

A detailed illustration of a satellite in space. The satellite has a central body with various instruments and antennas, and two large solar panel arrays extended outwards. The background shows a deep blue space filled with stars and a portion of the Earth's horizon at the bottom.

Reference projects

# Contributions to the Copernicus EO programme

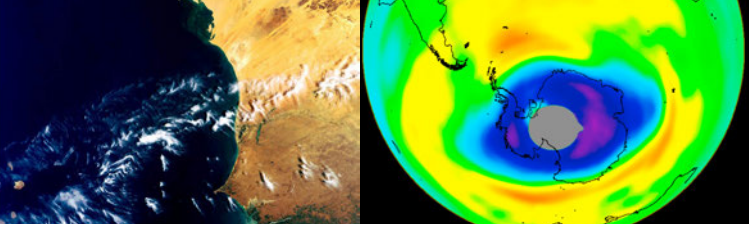
**werum**  
SOFTWARE & SYSTEMS

# Copernicus Long-Term Archive Service

One of the four Copernicus Long-Term Archives (LTA) is operated by Werum as a service in a public cloud environment using its **flexible, in-house developed orchestration framework**. Data products from the Sentinel missions are stored and catalogued for backup and data retrieval.

The service is designed with **strong safety considerations**, including security aware operations, solid backup strategies and resilience against disaster. The service software elements as well as the data storage are fully deployed in the European public cloud.

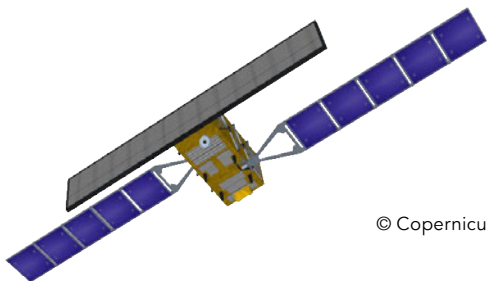




# Sentinel-1 Production Service

With the launch of the Sentinel-1C satellite unit, Werum operates the Sentinel-1C Production Service as part of the Copernicus common ground segment. Werum has been an active partner for the Sentinel-1 **Payload Data Ground Segment (PDGS)** solutions development in cooperation with Airbus Defense & Space SAS for more than 10 years.

For the Sentinel-1C Production Service, Werum uses and operates its own **Processing Service software**, which has been adapted to the Sentinel-1 specific workflows and the Copernicus Data Interfaces. The service software and platform elements are fully deployed in the **European cloud**.



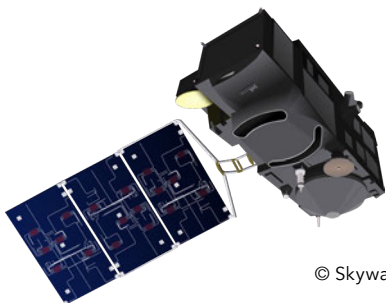
© Copernicus, ESA

## Contributions to Copernicus EO programme

# Sentinel-3

## Payload Data Processing

The **processing management solution for land and marine data** in the Sentinel-3 PDGS was also developed by Werum as a subcontractor of Telespazio S.p.A. and Telespazio Germany GmbH. The operational stability and high configurability of **Werum's PDGS solutions** have been a cornerstone for the successful operation and continuous evolution of the systems since their launch.



© SkywalkerPL

EUMETSAT operates the latest setup of the Payload Data Processing (PDP) system for the Sentinel-3 marine data and is supported by Werum engineers in cooperation with Exprivia S.p.A..

**Contributions to  
Copernicus EO programme**

# Partner in ESA's Bureau d'Etudes

The ESA Bureau d'Etudes is a consortium of specialists, led by Capgemini SAS, for studies and development of prototypes for the Ecosystem of the Copernicus common ground segment.

Werum supports the topics of **Data Portals and the evaluation of the new data format** for the Copernicus missions.

# Copernicus Reference System v1

The CSC Reference System in its first version has been developed in cooperation with Airbus Defense & Space SAS and CS Group. It provides a **reference and testing environment** for the Sentinel data processing workflows in a scalable cloud environment.

Werum is responsible for the development of the core services as well as the Sentinel-1 and Sentinel-3 production chains and the User Web Client. The reference system is equipped with the **full functionality of the operational production systems** and can serve as backup for the CSC Production Services.

[www.werum.de](http://www.werum.de)



Werum Software & Systems AG  
Anna-Vogeley-Str. 20  
21337 Lueneburg, Germany  
Tel.: +49 4131 8307-0

Programme of the  
European Union



implemented  
by



Funded by the EU and ESA. The views expressed herein can in no way be taken to reflect the official opinion of the European Space Agency or the European Union.

© 2024 Werum Software & Systems AG. All rights reserved. Werum and HyperTest are registered trademarks of Werum Software & Systems AG. All other names of products and services are trademarks of the respective companies.