



ReefTEMPS, Network of coastal oceanic sensors, Open access data portal

Fiat Sylvie, David Varillon, Bernard E Pelletier, Jérôme Aucan, Régis Hocdé

► To cite this version:

Fiat Sylvie, David Varillon, Bernard E Pelletier, Jérôme Aucan, Régis Hocdé. ReefTEMPS, Network of coastal oceanic sensors, Open access data portal. RDA 15th plenary virtual meeting, Jan 2020, Melbourne, Australia. ird-03245730

HAL Id: ird-03245730

<https://ird.hal.science/ird-03245730>

Submitted on 2 Jun 2021

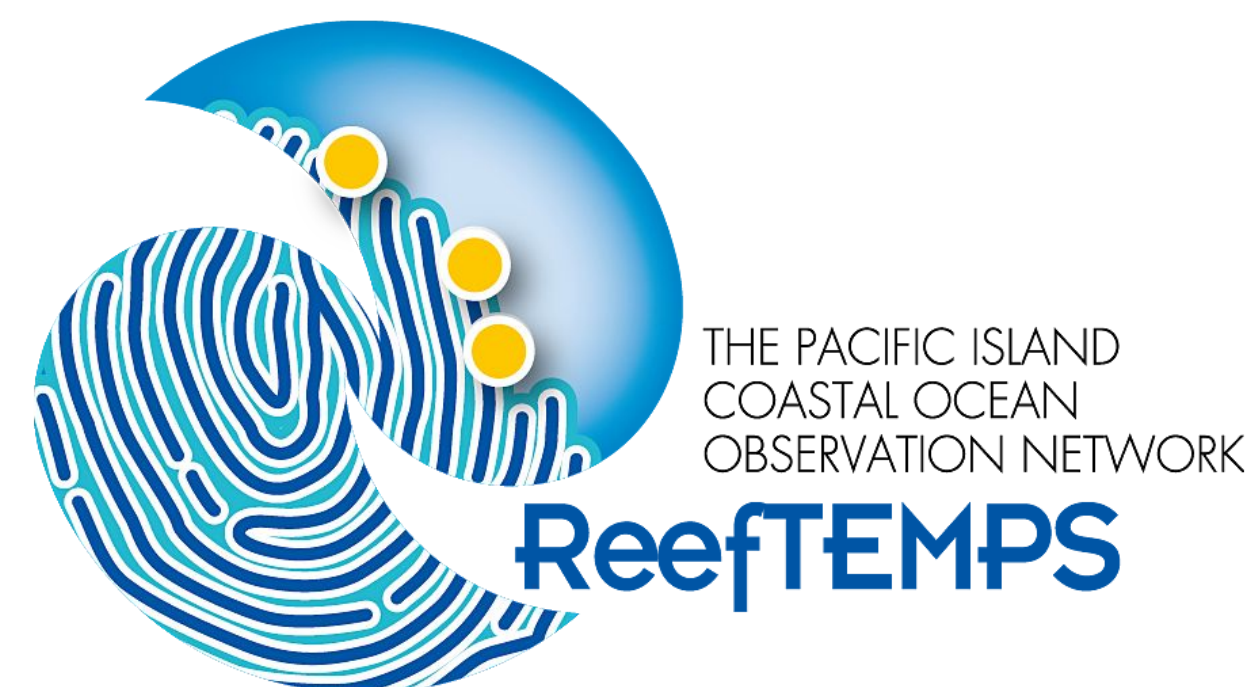
HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

ReefTEMPS, Network of coastal oceanic sensors, Open access data portal



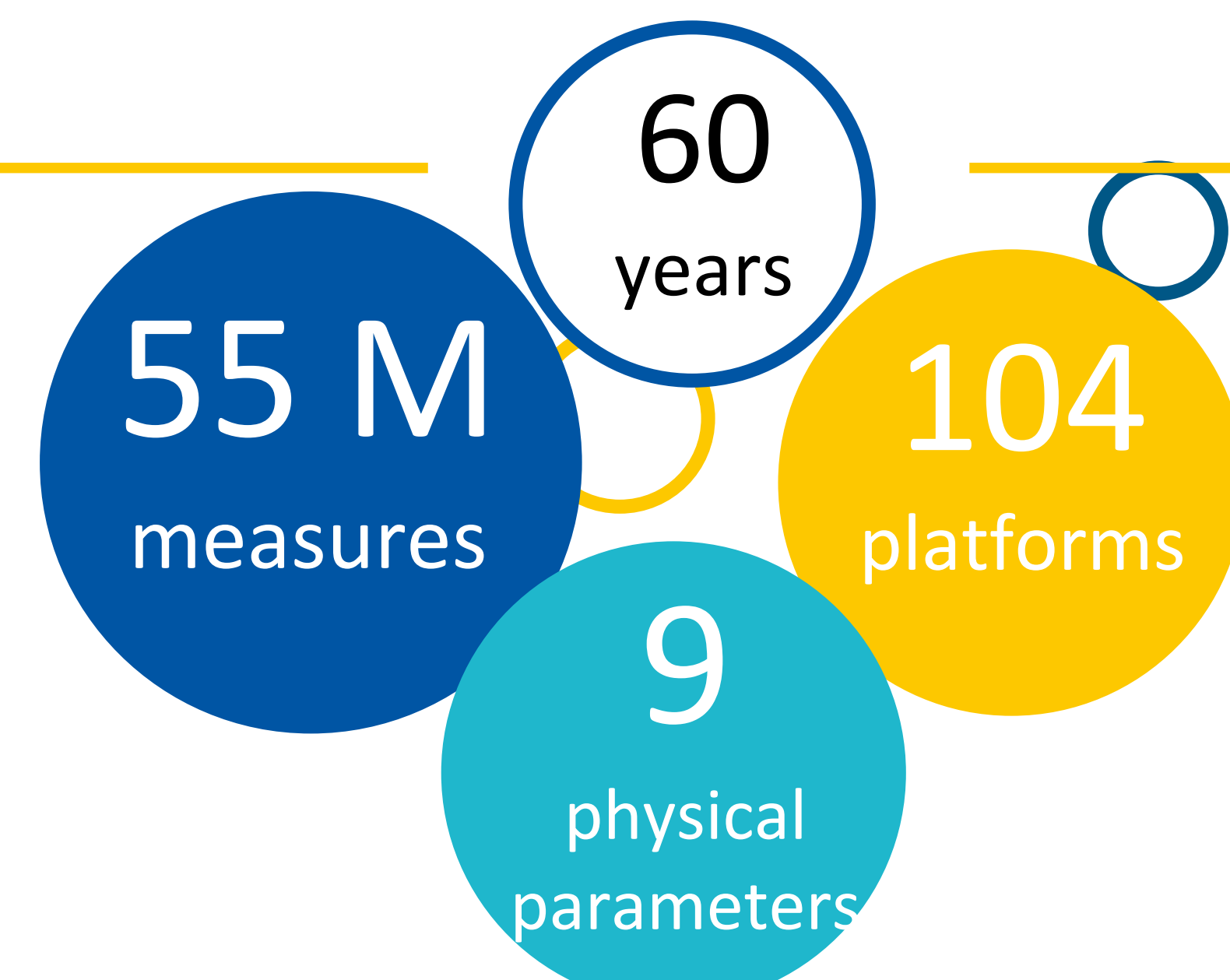
Sylvie Fiat¹, David Varillon², Bernard Pelletier³, Jérôme Aucan¹, Régis Hocdé⁴



