



**ships4sst**  
shipborne radiometers for sea surface temperature

## Project Aim

To validate Copernicus Sentinel-3A and Sentinel-3B2 SLSTR SST data products using Fiducial Reference Measurements (FRM)

### OBJECTIVE 1

**Validate Sentinel-3A and Sentinel-3B SLSTR L1, L2 and higher order SST products to FRM standards.**

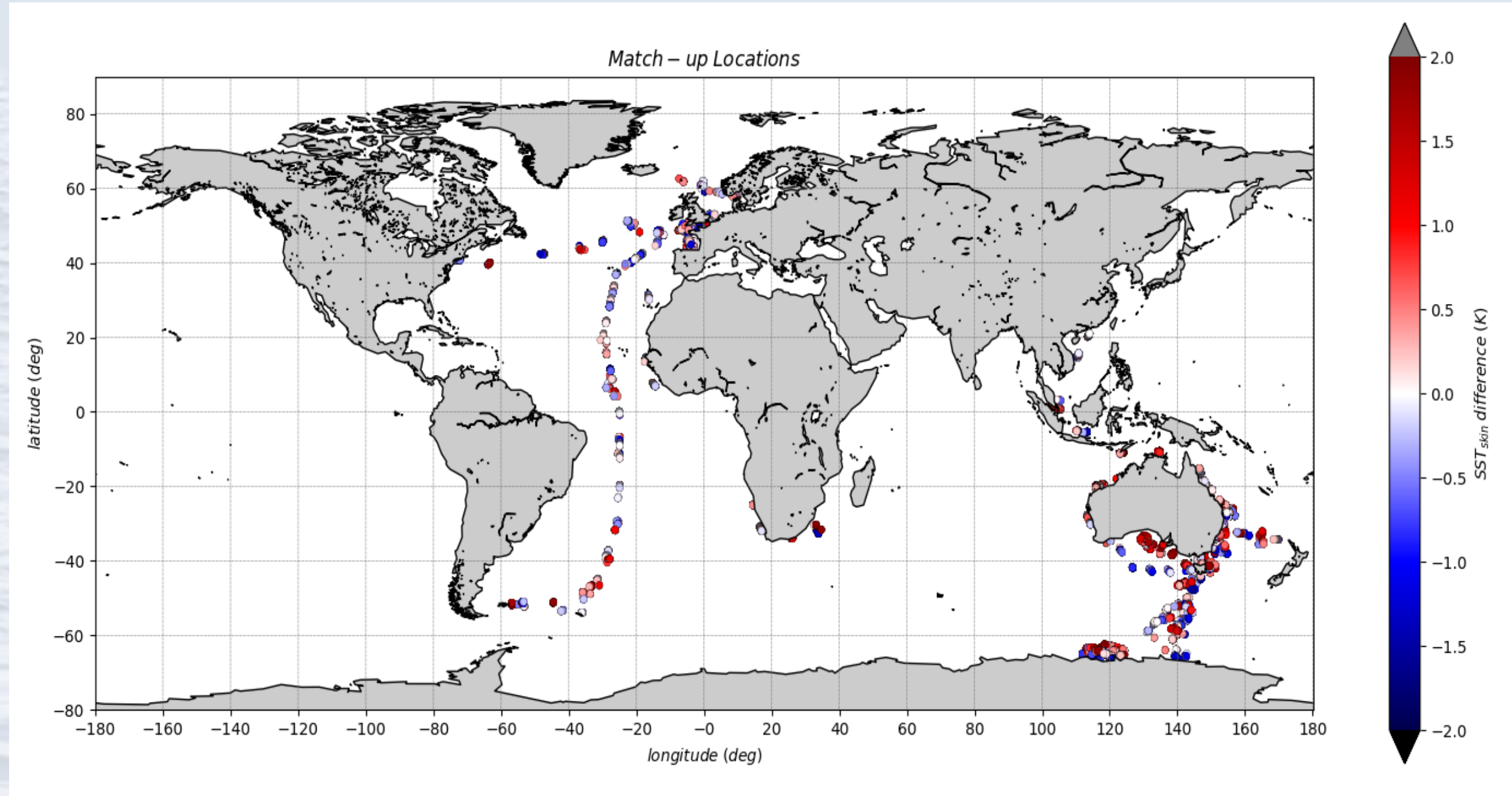


Figure 1: The match-up locations for the ISARs and SISTeR 2016-2018; *In situ* FRM field measurements made using these instruments are collected, processed, analysed and publicised through this project. These instruments are near-contemporaneous with satellite data from the SLSTR-A and SLSTR-B instruments and so can be effectively used to validate the L1, L2 and higher order SST products from S3-A and S3-B.

