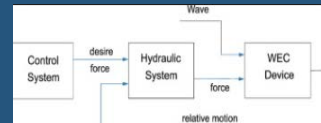
- WEC power production models



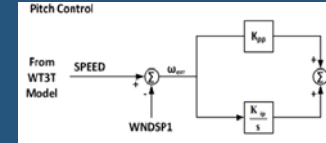
- WEC forecasting models



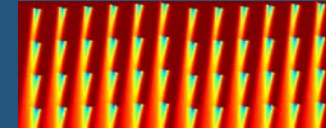
- WEC control models



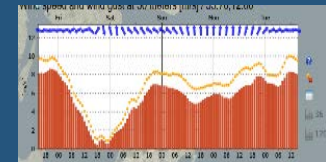
- WTG control models



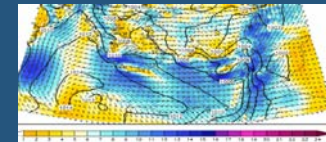
- EIA data and models



- O&M planning models



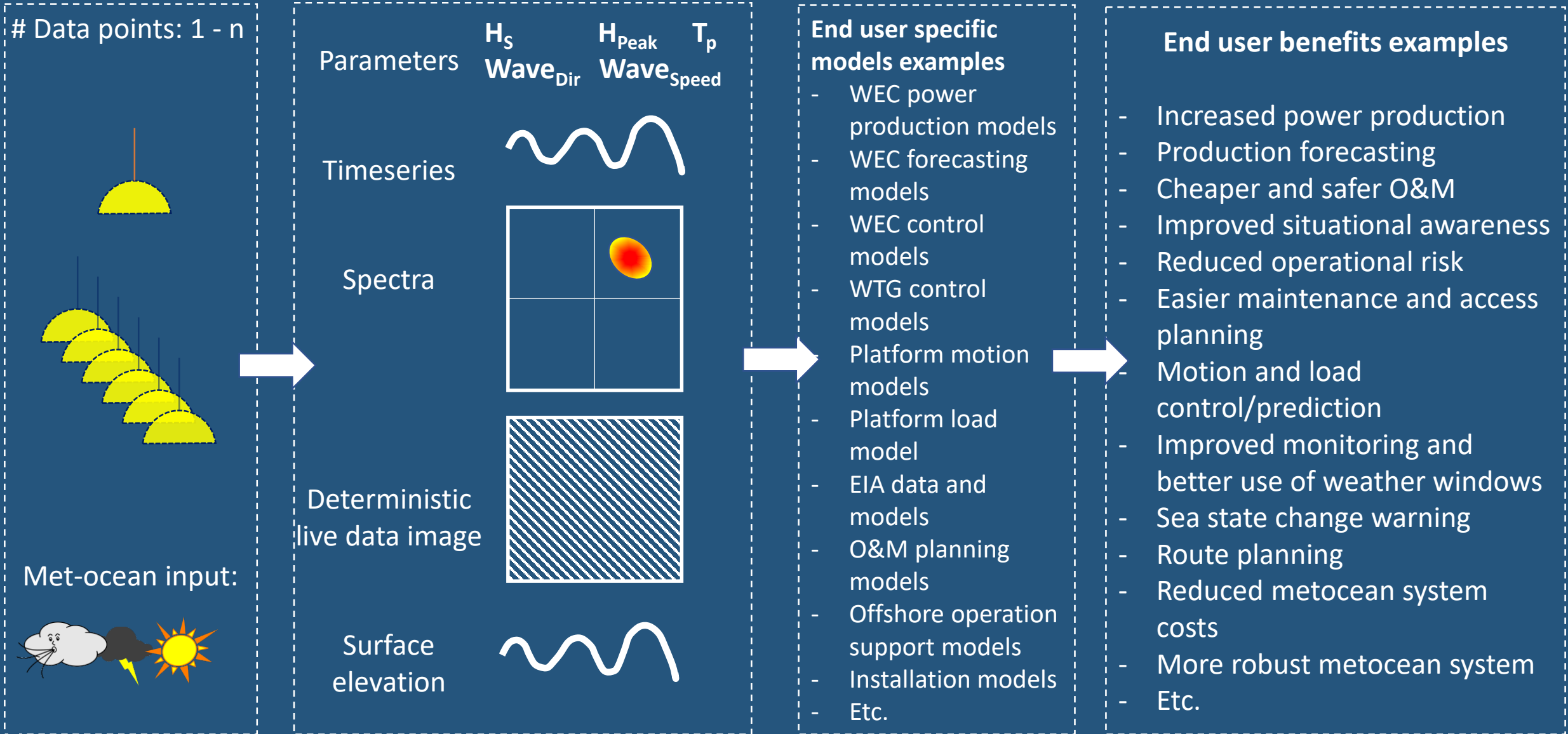
- Offshore operation support models



- Installation models



End user benefits



End user feedback

What is the operational need you envision ?

What will you use it for ?

What data?

From where?

How often?

Latency?

Data type

One point

Every second

Real time

Format

Many points

Every min

A historic archive

Accuracy

In front or back

Every hour

Something in
between

Distributed

Every day

Partners

Triad

A Norwegian SME with more than 30 years experience in research, development and testing of remote sensor technology for maritime applications.

TRIAD is the project lead and brings in competence on radar system design and maritime radar data processing

Floating Power Plant

A Danish SME with an unique, patented floating wind and wave co-generation device. Their floating power plant has already delivered power to the commercial grid.

Floating Power Plant is developing operational control algorithms based on the sensor output data.

Uni Research Polytec

A Norwegian Research institute with core expertise in operative met-ocean forecasting and wave modelling.

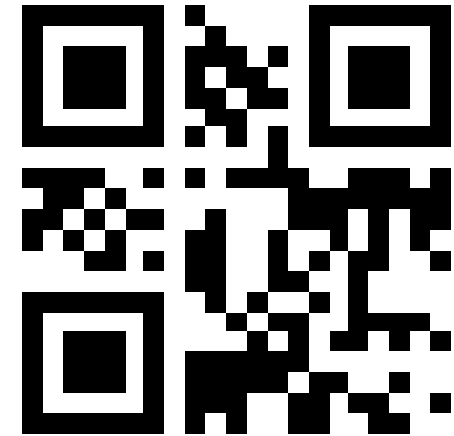
Uni Research Polytec is in charge of wave modelling and forecasting.

Contact information

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