ReefTEMPS¹ is a coastal waters observation network in the South, West and Southwest Pacific region for long-term monitoring of climate change and its effects on the status of coral reefs and their resources. It provides open access to in situ measurements from 14 different countries, over periods of up to 60 years.

The information system, established in 2011, has been designed around the principles of FAIR and provides free access to data through multiple formats and standards.

Since 2017, ReefTEMPS has been part of the ILICO² Research Infrastructure and in 2019 was recognised as a French National Observation Service (SNO).

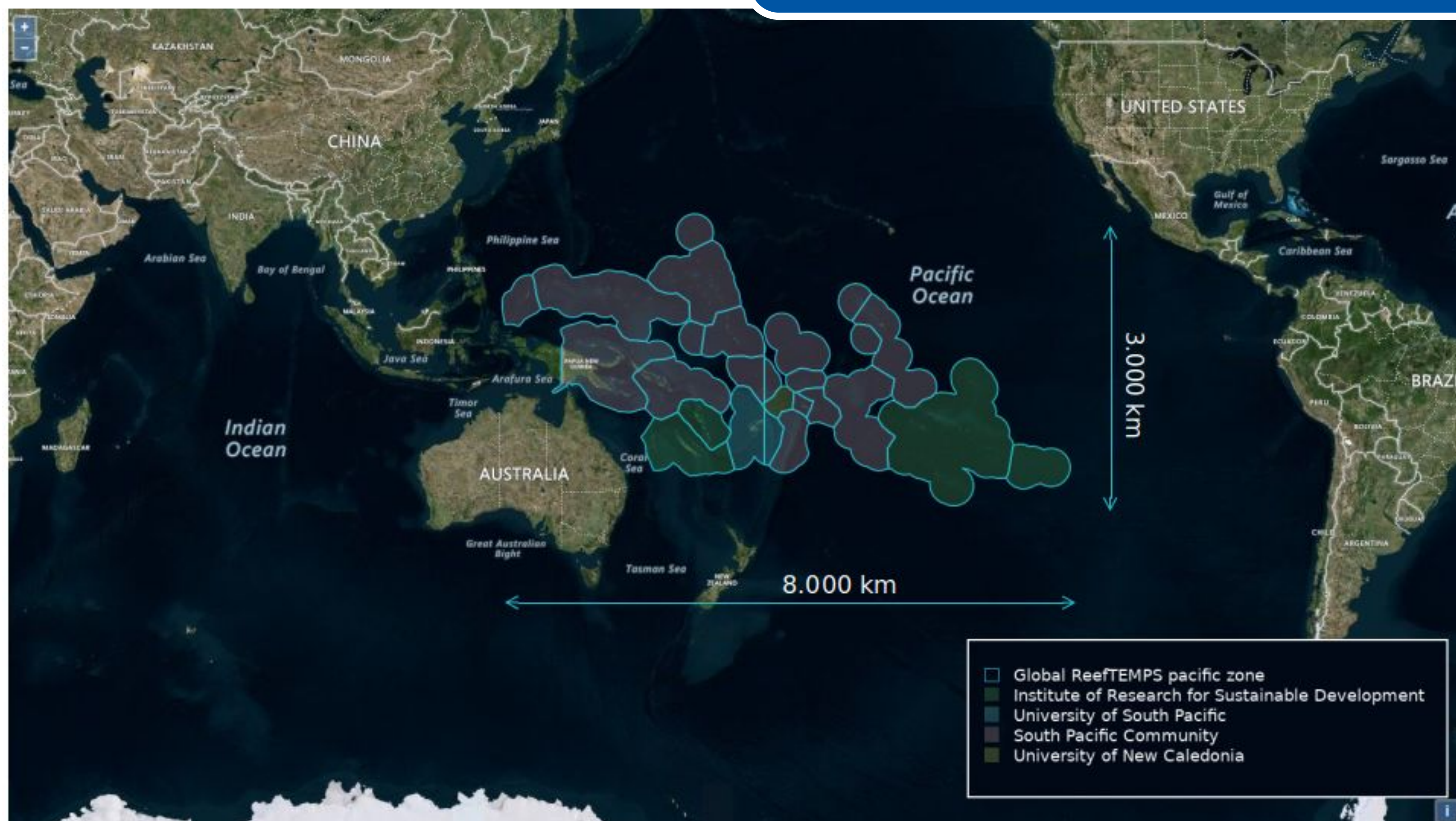


Open data architecture

- ➔ Provide services adapted to the different research communities
- ➔ Be interoperable with other databases
- ➔ Be referenced in national and international catalogs

¹ <http://reeftemps.science>

² www.ir-ilico.fr



Measurement cycles

=
data are collected in cycles, which correspond to the immersion of a sensor for 6 months to 2 years, and generated in NetCDF

NetCDF 4
Climate and Forecast (CF)
Convention,
format OceanSites

Processing cycle

=
Each measuring cycle is assigned a processing cycle, from the raw data, where no processing has yet been applied, to the various levels of qualification carried out either by automatic checks or by scientific calibration.

