Commercial Cloud and other consumable Digital Services

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Cloud and Digital Services

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Restricted

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Agility/Flexibility - consumption of solution

Workloads –

- ➢ Solution consumable as a service (PaaS; SaaS)
- ➢ SD-WAN drives solution performance
- ➢ All data and compute resources in hyperscale
- ➢ IOT support, abstraction and analysis (AI)

LEARNING MANAGEMENT

K-12

ENTERPRISE SUITE

EXTENDED CRM

IOT

LIBRARIES

HPC

MACHINE LEARNING

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Cloud - Commercial vs Community vs on-premise

workload

Commercial –

➢ Consumable as a service

➢ Hyper-scalable

➢ Sustainable

➢ SLAs –

  • 100% Uptime

data

Community –

➢ Hosted by member

➢ Limited scalability

➢ Not sustainable (budget cycle)

➢ SLAs –

  • Resource availability

On premise –

➢ Resource management

➢ Lack of interoperability

➢ Continuous renewal

➢ SLAs –

  • Maintenance downtimes

recovery

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Cybersecurity, data sovereignty and protection

Commercial cloud platforms –

- ➢ Extensive opportunities for threat surveillance (SOCS)
- ➢ Compliant regarding the use of personal data (GDPR)
- ➢ Meet global information community standards (ISO2701)
- ➢ Penalties
- ➢ Local data centres/resellers

TRUST *and identity –*

2019 eduGAIN

- ➢ 60 Federations active
- ➢ 4 Federations with voting rights
- ➢ 11 Candidate federations
- ➢ 5495 entities

- ➢ GEANT SP Proxy since 2010
- ➢ Connecting SPs from the GEANT community to eduGAIN
- ➢ 50 Service Providers connected

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NREN – What's our role (consumables)?

Networks –
- ✓ Provide national bandwidth
- ✓ Regional collaboration
- ✓ Global connectivity

Above the Net –
➢ Catalogue of cloud and Digital Services
➢ Develop relationships with market in-country
➢ Provide access to call-off agreements
➢ Support local cloud forums
➢ Procure on behalf of R&E community (underwriter/Buyer Group)
➢ Evangelize services via webinars and conferences
➢ Host agreed upon supplier engagements
➢ Communicate funding calls for institutes
➢ Provide support for local buyer groups

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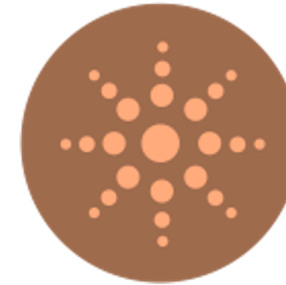
GEANT cloud framework

Pan-European tender - Infrastructure as a Service (IaaS)
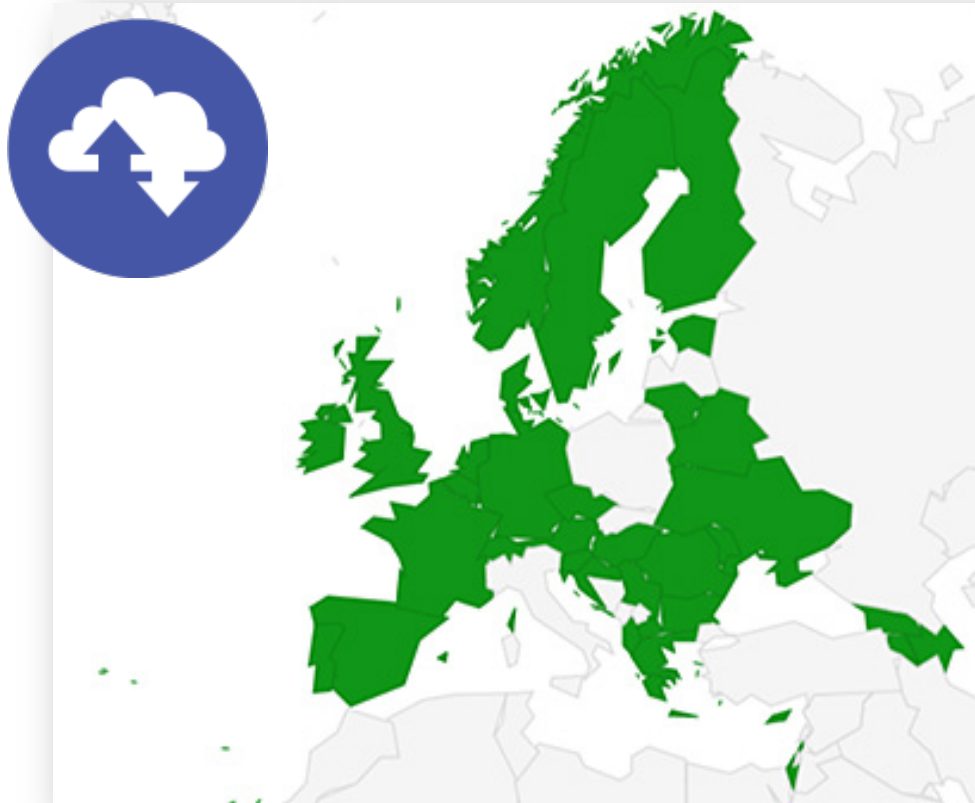
- 36 participating NRENs through GÉANT
- Using EC Procurement Directive (2014/24/EU)
- 10 000 R&E institutions as a Single Digital Market
- 11 different IaaS solutions
- 21 providers, incl. Amazon & Microsoft resellers
- Open procurement – not winner takes all
- 4 year framework agreements

