Mediterranean Insitu TAC

Plan for assembling and reprocessing ‘historical’ data

HCMR and OGS

MY OCEAN 2

Marine Core Service

Data assembly plan

L. Perivoliotis, HCMR

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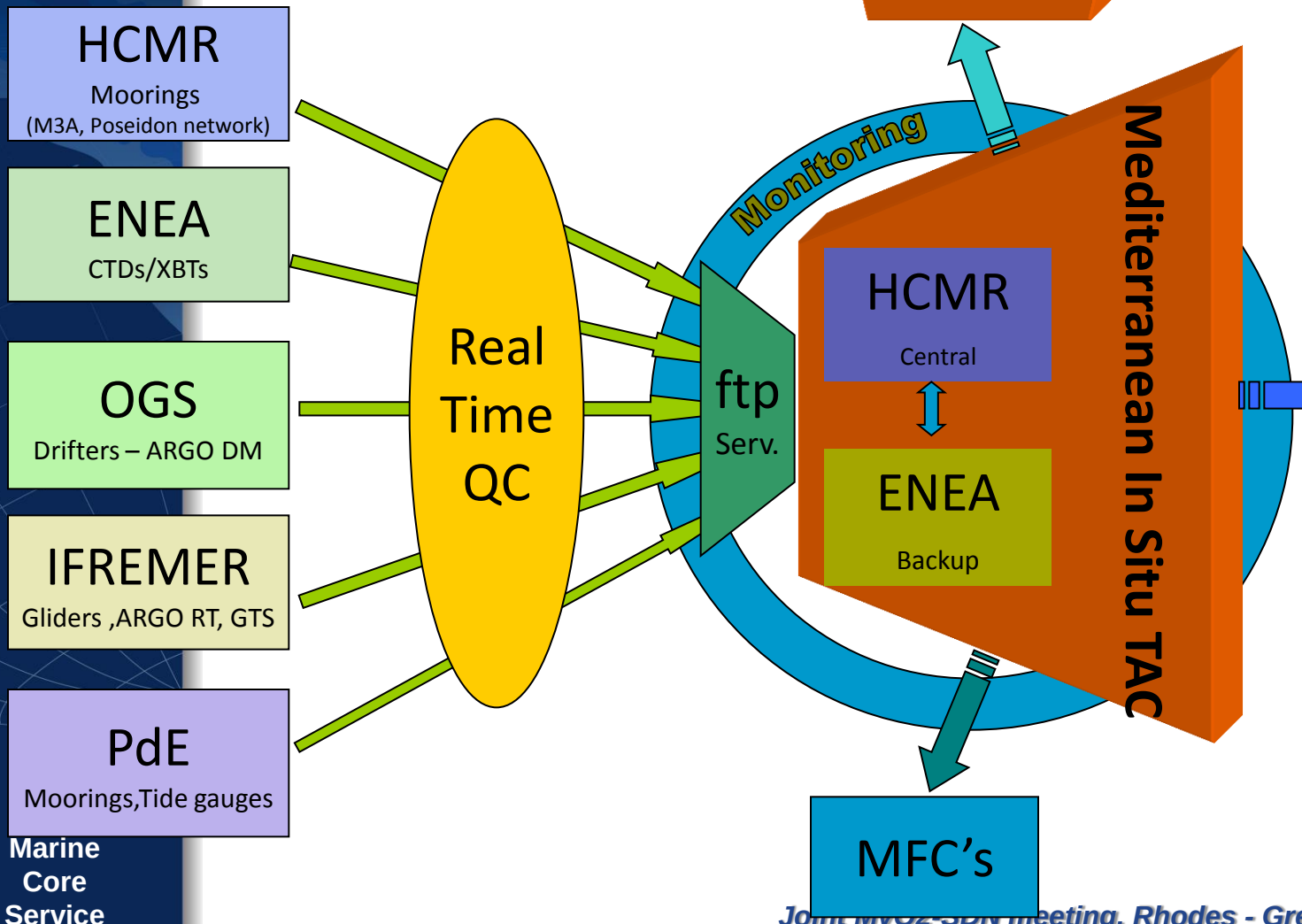
Current status

