

WORKSHOP OVERVIEW

INTRODUCTION



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PACIFIC EO WORKSHOP NEW-CALEDONIA, NOUMEA

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Context

- **CNES** and the **Government of New Caledonia** signed a **Framework Convention** in 2022 to establish concrete collaborations on Earth Observation in the Pacific.

1. Développer les usages des solutions et technologies spatiales au service du développement et de l'attractivité économique du territoire de la Nouvelle Calédonie ;
2. Mettre les solutions et les technologies venant du spatial au service des politiques publiques territoriales et des enjeux sociétaux, notamment en matière d'aménagement du territoire, d'environnement et de gestion des risques dont l'impact du changement climatique ;
3. Promouvoir les compétences et moyens scientifiques et technologiques, la formation, le dialogue science/société sur le territoire de Nouvelle Calédonie.

- DataTerra with ART GEODEV NC , a strong asset

- **CNES** and **CSIRO** signed a **Letter of Intent (LOI)** on Earth observation (EO) in 2019;

- **CNES** and **CSIRO** have developed and strengthened ties through bilateral interactions and multilaterally, notably through **CEOS - Committee on Earth Observation Satellites** - which aims to advance the implementation of the Paris Agreement.

Throughout 2023, CNES and CSIRO identified areas where scientific collaboration could be improved, and **water management** was identified as a major issue and challenge for both entities (e.g. improve synergies in terms of scientific programs, assess local/regional end-users needs)

AquaWatch Program : The aim of **AquaWatch Australia** is to monitor, forecast, help manage inland and coastal water quality, as well as associated aquatic ecosystems, while exchanging new experiences and capabilities with the AquaWatch Australian programme. A key objective is to work with local institutional partners

The main objective of the workshop is to share experiences and understand **key water quality challenges** in **New Caledonia**, which would then lead to the co-design of an AquaWatch pilot site in New Caledonia (France).

This would also allow for more direct contributions and joint hands-on work by CNES and New Caledonia partners in the integration of data from satellites with in-situ water quality instruments, particularly from Europe's Copernicus programme satellites, as well as from the **SWOT and/or TRISHNA** missions and their calibration.

Objectives

- **Share acquired or planned data** and activities undertaken with the local community on EO and water issues.
- **Identify key local institutional stakeholders** from communities and relevant government agencies in the water management sector, and invite them to discuss and exchange ideas (e.g. identification of crucial activities and needs necessary to fill in gaps in data and knowledge), in the view to co-design a pilot project concept and scope of work, eligible for future funding;
- **Agree on a consortium of partners;**
- **Scope an “AquaWatch New Caledonia” research project** including:

- Establish **key objectives, activities and related tasks** (e.g. identification of necessary datasets) to further generate **dedicated results** to AquaWatch programme implementation and operation;
- **Identify suitable New Caledonia site(s)** to ensure direct relevance to local water quality issue (e.g. impact of mining activities, aquaculture farms, climate & environment, agricultural exploitation, tourism and leisure economies, energy sectors, etc.) with the potential to create synergies (e.g. co-location of specific instruments such as the CSIRO's HydraSpectra sensor in support of Cal/val activities of EO missions; and in-situ data exchange);
- **Consolidate a suitable partnership** to carry on dedicated scientific activities and tasks;
- Define an adequate **funding envelope and the timeline** necessary for the project to generate concrete actions;
- **Communicate and share the results/outputs** of these systems, and explore potential ways to operationalize the project framework, tools and methods across the territory of New Caledonia and other Pacific Islands, Countries and Territories (PICTs);