



Attachment no. 1

For the inquiry no 22/HARMONIA/2022

Technical parameters

Order subject:

The subject of the order is a Cloud Service (Cloud) compatible with the Infrastructure as a Service model (IaaS) and with constant access to actual and archival Copernicus Earth Observation data (Copernicus EO data).

Kod CPV: CPV 72410000-7 – Suppliers services

Requirements:

- 1) The table below shows minimal parameters of the infrastructure required by the purchaser.

Name	Number of computing cores	RAM memory	SSD memory	GPU memory	HDD memory	Access time in months
Virtual machine (VM) no 1	1	4GB	16GB	No	2TB (with possible extension to 20 TB)	28 months (with possible extension to following months)
VM no 2	4	30GB	128GB	No	15TB (with possible extension to 30 TB)	28 months (with possible extension to following months)
VM no 3	8	64GB	200GB	No	No	12 months (with possible extension to following months)

Table 1. Minimal parameters of the infrastructure required by the purchaser

- 2) Each VM has to have access to an external IP address. Required operational systems - Ubuntu and / or Windows.
- 3) EO data has to be discoverable with available web EO data catalogue with search engine and utilizing open REST API for data discovery. Every VM has to have ready-to-use access to all free EO data catalogue, available via VM's file browser (e.g. mounted with NFS/S3FS etc.) and additionally allow for data access using Python programming language (e.g. via boto3 module).
- 4) Minimal required access to the Copernicus EO:
 - a) Sentinel 1 (actual data, archival data acquired not earlier than year 2015)
 - b) Sentinel 2 (actual data, archival data acquired not earlier than year 2015)



- c) Sentinel 3 (actual data, archival data acquired not earlier than year 2016)
- d) Sentinel 5p (actual data, archival data acquired not earlier than year 2018)
- e) Landsat 8 (actual data, archival data acquired not earlier than year 2018)
- 5) Purchaser can purchase all or selected VMs listed in the Table 1.
- 6) Purchaser can buy additional months of access to selected VMs according to principals and prices described in the Attachment no 2.

SLA and technical support

- 1) Tenderer will ensure access to all services and data described in the section Requirements 24 hours a day, 7 days a week and with 99% accessibility in each month (including Saturdays and Sundays).
- 2) Accessibility is to be calculated as described below:
Accessibility =
$$\frac{\text{Total Potential Accessibility} - (\text{Measured Downtime} - \text{Approved Downtime})}{\text{Total Potential Accessibility}}$$

Where:

- (i) „Measured Downtime” time in minutes in particular month (including Saturdays and Sundays) in witch particular service is marked and “Unavailable”.
- (ii) „Approved Downtime” time in minutes in particular month (including Saturdays and Sundays) in witch Service is marked as “Unavailable” being a result of planned maintenance about which Purchaser is informed two week in advance.
- (iii) „Total Potential Availability” total time in minutes in particular month (including Saturdays and Sundays).
- (iv) „Unavailable” means that:
 - A) within the Service or any part of it an incident occur or any other failure which will result in shortage in access, limited access or access not fulfilling what is described in the section Requirements.
- 3) Tenderer will assure technical support covering: technical assistance, system errors, software errors and general technical issues.