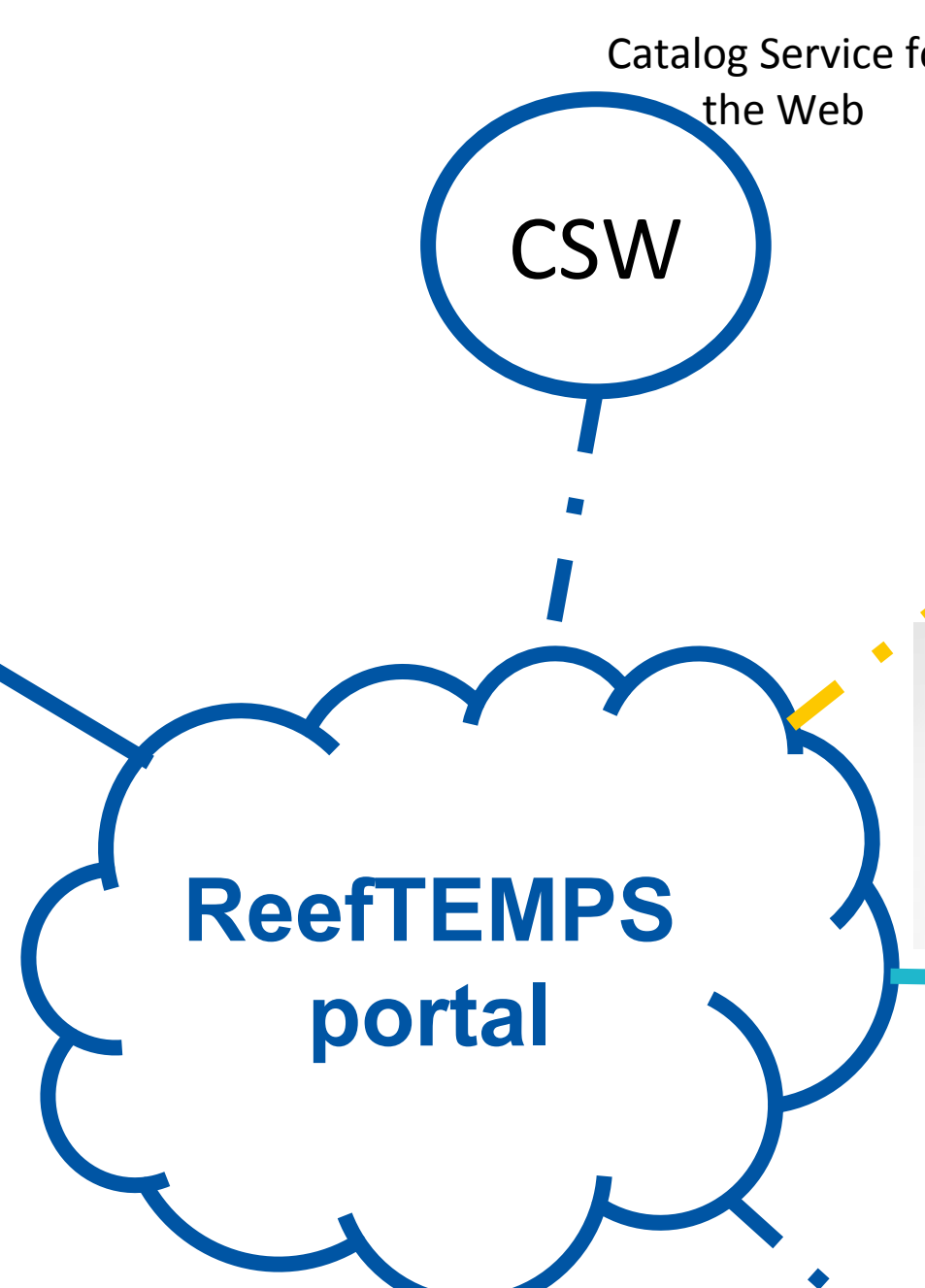
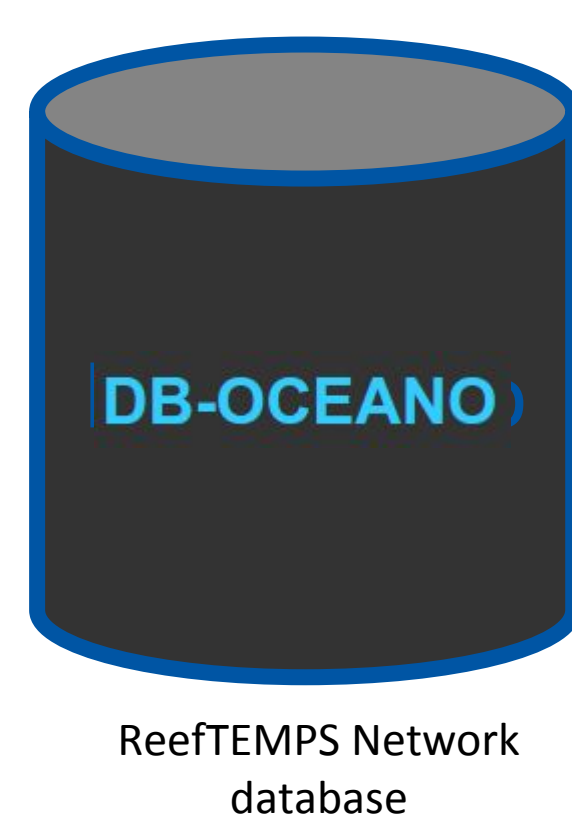
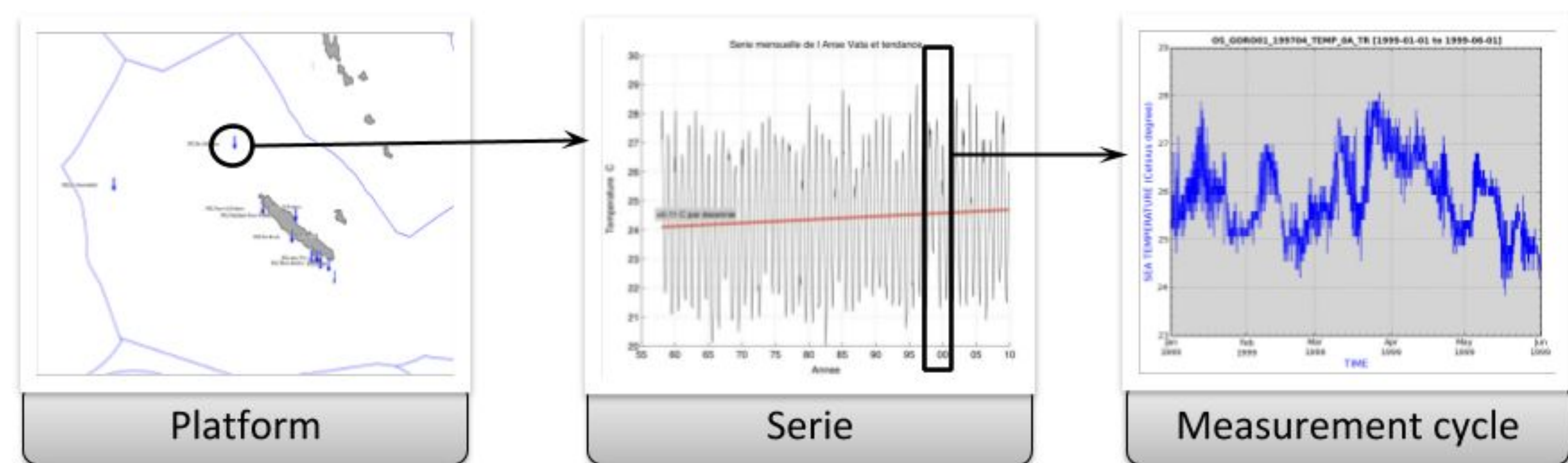
0A	RAW DATA
0B	AUTOMATIC QUALITY CONTROL
0C	NOT RECOMMEND
1A	CLIMATOLOGY CONTROL
1B	APPLICATION OF QUALITY CODE AFTER VISUAL INSPECTION
1C	VALIDATED BY PI
2A	NOT RECOMMEND
2B	NOT RECOMMEND
2B+	CALIBRATED DATA
2C	NOT RECOMMEND
2C+	CALIBRATED DATA VALIDATED BY PI
3A	NOT RECOMMEND
3B	CALIBRATED REDUCED DATA
3C	GRIDDED REDUCED DATA