Ambitions

OCRE | Open Clouds for Research Environments

Europe is the largest producer of research data in the world.

The EC wants to increase the use of this data and interconnect research IT infrastructures through the European Open Science Cloud.

OCRE intends to –

1. Provide researchers with access to commercial cloud and digital services.
2. Drive the adoption of such services and stimulate the European digital economy.

- Promote agility in local research activities (harness analytics platforms; machine learning; AI)
- Support collaboration (both regional and global)
- Drive broader EOSC ambitions (OPEN research; FAIR data; stimulation of SME development; sustainability)
- Stimulate European digital economy
- Grow emerging earth observation digital solutions (DIAS)
- Provide for acquisition and service discovery (onboard onto EOSC-hub)

EUROPEAN OPEN SCIENCE CLOUD

OCRE project – key points

European research - adoption of digital services in support of innovation and agility
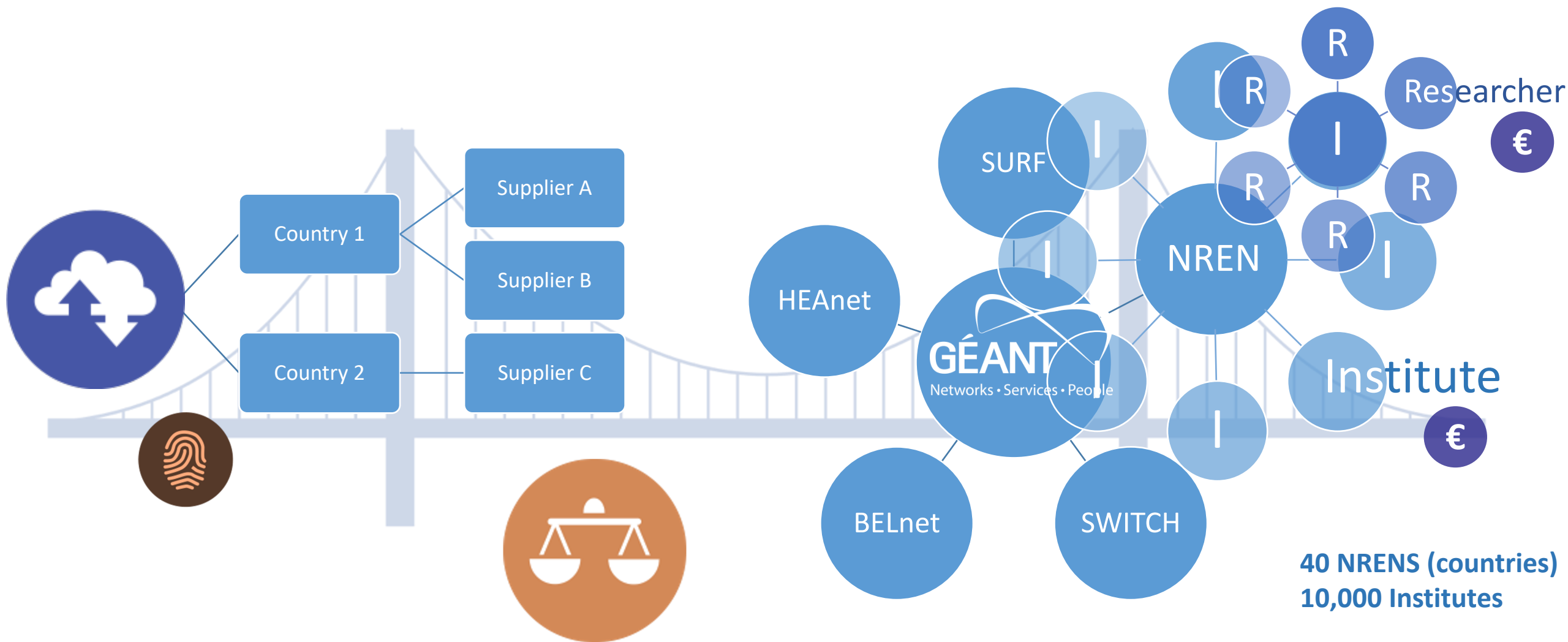
❖ Procurement
- o Easy to use pan-European procurement frameworks –
  - ➤ IaaS; PaaS; SaaS (as platform and software relates to infrastructure)
  - ➤ Platform solutions for Earth Observation consuming Copernicus data