### OBJECTIVE 2

**Maintain and deploy on a continuous basis Thermal Infrared Radiometers (TIR) FRM and necessary supporting instrumentation to validate Sentinel-3 SLSTR SST products.**

The DMI and UoS ISARs, and the RAL SISTeR instruments are operated continuously and autonomously. Measurements are made continuously except in conditions of rain or excessive spray when the instrument shutters close automatically for protection.

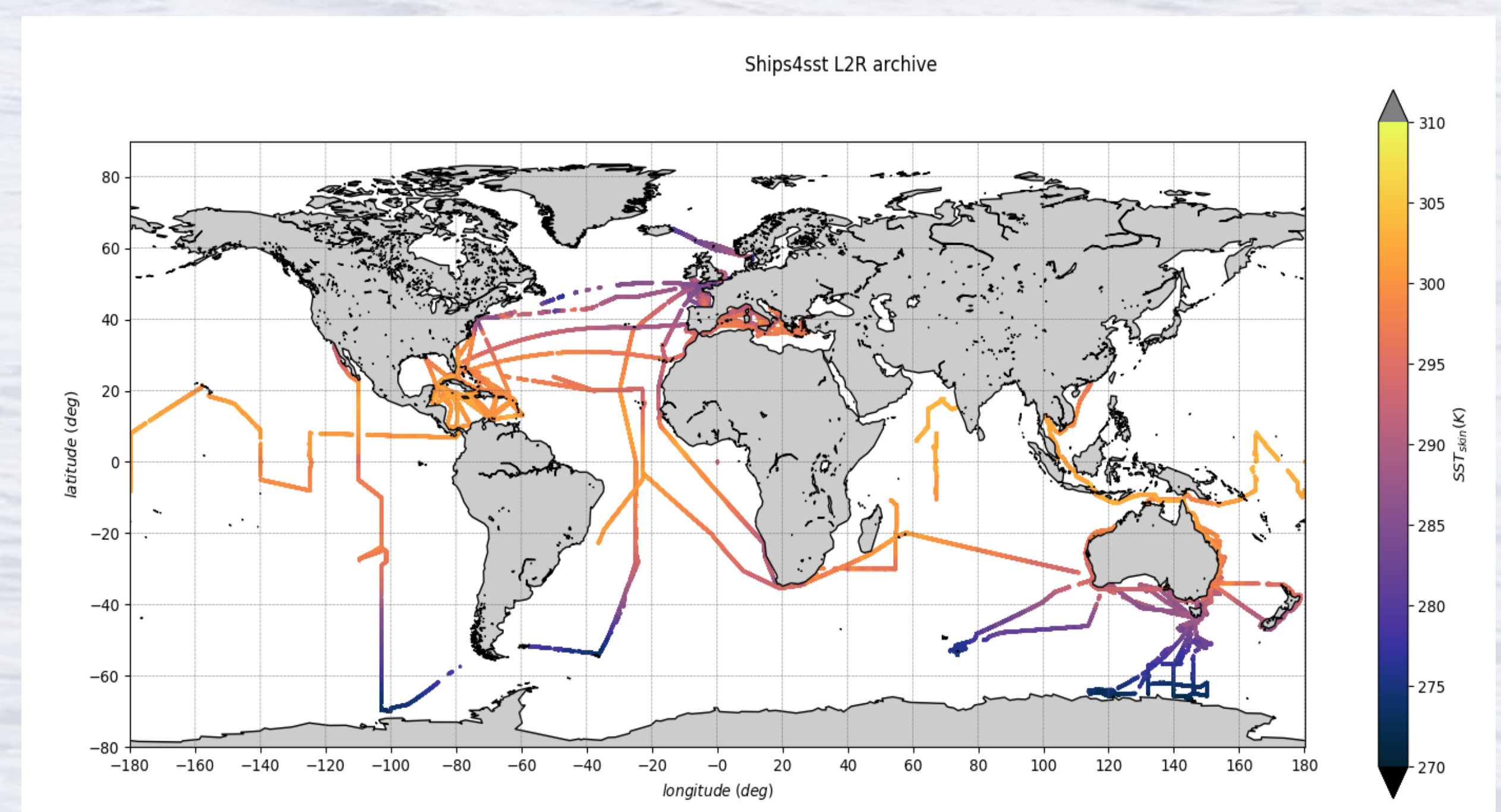


Figure 2: World map showing the SST<sub>skin</sub> data obtained by the project's ISARs, SISTeR and M-AERI data on the Ships4sst archive on 25/01/2019.

### OBJECTIVE 3

**Process, archive and quality control all data following documented FRM procedures that approve their use for FRM satellite validation.**

L2R files and uncertainties are produced by each partner and submitted to the Archive on the Ifremer website. The MDB files are produced by Felyx and then analysed by the ISFRN.