Processing cycle table

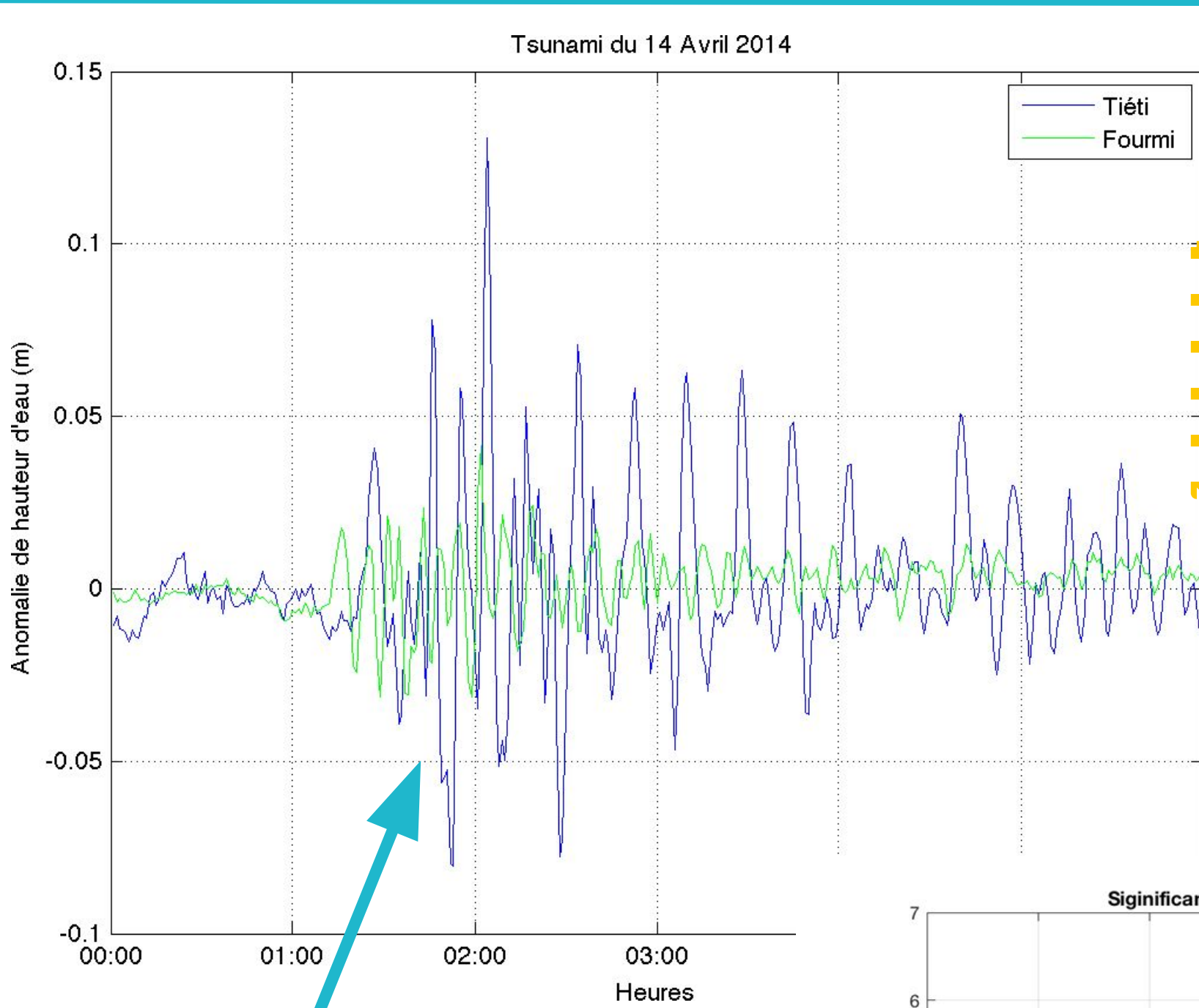