- o European providers of digital services –
  - ➤ Local suppliers of platform in each country
  - ➤ Extended local services in support of platform
  - ➤ Data located in Europe on GDPR compliant, standardized hosting
  - ➤ Providers include a limited number of local resellers of global hyperscale platforms facilitating short-term compute at scale services and bursting as demand for capacity spikes
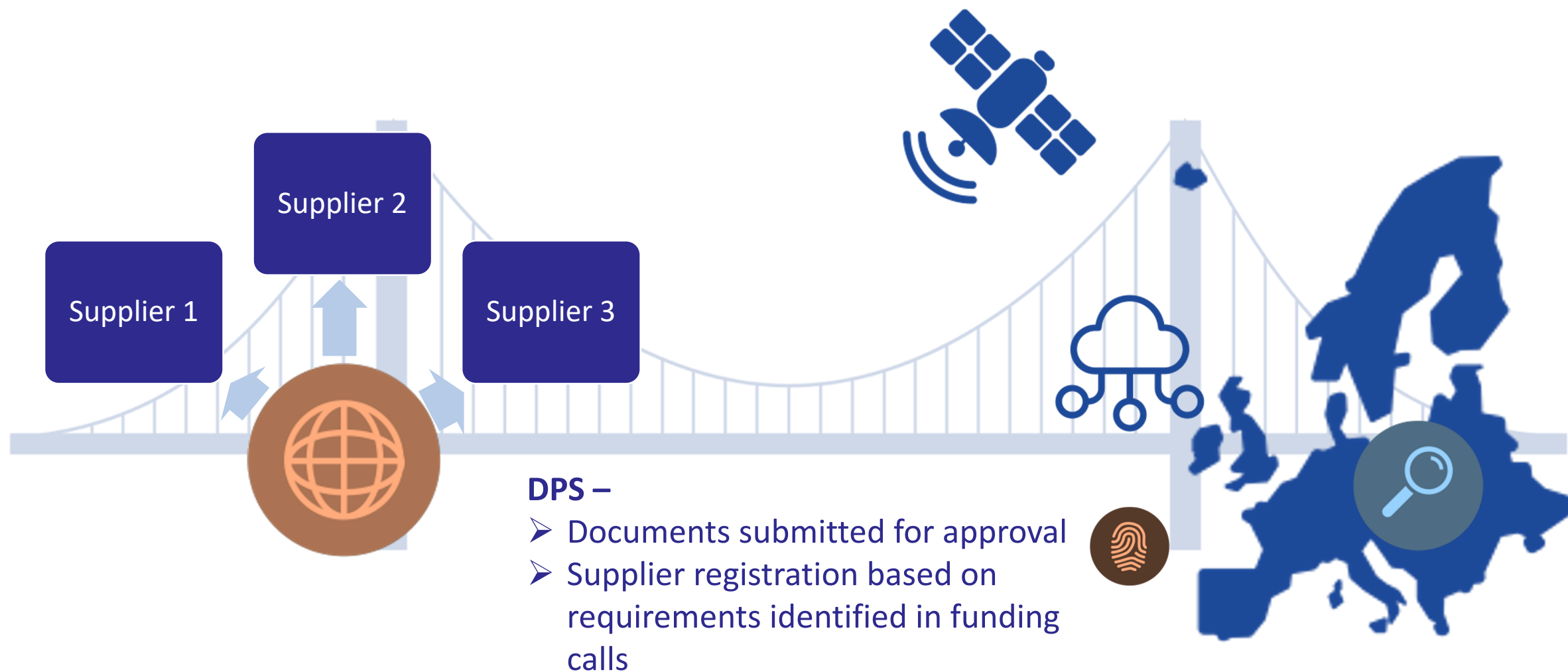
❖ Adoption funding
- o Early adoption by researcher (Wave 1)–
  - ➤ Cloud vouchers procured from providers on the existing GEANT IaaS framework
  - ➤ 2nd part – vouchers to be procured from suppliers on new OCRE frameworks (incl EO) = Q2 2020
- o Institutional project support (Wave 2) will procure services via OCRE frameworks
- o Buyer group project co-funding will provide for the 50% sponsorship for digital services for approved projects

OCRE in a nutshell

40 NRENS (countries)
10,000 Institutes

OCRE in a nutshell

Supplier 1

Supplier 2

Supplier 3

DPS –
- ➢ Documents submitted for approval
- ➢ Supplier registration based on requirements identified in funding calls

Thank you

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