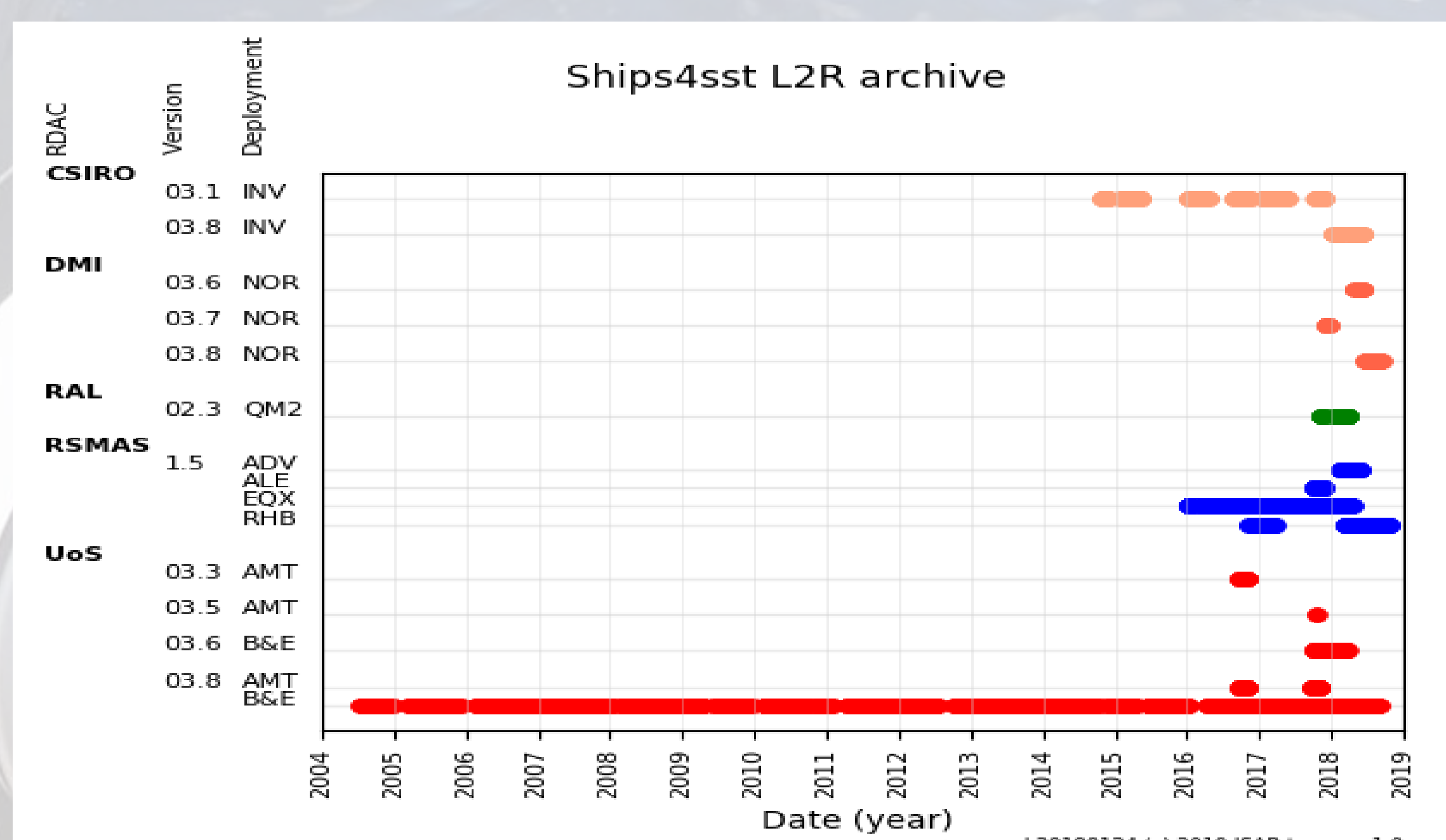


Figure 3: Archive data shown by RDAC, processing version number and deployment. Data are regularly posted on the project website, with more data in recent years.

### OBJECTIVE 4

**Deliver approved data sets and uncertainty budgets to Copernicus and the Sentinel-3 Mission Performance Centre.**

Data is uploaded to the ISFRN website and is accessible to users once an account is created. This is a shared portal where users are encouraged to upload their own radiometer data.

[www.ships4sst.org/services/data-access](http://www.ships4sst.org/services/data-access)

### OBJECTIVE 5

**Collaborate with appropriate International Scientists and Agencies using TIR for satellite validation as an International SST FRM Radiometer Network.**

### OBJECTIVE 6

**Prepare and submit peer-reviewed journal articles.**

### OBJECTIVE 7

**Conduct communications and outreach material promoting Copernicus Sentinel-3 SLSTR and the ships4SST project.**

This project is on twitter! Follow us @ships4sst

Or on our website at [www.ships4sst.org](http://www.ships4sst.org)