CloudFerro (CF) is a Polish technological company established at the beginning of 2015 by a group of experienced executives of IT and telco business. CloudFerro is the expert in building & maintaining the highly scalable cloud & application solutions based on Open Source and in delivering the environment for big data processing & visualization – especially for Earth Observation data with idea of putting close together big data & customer accessible big processing power. CloudFerro's infrastructure of servers and systems is based in Tier3

independent data centers in Warsaw, Poland. Company is certified for compliance with ISO 9001 and ISO 27001 standards. CloudFerro cooperates with many international clients. In particular CloudFerro operates CREODIAS platform, provides hybride cloud for ECMWF and builds as co-consortiant with Thales Alenia Space WEkEO DIAS platform.

Creodias – DpaaS:

The **Sen4CAP** software is available as open-source freeware and is very well suited to be run in a cloud-computing environment. CREODIAS has developed a VM image on which the Sen4CAP software is installed and checked. When this image is installed on a CREODIAS VM, any user can run the Sen4CAP software, benefitting both from direct access to the complete Copernicus Sentinel satellite data repository and dynamically scalable processing opportunities of the CREODIAS cloud computing environment.

Full description you can find on the CREODIAS site:

https://creodias.eu/eo-data-software-based-services

Sen2Cor performs a pre-processing of Level-1C (L1C) Top of Atmosphere (TOA) image data, and applies a scene classification an atmospheric correction and a subsequent conversion into an ortho-image Level-2A Bottom-Of-Atmosphere (BOA) reflectance product. Outputs are an Aerosol Optical Thickness (AOT) map, a Water Vapour (WV) map and a Scene Classification map together with Quality Indicators data.

Serverless processing with product delivery to the client S3 private bucket

The **COH6** S1 SLC coherence mapping is a fairly complex operation. It's basically a measure of radar backscatter change between two points in time, and can give an insight in surface dynamics. It's calculated from the S1 complex data (SLC) from a pair of two S1 SLC images, set apart by a certain temporal baseline. The image pair has to be related in the following ways:

- Both images acquired with either S1A or S1B
- Both images should be in SLC format
- Both images should be from either ascending or descending orbits
- Both images should have the same Relative Orbit
- Both images overlapping the same geographical area

This means that an image pair is always a multiple of 6 days apart, which is the revisit time of the S1 satellites of the same relative orbit.

Serverless processing with product delivery to the public cache. Optionally can be delivered to the private S3 private bucket.

The Cloud-Optimised Geotiff (**COG**) processor converts raster data (at the moment only S-1 GRD, but work is ongoing to include S-2 L2 MAJA, S-2 L2 FORCE, S-1 CARD-BS and S-1 CARD-BS-MC datasets. The COG processor is based on a simple GDAL command.

Serverless processing with product delivery to the public cache.

Optionally can be delivered to the private S3 private bucket.

CardBS: Serverless processing with product delivery to the public cache. Optionally can be delivered to the private S3 private bucket.