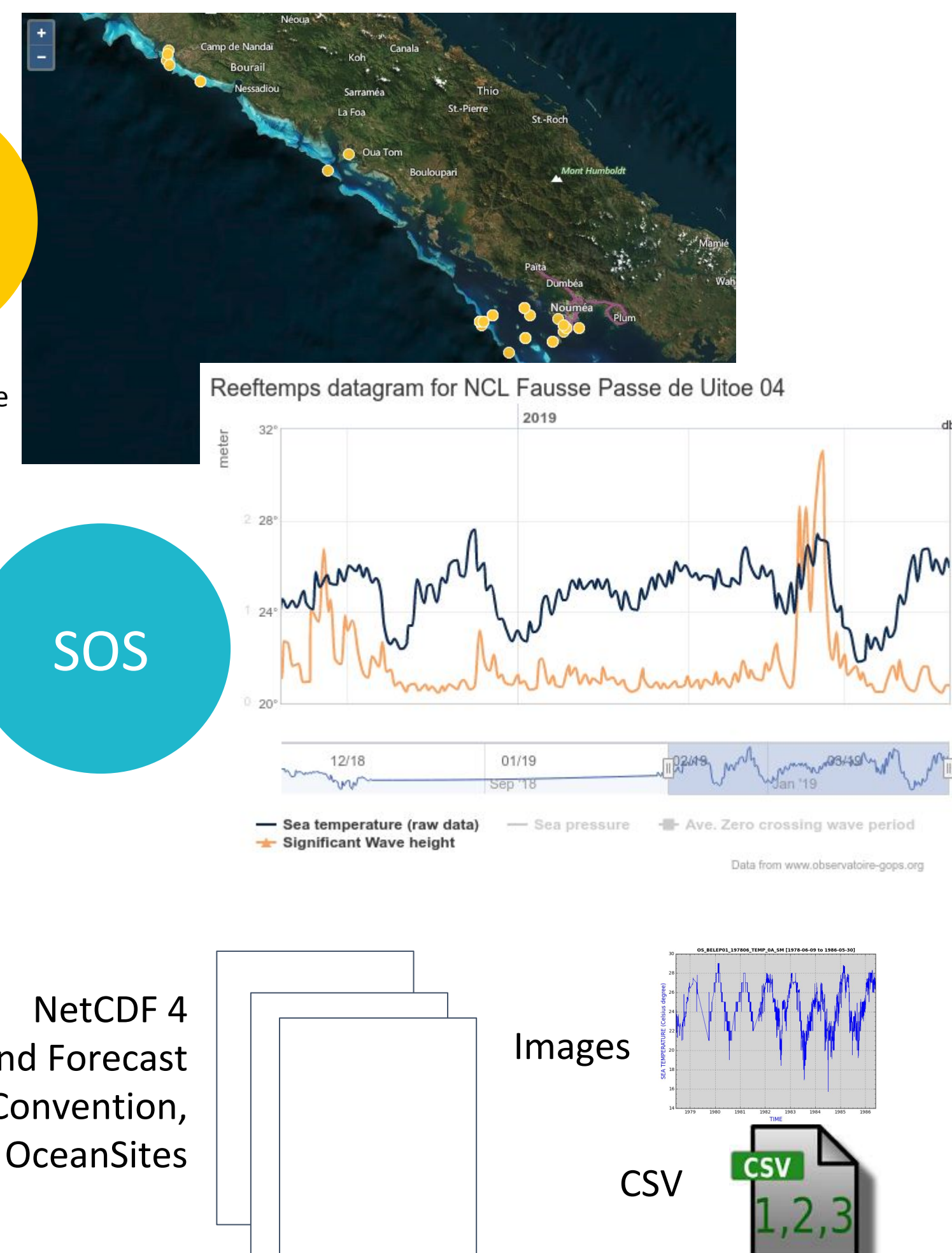
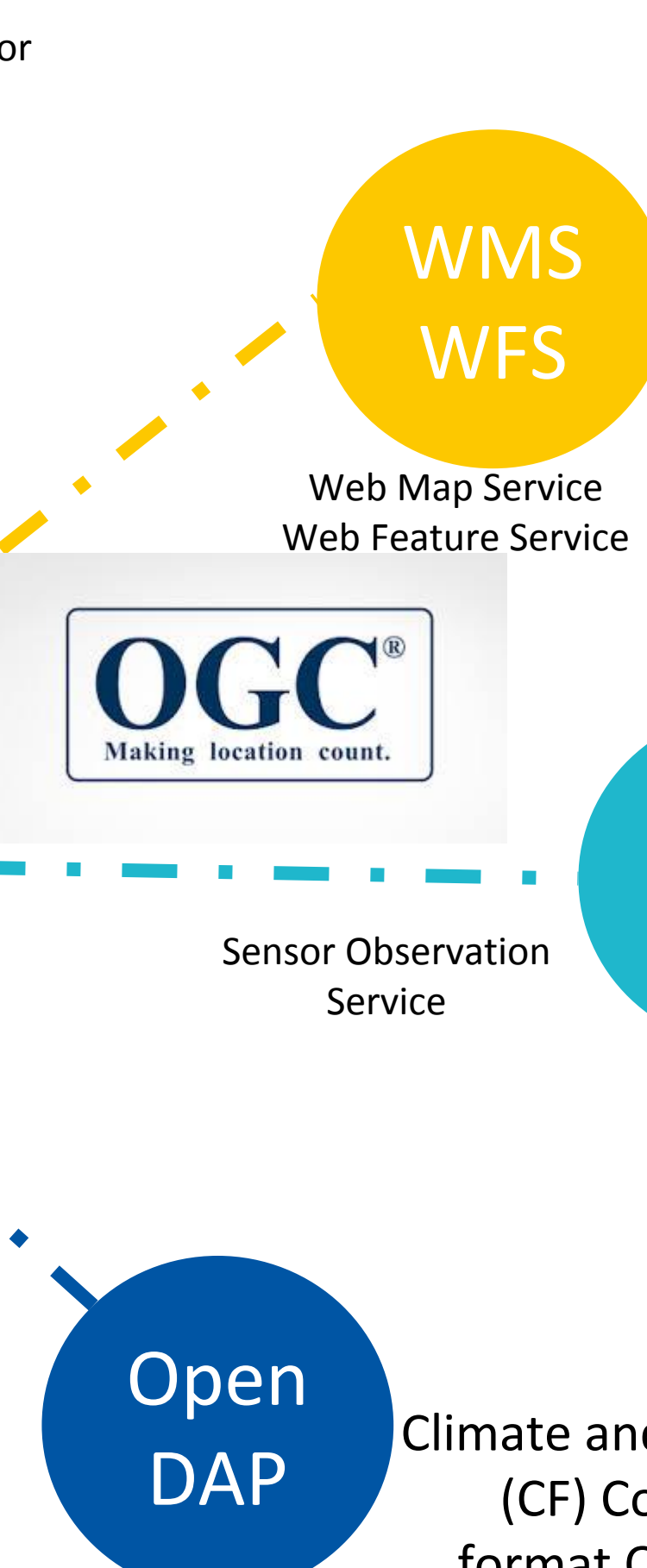
Series

