



Mission Status Report 181

Reference Period: February 2022

sentinel-2

→ COLOUR VISION FOR COPERNICUS

Mission Status

- A set of major Level-1C and Level-2A products upgrades is available since [25 January](#).
- With this upgrade, Level-2A products have become compliant to [CEOS ARD](#) (Analysis Ready Data).
- Regarding Level-1C products, the following evolutions are included:
 - Correction of the radiometric bias between Sentinel-2A and Sentinel-2B;
 - Provision of Level-1C quality masks in raster format;
 - Addition of ECMWF (European Centre for Medium-Range Weather Forecasts) parameters;
 - Addition of CAMS (Copernicus Atmosphere Monitoring Service) parameters;
 - Addition of Level-1C snow/ice mask;
 - Provision of negative radiometric values (implementing an offset);
 - Addition of a DOI (Digital Object Identifier).
- Regarding the Level-2A products, the first five above-mentioned evolutions are directly inherited from Level-1C product and additional evolutions include:
 - Provision of negative radiometric values (implementing an offset);
 - Provision of Band 01 sampled at 20 m spatial resolution;
 - Addition of Level-2A Quality Indicators;
 - Aerosol correction using CAMS auxiliary data;
 - Improvement of clouds and cloud shadows detection;
 - Improvement of the topographic and casted shadows;
 - Improvement of the bright target classification over coastal areas;
 - Addition of a DOI.
- Sen2Cor Level-2A processor version 2.10, supporting the new processing baseline, was distributed as described [here](#).
- The mission is sensing systematically all land and water areas indicated [here](#), and the detailed mission acquisition plans are regularly published [here](#)
- An ad-hoc acquisition campaign is performing till March 2022 an extended coverage of the Seychelles for supporting scientific studies aiming at better estimating the carbon stock in seagrass soils.
- Level-1C (top-of-atmosphere reflectance) and Level-2A (surface reflectance) products are available on [Copernicus Open Access Hub](#) and on [Data and Information Access Service \(DIAS\) platforms](#).
- Information on data quality is available in two reports, one for [L1C products](#) and one for [L2A products](#).
- Some Data Hub anomalies and outages impacted the availability of the data access during the period. Please refer to the [news](#) page for the list of the single events.
- The following articles related to Sentinel-2 were published during the reporting period:
 - [Copernicus Sentinel-2 accelerates emergency response to Tonga volcano crisis](#)
 - [A young researcher who combines Copernicus Sentinel data for flood management](#)
 - [Innovative virtual toolbox uses space data to protect our planet1](#)
 - [Monitoring crop health across the Netherlands](#)
- Sentinel-2 videos and images have been published and are available [here](#).
- In 2021, Sentinel-2 remained as the top European mission in terms of scientific peer-reviewed publications (1703 during 2021) and data volume distributed to users.

Outlook

- Provision Sentinel-2 Collection 1 (including both Level-1C and Level-2A products) after the re-processing of the complete data archive.