HCMR collects T&S data in near-real time from the following partners:

- Ifremer (France)
- Puertos del Estados (Spain)
- HCMR (Greece)
- ENEA (Italy)
- OGS (Italy)
- CNR (Italy)

Med In Situ TAC Production Line



The Med portal contains data beyond the MyOcean portfolio by hosting all the available data from the different platforms (meteo & wave data, additional marine parameters)

External Users
(RIU, EIA)
-Public,
-Standard,
-Specific
-Privileged
(Downstream)

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Med InSitu TAC

Data availability on 15th of September 2012

122 profilers
33 during the last 30 days
89 in archives

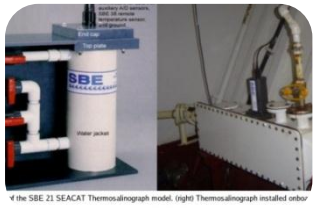
19 Gliders
5 during the last 30days
14 in archives

99 moorings
44 during the last 30 days
55 in archives

1172 drifters
14 during the last 30\d
1158 in archives

79 XBTs
0 during the last 30d
79 in archives

20 CTDs
1 during the last 30d
19 in archives



35 Thermosalinographs
2 during the last 30d
33 in archives

1649 unique platforms

103 the last 30 days, 1546 in archives

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Historical data already available in Med Insitu TAC

IFREMER	• Moorings data since 2000 • Profilers data since 2000 • Vessel data since 1990 • Drifters data since 1999
OGS	• Drifters data since 1986
HCMR	• Moorings data (T,S) since 2000
PdE	• Moorings since 2009

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Building historical time series

- In MyOcean I, there was made a first effort to create validated 'historical' T&S time series (starting at 1990). According the MyO-I project plan, this effort was mainly realized in a pilot phase: Not all the available data were analyzed and processed.

- The partners in the Mediterranean which are already participated in MyOcean, will be contacted in order to specify the length of their T&S data availability.

Building historical time series

- A critical gap was identified during MyOcean-I regarding the data availability in Adriatic
- A connection has already made with ISPRA through EMODNET and a first agreement was made for the provision of its data.
- Connection with relevant institutions in Slovenia and Croatia has also been planned to fill the gap in the Adriatic Sea
- The Levantine Sea is also poorly covered. OC-UCY will be contacted for the provision of the available T&S data in the area.

