



## NRENs' involvement in the GÉANT and OCRE cloud 2019 tenders

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## Aim of this document

This document informs institutions about the upcoming 2019 OCRE and GÉANT cloud services tenders. It explains the organisational structure and the process of participating.

## Introduction

The benefits of a Digital Single Market for cloud services for research and education have proven themselves beyond expectations. The first stage of the collective NREN cloud efforts has been completed in the GÉANT GN4-2 project. The positive impact is clear:

- 300+ institutions are currently consuming services through the GÉANT IaaS Framework;
- at a total expenditure to date of ~€13 million (status March 2019).
- Institutions welcome the collective NREN efforts on clouds in GÉANT.

*“After moving 98% of our infrastructure in Azure, we don’t have to worry about the physical hardware and administrative and contract costs are much lower. Taking all this into consideration, the value of HEAnet facilitating our migration to the cloud is really immeasurable.”*

Dr. Ray O’Neill, Head of ICT and Procurement, Quality & Qualifications Ireland

*“My first experience in working with a cloud service was very positive. All in all, the cloud service, in my opinion, offers many advantages in teaching scenarios on ICT topics.”*

Teacher of the Lycée des Arts et Metiers (LAM), Luxemburg

*“We’re collaborating with the universities of Bergen and Oslo to demonstrate how we can create a common market place, a sort of AppStore, where the universities can act as both consumers and suppliers. In this work we have utilized both container technology and Kubernetes.”*

Hildegunn Vada, UNINETT

## The upcoming tenders

The next phase of the cloud collaboration is even more ambitious and split across two projects:

- [GÉANT GN4-3 \(in WP4\)](#)
- [Open Clouds for Research Environments \(OCRE\)](#)

In OCRE, GÉANT coordinates a consortium with partners CERN, RHEA and Trust-IT.

OCRE facilitates the usage of **commercial cloud (IaaS, PaaS, SaaS) and Earth Observation services** by the European research community.

- OCRE aggregates requirements and demand of the research community into a public procurement / tender, to select capable service providers.
- OCRE stimulates adoption through ready-to-use agreements with suppliers and by making available €9.5 million in EC adoption funding to researchers, via vouchers.

The project is part of the EC European Open Science Cloud (EOSC).

OCRE project stages:

- Community requirements and demand gathering: January – July 2019
- Tender: October 2019 - Q1 2020
- Adoption funds
  - 500.000 euro in vouchers in 2019, through the GÉANT IaaS Framework agreements
  - 9 million euro in adoption funds in 2020 and 2021, for services selected in the OCRE tender

Parallel to OCRE, in the GN4-3 project, the GÉANT project cloud team will run a tender for **education learning management systems**, which will use the same timeline. Both tenders will have an approach that is similar to the earlier GÉANT 2016 IaaS tender (the current IaaS framework), where the NRENs have a pivotal role, to act as national service delivery hubs.

What follows is a brief overview of the current status, to enable NRENs to prepare for the tenders. Key aspect: *The tenders are opportunities for NRENs to position themselves more firmly as national cloud delivery hubs. Equally, the scope of OCRE allows other organisations to fulfil such a coordination role as well.*

Which services will be included in the upcoming tenders?

I. **The three-year (2019 – 2021) [Open Clouds for Research Environments \(OCRE\)](#)** project is the successor to the GÉANT IaaS and Helix Nebula Science Cloud (HNSciCloud) tenders.

The services included in the OCRE tender will encompass:

- a. Infrastructure as a Service (IaaS): Compute, storage, network and related services.
- b. Platform as a Service (PaaS): Compute, storage, network and related services.
- c. Software as a Service (SaaS): File storage (sync and share), online collaboration, simulation and virtualisation tools.

Suppliers likely to respond include Microsoft (Azure and potentially Office365), Amazon (AWS), Google (GCP and potentially G-Suite), IBM, Oracle and European suppliers such as CloudFerro, Cloudsigma and T-Systems.

- d. Secure Earth Observation commercial services: building on the Copernicus Data and Information Access Services (DIAS).

II. **GÉANT Learning Management Systems (LMS) Tender**, through the GÉANT GN4-3 project: Virtual Learning Environments (VLE) and LMS services such as Moodle, Canvas, Blackboard Ultra/Learn, SAKAI, Brightspace, itslearning.

