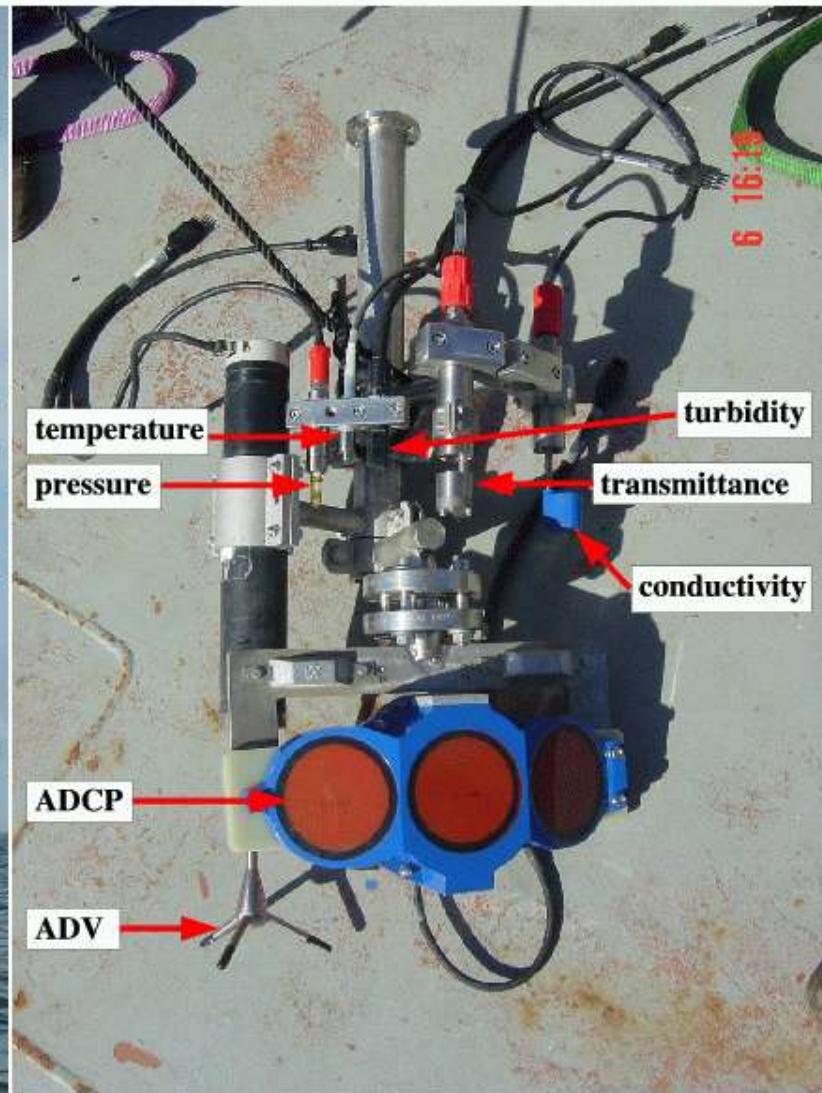
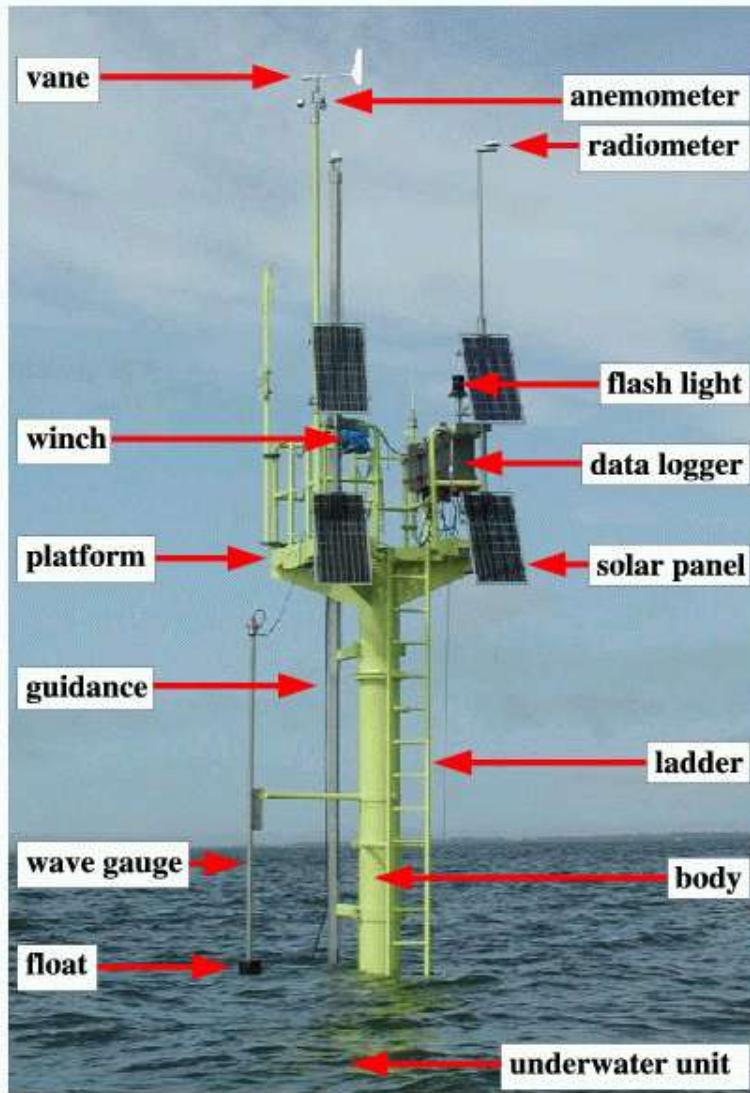