Reprocessing of in-situ T&S data in the Mediterranean

Giulio Notarstefano

Pierre-Marie Poulain

OGS – Trieste, Italy

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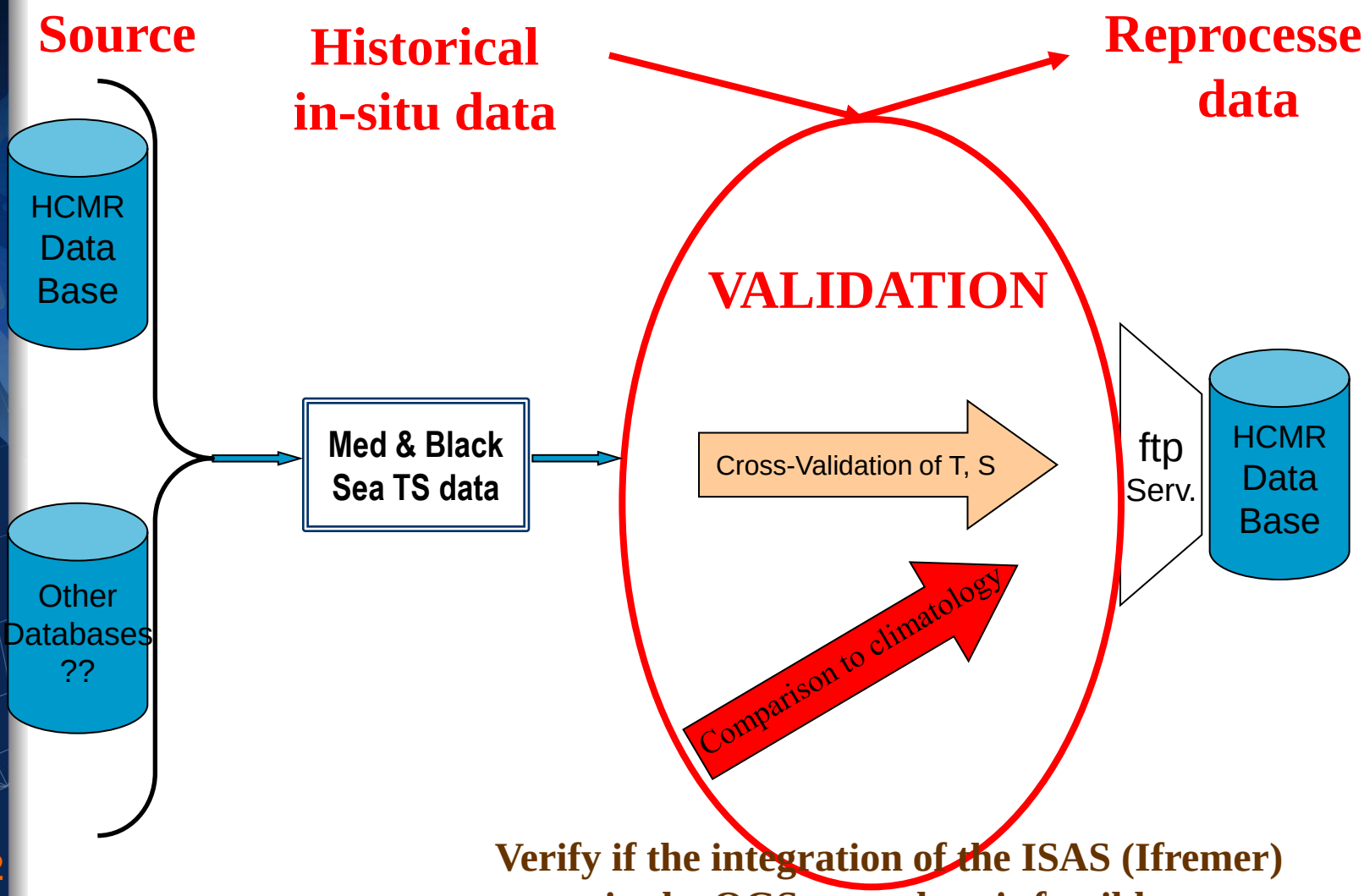
T&S Validation



Verify if the integration of the ISAS (Ifremer) in the OGS procedure is feasible

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T&S Validation: standards

- "Cross-validation" of the physical variables (T, S) and comparison to climatology
- Analyze differences as a function of the spatial and temporal distances between the measurements
- Set a spatial and temporal window ➔ consistency check of the measurements within this window

T&S Validation: standards

- Validation is performed in a 2x2 degrees square,

- Depth ranges and vertical resolution:

  0-100 m → 10 m
  100-800 m → 25 m
  800-2000 m → 100 m
  2000-4000 m → 200 m

T&S Validation: comparison

“Cross-validation” technique

- Comparison between different platforms when data are available
- Small time window (60 days) → month to be validated ±30 days

- Limits: scarcity of data

- Conditions: at least 2 different platforms
  at least 5 data

T&S Validation: comparison

Comparison to MEDAR-MEDATLAS climatology

- Large time window (years) → month to be validated -several years
- Limits: possible large temporal difference

T&S Validation: anomalous values

Detection of anomalous values

- Mean value and standard deviation are computed in each water column portion
- Anomalous values are those which are out of the following predefined statistical ranges:

0 – 400 m	→	5*std
400 – 800 m	→	4*std
800 – bottom	→	3*std

T&S Validation: output

- The QC flags are, in case, changed
- Variable data mode are, in case, changed
- The reprocessed files are sent to Med server (HCMR)