IBISVAL: IBI Software for VALidation. A tool for validation and intercomparing of CMEMS In Situ TAC observations in the IBI region

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Within Copernicus Marine Environment Monitoring Service (CMEMS), the In Situ Thematic Assembly Centre (INSTAC) distributed service integrates in situ data from different sources for operational oceanography needs. CMEMS INSTAC is collecting and carrying out quality control in a homogeneous way on data from providers outside Copernicus (national and international networks), to fit the needs of internal and external users.

CMEMS INSTAC has been organized in 7 regional production units (PUs) to rely on the EuroGOOS ROOSes. Each PU aggregates data and metadata coming from providers. One of these regions is the European south-west shelf or IBI (Iberia – Biscay – Ireland) region.

The accuracy of the data received is checked on various levels. The quality control procedures for the data include different routines for NRT and REP products. Additionally, data series are visualized to detect errors. Sometimes, it is necessary to go further, it is good to compare the whole data series with other redundant sources to find out if our data fit.

The IBI region, managed by Puertos del Estado, has recently developed a new system called NOSTROMO (New Operative's System, Tools, and Resources for Ocean Monitoring and Observations), an integrated solution to control and monitor all the steps of the IBI INSTAC operative: gathering data, checking data quality, generating NetCDF files, synchronizing with other PUs and synchronizing with the CMEMS central dissemination unit (DU). The jewel in the crown is IBISVAL, a new tool for validating and intercomparing the observations gathered by the CMEMS INSTAC with other sources: nearby stations, hindcasts or satellites. One of the goals of this tool is the buoys wave data validation against altimeter data from satellites (which could be extrapolated to the whole INSTAC and in particular to the GLO wave reprocessed product).

The proposed oral presentation will be focused on IBISVAL, an innovative improvement of the CMEMS INSTAC. It will show the development flow, going from the analysis and preprocess information (satellite files processing), a brief explanation of the functioning and, finally, some results and examples obtained with the tool. Nevertheless, the hidden goal will be to show how INSTAC is working from the point of view of one particular region, the IBI (but extended to the others), how INSTAC provides added value to data, how INSTAC is improving their processes to increase the quality of the data, to build trust in the community.