## How will the tenders work?

The details of the tenders will be put in place over the next months. This is what we know for now. The tenders will be conducted in accordance with the 2014/24/EU procurement directive and will result in framework agreements with all suppliers who qualify (a portfolio of services). The **framework agreements will be valid for four years from Q1 2020 up until Q1 2024** and will be signed by GÉANT. This ensures availability beyond the OCRE project duration. The providers selected in the tenders will become an integral part of the EOSC service catalogue and will be connected to the GÉANT data network and the community's single sign-on (SSO) systems, bringing them into the heart of the research community's ICT ecosystem.

OCRE will aggregate demand through the concept of '**buyer groups**': Institutions gathering in groups, behind a coordinating organisation. This **coordinator** will play an important role during the tender *preparation* by:

- Gathering the needs of organisations: which services are in demand and which requirements does the group have?
- Aggregating demand: what is the expected level of usage of this group?
- Ensuring participating institutions are listed in the tender documentation. European public procurement legislation requires organisations who want to be able to use the results of a tender, to be known in advance, to suppliers considering responding to this tender.

After the OCRE tender is completed and the framework agreements are available, the buyer group coordinator will be involved in the service *consumption* as well, by:

- Making available the contracts to the group members (similar to the '*Referrer*' role in the GÉANT 2016 IaaS tender)
- And optionally, by acting as a lead buyer, where the coordinator purchases services from suppliers and then distributes the acquired resources to the group members (similar to the '*Underwriter*' role in the GÉANT 2016 IaaS tender).

To achieve favourable conditions of use with the suppliers, it is important to bring scale and concrete commitment on the demand side. OCRE prepares to do so through two **types of buyer groups**:

- a. Groups where the coordinator represents a broad community of research and education institutions: a broad (inter)national buyer group.
- b. Groups where the coordinator bundles institutions from a research domain.

OCRE requires an efficient delivery channel and will therefore fold demand into the largest possible groups, by pointing institutions to buyer groups and smaller buyer groups to larger buyer groups. In practice this means that:

- When a single institution requests OCRE to be included in the tender, OCRE will point this institution to its NREN or to a research-domain-specific buyer group, to be included.
- When a buyer group requests OCRE to be included in the tender, OCRE will assess whether this group represents the largest scale and / or most explicit commitment, or whether there is another larger buyer group in place, where this group can become a part of, to bundle demand.

## How can NRENs participate?

With the tenders being the successor to the GÉANT 2016 IaaS tender, it is important for NRENs who want to continue and evolve their cloud delivery role, to participate in both tenders and **to offer their institutions access to the full portfolio**; to all the service types: cloud (IaaS, PaaS, SaaS), Earth Observation and LMS.

The envisioned NREN contribution is as follow. Each NREN is advised to:

- Reach out to its member institutions to:
  - Inform them about the upcoming tenders;
  - Gather input amongst its member institutions: by asking about the services they plan to use over the next years.
- Sign up, as NREN, for the OCRE tender as a national 'buyer group', with the NREN acting as coordinator of this group.
  - Ensure institutional inclusion.
    - Level 1** (minimum level):  
Incorporate institutions as potential beneficiaries in the tender, preferably with **a list of named organisations**. NRENs who depend heavily on governing bodies, such as ministries, are advised to include these institutions in the list of interested parties. Being mentioned does not constitute any type of formal commitment for institutions to purchase services through the frameworks. It is simply an expression of interest.
    - Accurately present the scope and depth of demand:
      - Level 2:**  
Specify the expected usage by this national buyer group: expected number / percentage of institutions to pick up the offerings, for each service type. This is to provide a realistic view of expected usage.
      - Level 3** (preferred level):  
Bring an explicit upfront volume commitment into the tender; an aggregated minimum amount of consumption in EUROS, for the buyer group as a whole. It is expected that such explicit commitment will lead to significantly higher discount levels from suppliers.
  - Make the agreements available in the national buyer group, where either
    - each member institution buys resources individually;
    - or
    - the NREN acts as a lead buyer: purchases resources from suppliers and distributes these across group members / institutions.
- Add a cost recovery mechanism inside the buyer group, to compensate the coordinator / lead buyer for its efforts. This **cost recovery fee** is decided and handled inside each buyer group and added on top of the suppliers' prices.