=

- Datasets or series are generated by concatenating measurement cycles with the same parameters over time
- the data are distributed in series.

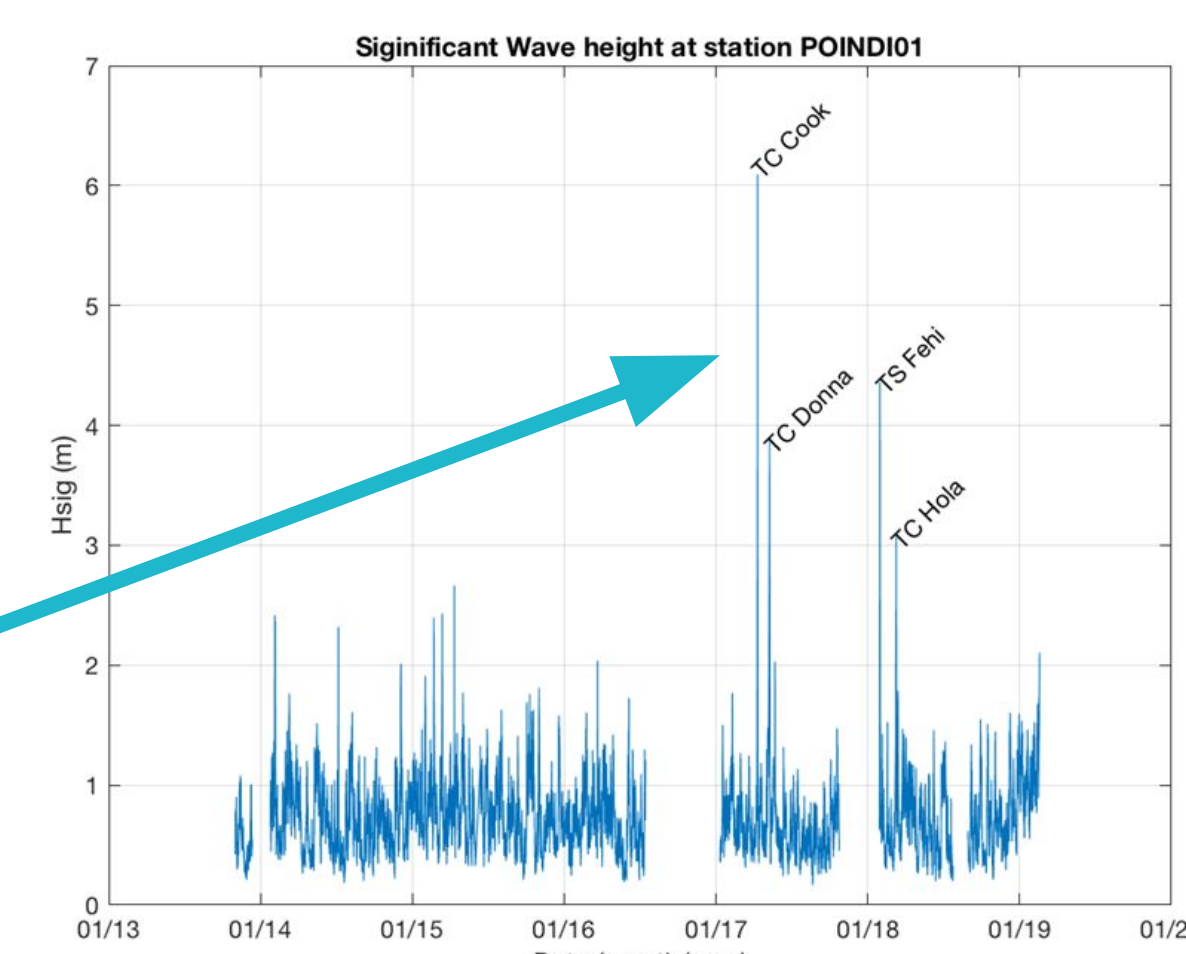


DOWNLOAD
OPEN

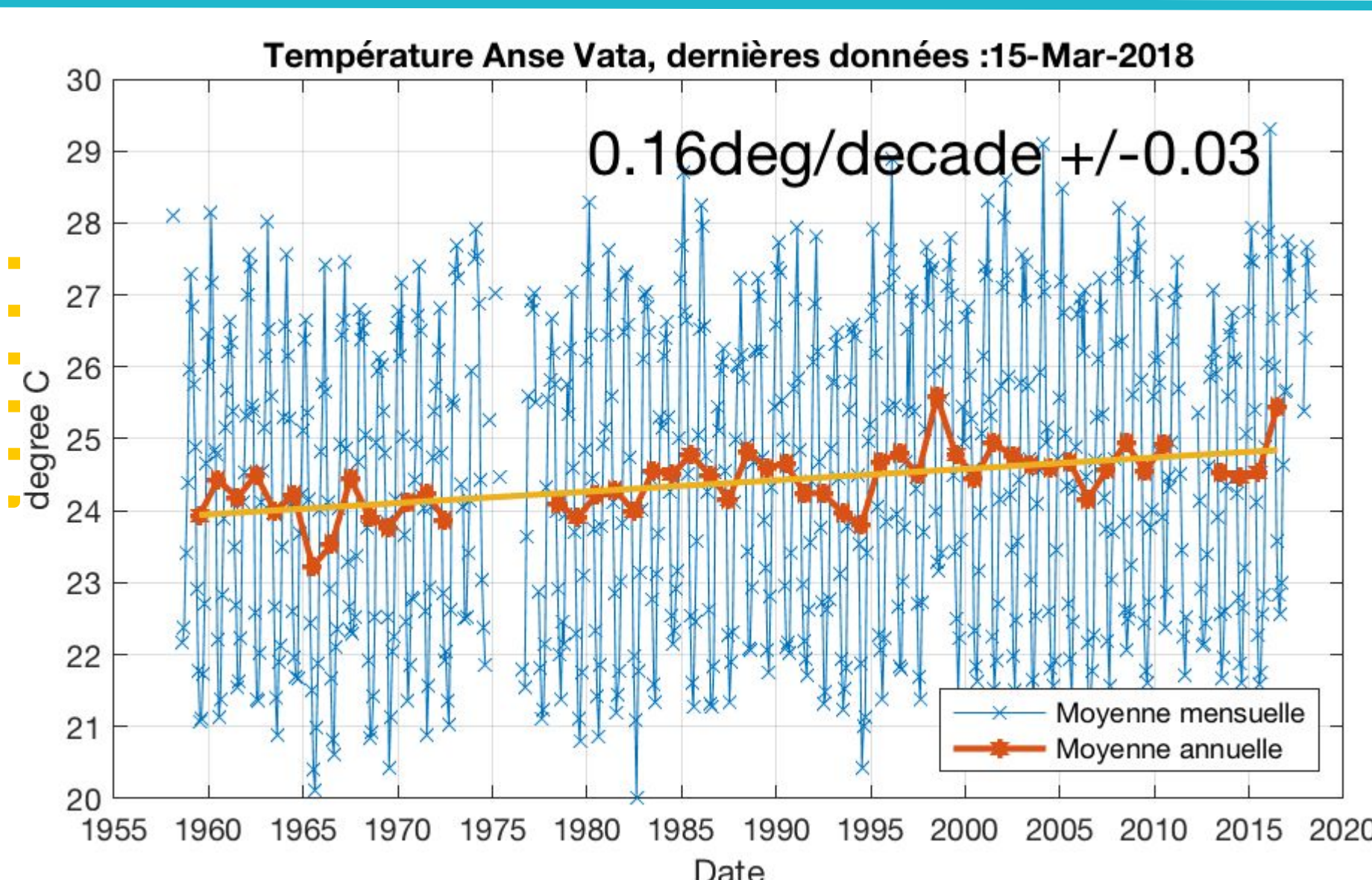


Effect of reef protection from tsunamis

Wave height during tropical cyclones

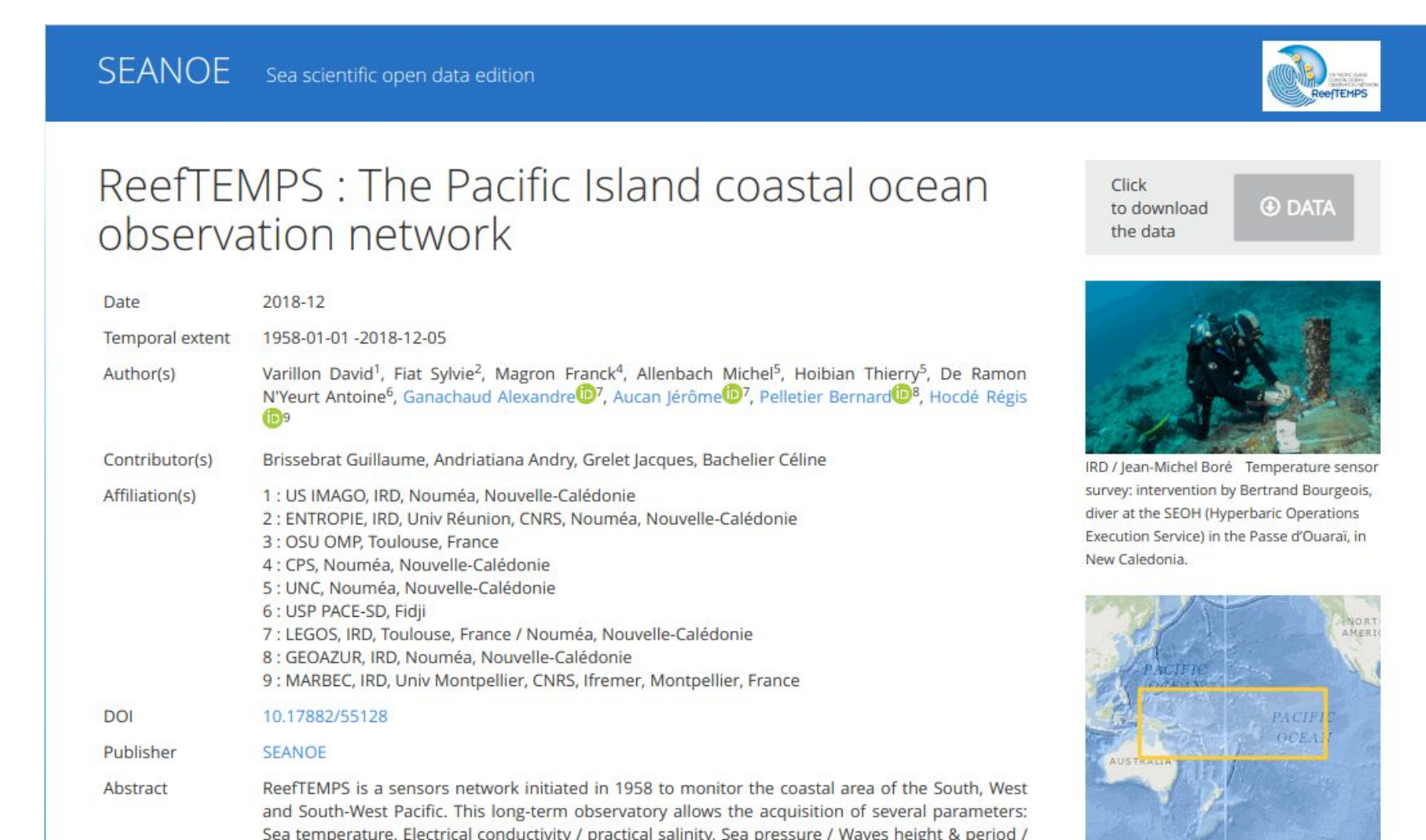


Products "Data science"



Global warming evidence

Referencement



How to cite

Varillon David, Fiat Sylvie, Magron Franck, Allenbach Michel, Hoibian Thierry, De Ramon N'yeurt Antoine, Ganachaud Alexandre, Aucan Jérôme, Pelletier Bernard, Hocdé Régis (2018). ReefTEMPS : The Pacific Island coastal ocean observation network. SEANOE. <https://doi.org/10.17882/55128>