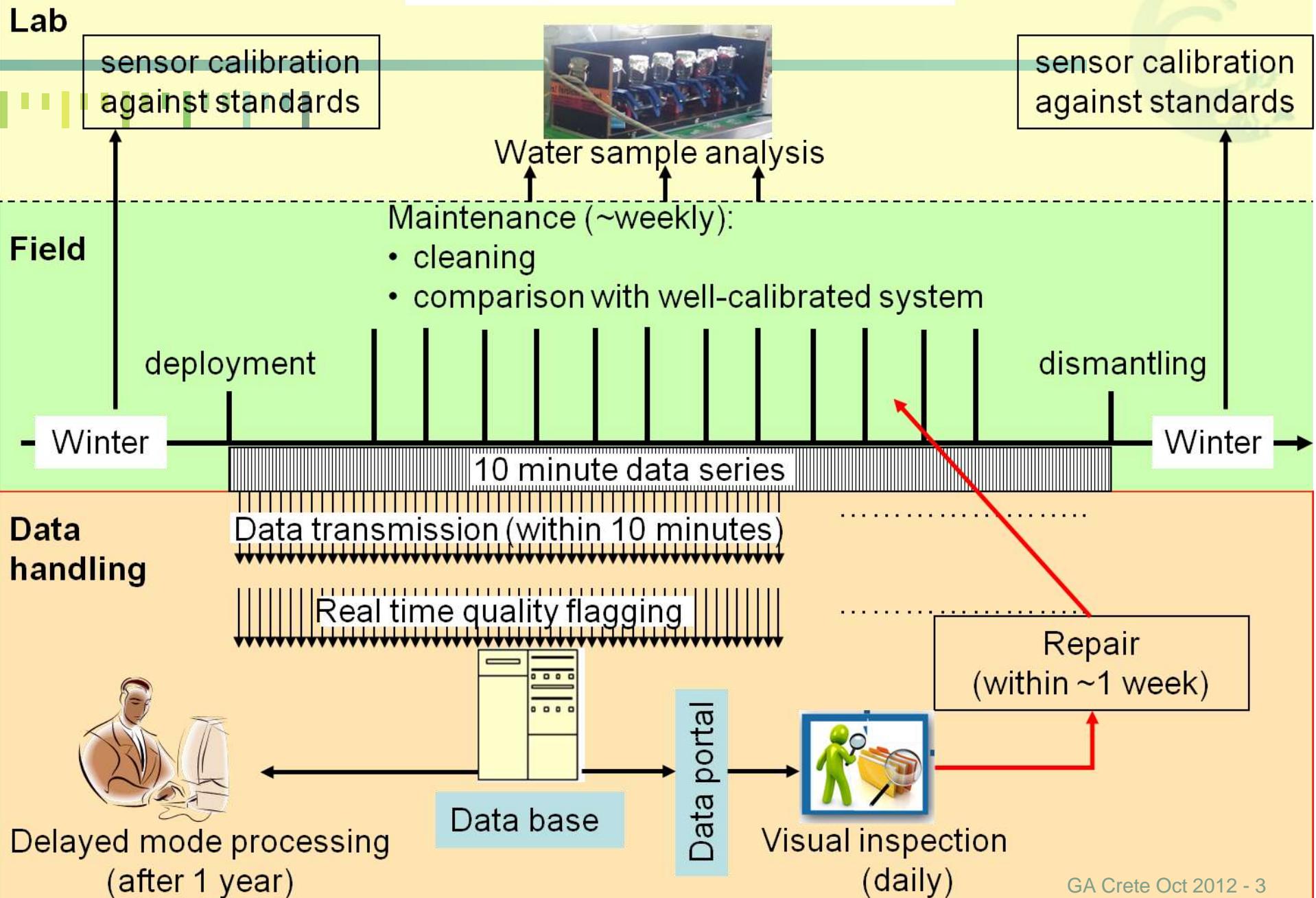
FerryBox Data Handling and QA at HZG

W. Petersen,
Helmholtz-Zentrum Geesthacht
Email: wilhelm.petersen@hzg.de

The measuring pole in the Hoernum Basin



HZG pole QC scheme



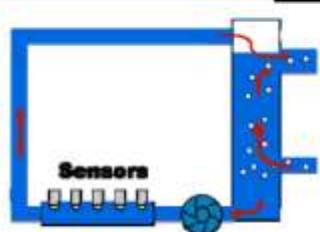
TASK 10.5 QA FERRYBOX REAL-TIME DATA



Real-Time Mode

→ Post Processing

All data stored
aboard on FerryBox
computer



All parameters filtered flagged
by housekeeping parameters

- status of the FB
- flowrate
- speed of the vessel

Single parameters flagged¹⁾ by

- range-check (reasonable regional and seasonal limits)
- frozen values
- variance (noise)
- spikes

¹⁾ MyOcean/SeaDataNet flagging scheme

HZG FerryBox Database

Transfer to HZG and import
into the FerryBox database

Stored information in the
Database per data point:

- date/time
- longitude/latitude
- physical value
- quality flag
- minimum
- maximum
- variance
- counts

automatic processing

Web-based visualization
tools on ferrydata.hzg.de

MyOcean ftp site
(NIVA)

DELAYED MODE FERRYBOX DATA QA



Delayed Mode

- Quality Assessment
- Data Management

Flagging¹⁾ of:

- frozen values
- after departure problems
- noisy values
- spikes
- visual control
- comparison with bottle samples analyzed in the lab

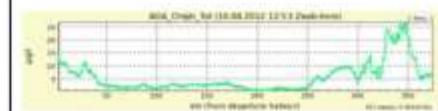
¹⁾ MyOcean/SeaDataNet flagging scheme

HZG FerryBox database

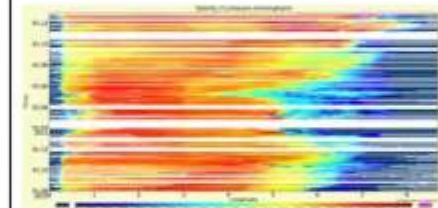
- quality checked values
- plot and export of the quality checked data from all FerryBoxes from HZG on ferrydata.hzg.de

manual processing

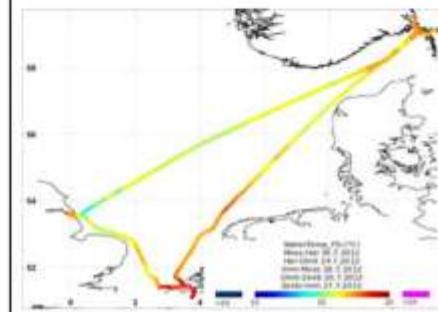
Transect Plot:

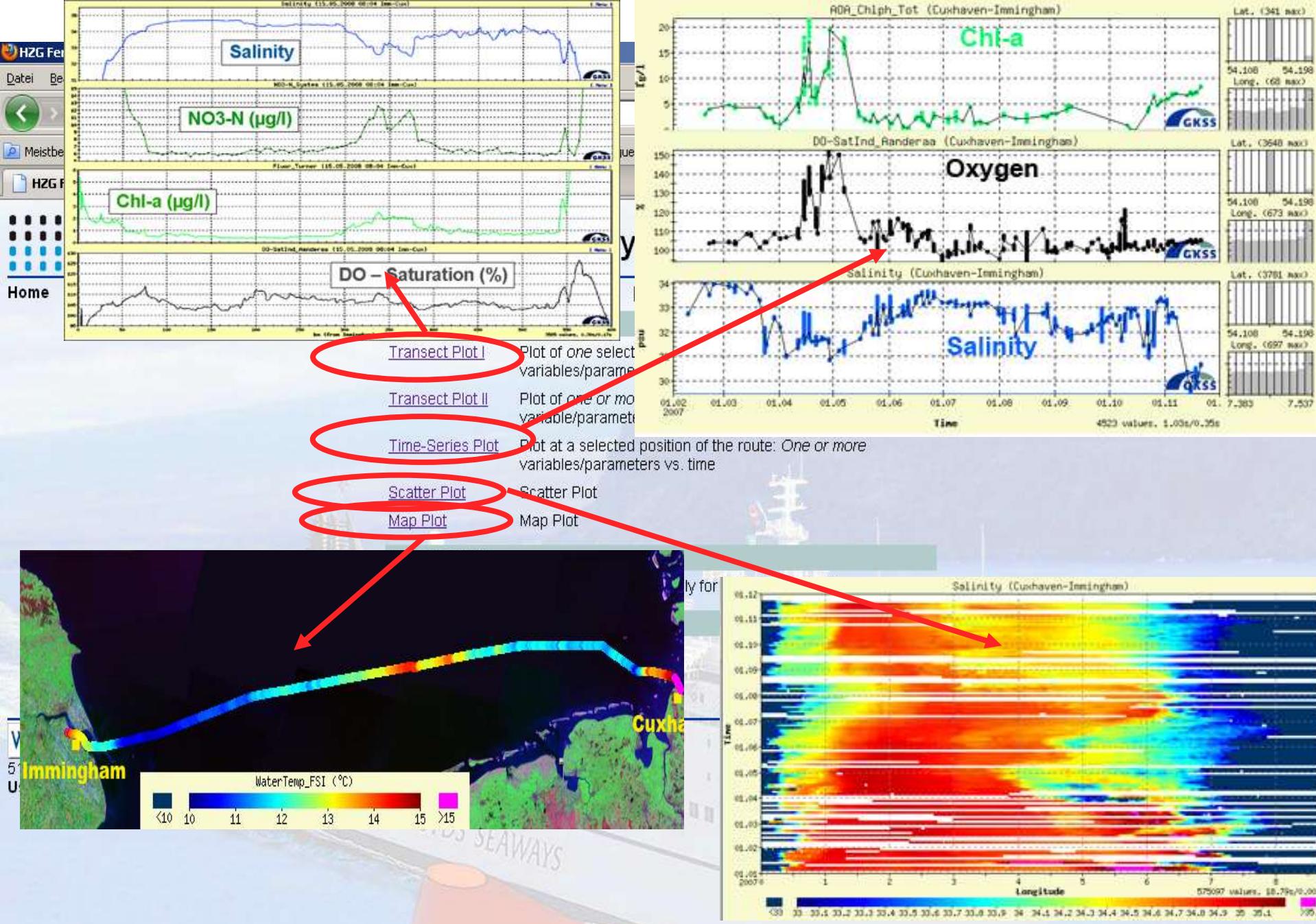


Scatter Plot:



Map Plot:





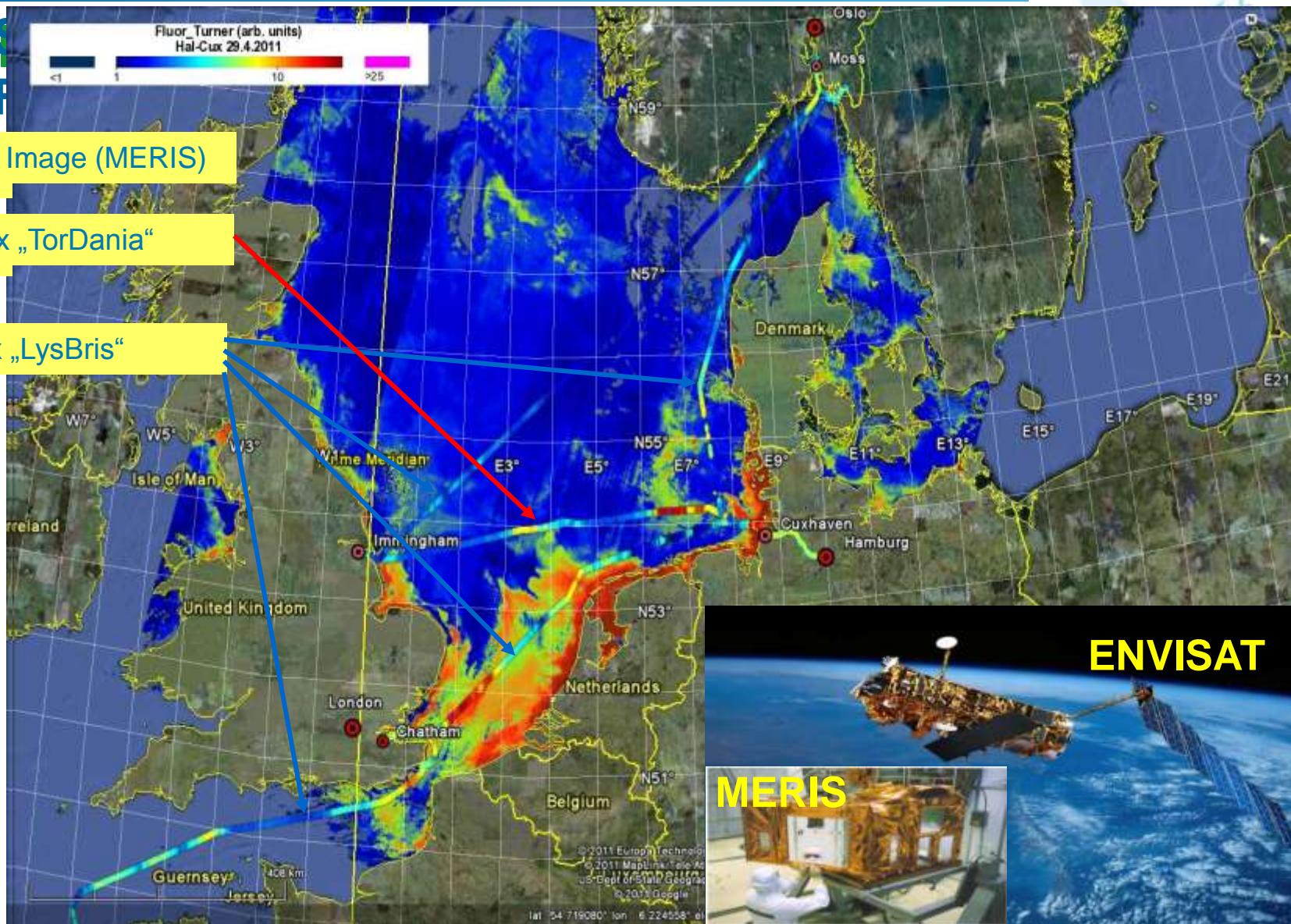
COMBINATION OF CHLOROPHYLL-A DATA:

...
S
R

Chl-a Satellite Image (MERIS)

Chl-a FerryBox „TorDania“

Chl-a FerryBox „LysBris“



CONCLUSIONS



- Storage of data on relational database gives high flexibility regarding further evaluation of data
- Interactive web access allows:
 - visualisation with different kinds of presentation of the data (transects, pooled data (scatter plots), maps, time series at certain position..)
 - data control and data correction including quality flaggin
- HZG can offer database FB data storage of external user (with own login and rights for editing)



Thanks for your attention!

Pole real-time filter



- Missing data
- System voltage
- Maintenance period
- Min/Max range
- Spike
- Stuck values
- Flagging: Missing; bad; probably good