## Stimulating adoption

The OCRE project will stimulate the uptake of commercial digital services by researchers.

- In 2019, OCRE will make available €500,000 to individual researchers, through a voucher model, via the suppliers in the current GÉANT IaaS framework (providers which were awarded a contract in the 2016 IaaS tender).
- In 2020, €4,225 million will be made available for cloud services (IaaS, PaaS, SaaS) and €4,725 million for Earth Observation services, for usage of the services resulting from the OCRE tender, to be spread across individual researchers, individual institutions and buyer groups.

## Important Dates

### Preparation

#### 31 May 2019

- NREN response due: Will your NREN participate in the tenders, to coordinate a national buyer group and make the services available in your country? Yes/No.
- Which role will you take in the tender? Referrer/ Underwriter.
- Provide a first estimate on the type and amount of services which are expected to be consumed by institutions in your country in the next four years.

#### 31 July 2019

- Provide national legal requirements, if applicable.
- Buyer groups in place. NRENs provide the GÉANT cloud team with the list of eligible institutions, who can use the tender outcomes and information on the expected uptake, preferably with an aggregated, expected minimum consumption per year, for the 4-year contract duration.
- OCRE publishes a draft version of the tender, for suppliers to prepare for the tender.
- 500.00 euro in EC cloud adoption funds (vouchers) for researchers to use the services in the GÉANT IaaS framework.

### Execution

#### 1 October 2019

- Tender goes live. Publication of tender documents (OJEU notice).

#### Q1 2020

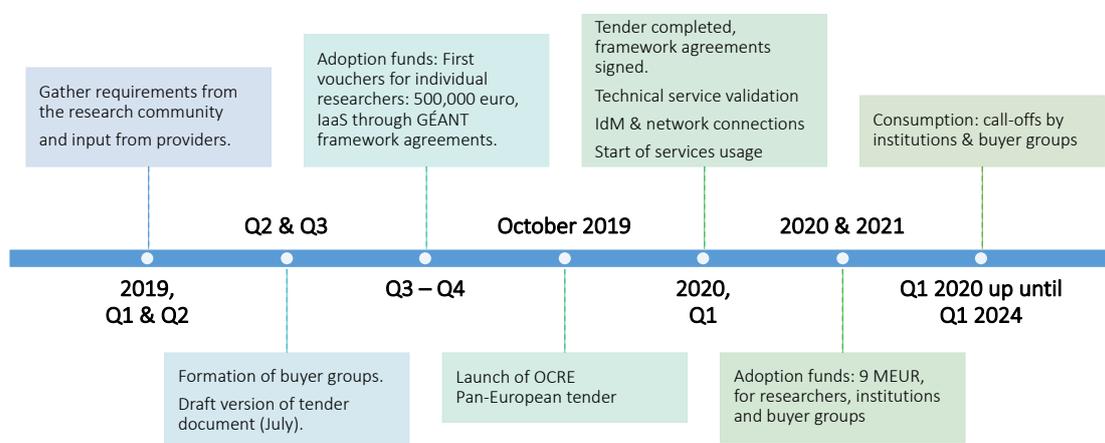
- Tender evaluation completed.
- Framework Agreements signed.
- Services available.

#### 2020 and 2021

- 9 million euro in EC adoption funds for usage of the services selected in the OCRE tender

#### Q1 2020 up until Q1 2024

- Consumption through call-offs.



## Next steps

While we realise there are many details still being worked out, now is the time to speak with your stakeholders and institutions, to let them know what is coming and to secure your delivery role: to help institutions see the opportunities cloud services provide to them; how aggregating demand in the 2019 tenders will lead to favourable conditions and how a Digital Single Market will save them time and money and enhance research. NRENs can do so via individual talks and meetings, speaking at internal institution events and via email, newsletters, social media and their website.

The GÉANT cloud project team will of course provide support with these steps. For help and to share your experiences in getting the message across, please contact the GÉANT Cloud Team at [clouds@geant.org](mailto:clouds@geant.org).

We will keep you posted on progress from our end. We ask that you do the same. Together we can make the next phase of our cloud collaboration even more successful.

### Further information

Public websites:

- <https://clouds.geant.org/>
- <https://www.ocre-project.eu>

GÉANT cloud intranet, for NREN cloud managers

- <https://geantclouds.sharepoint.com/sites/clouds>