# OCRE & Orange Webinar

Jean-Pierre Aerts – Product Management







## **Agenda**



Start	End	Topic	Who
10:00	10:10	Introduction by Belnet	Jean Pierre Aerts
10:10	10:15	About Orange	
10:15	10:35	Orange Public Cloud Platform and Services	OCRE Orange Team
10:35	10:50	Orange Support for Projects	
10:50	11:00	Q&A	



# OCRE (Open Clouds for Research Environments) – General introduction



- Framework agreement (EU/NL procurement) for cloud services
  - The OCRE tender is conducted under the procurement law of the Netherlands (NL), called AW12. This procurement law conforms to EU procurement directive 2014/24/EU with some national implementation specifics.
- The framework agreements will be valid for four years until 2024.
  - Jan 2021 Dec 31, 2021, will have a 5-year term
  - Jan 2022 Dec 31, 2022, will have a 4-year term
  - Jan 2023 Dec 31, 2023, will have a 3-year term
  - Jan 2024 Dec 31, 2024, will have a 2-year term
- Can be immediately consumed without any commitment.

#### More information:

https://www.ocre-project.eu/national-research-and-education-networks-nrens-and-member-institutions



### **OCRE** @ Belnet

- Belnet acts as a referrer and can guide you in making the right decisions and getting in contact with the right people.
- Contracts are signed between the customer (institute) and the partner/provider itself.
- Huge offer for laaS, SaaS, PaaS. It also includes an "Earth Observation" tender for Copernicus satellite data processing services built on the DIAS platform.
- Want to find out more, please send an e-mail to: cloud.geant@belnet.be.



### **OCRE Providers & Partners**



- OCRE: Open Cloud for Research Environments
  - Substantial discounts with 13 cloud providers
  - No Call for Tender needed, just sign a contract with the reseller
  - Regular work shops: subscribe to our OCRE Fl@sh
  - Advice by Belnet: no strings attached, no costs attached
  - Cloud Connect: Express route for MS Azure













Who we are

What we are proposing

How to engage us

How we think we can help

1

2

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# Who we are









# Business Services

143000

**Employees** worldwide

256 million

Customers globally

3000+

MNCs

**500**+

start-ups supported

7000+

Registered patents

230 In Europe

in 2019

700 million€ on R&I

100+

**Research partners** 







5



3 900

Al, Data & Digital experts

2 400

**Cloud experts** 

2 100

Cyber defense experts

**8 000** 

employees in Research & Innovation



#### Belgium





More than 1,1 million



1,279 Billion€

Turnover (2018)



1 459 employees







Mobile solutions, fixed and IoT combined



100%

CARRIER GRADE Fiber network



100 % coverage 99,7% deep indoor Cloud is at the heart of our Engage 2025 strategic plan



"Accelerate the development of IT services"



## Offering unique capacity to deliver trusted multi-cloud foundations, globally

#### **End-to-end Service offer**

24x7x365 Operations **Applications Data platforms Multi-Cloud infrastructures** Connectivity

#### Global reach



5 MSC, 16 SOC, 10 CSO, 12 CCoE, 70+ DC





















# What we are proposing





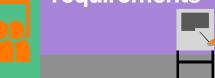


## Flexible Engine Orange public cloud solution

workshops per year and per Country

## **Solution** compliant

with all minimum requirements





21/21

**Countries awarded** 



a Collaboration **Exclusive** Model aligned to promote the adoption of cloud services

# conditions

for infrastructure and support services

- network "peering" with Géant
- waiver of outbound charges













**European Cloud platform** 

with 6 data centers in Europe, Local Contracts, full GDPR compliant, Designed, built and operated by Orange. Based on openstack; the most widely deployed and supported cloud infrastructure.



Flexible Engine to be part of Gaia-X

ecc Ora

ecosystem, with Orange as a founding member.

#### **Highly certified**









A complete laaS solution with a wide range of PaaS features



With a secured perimeter designed by **Orange Cyber Defense.** 

24/7 SOCs (16) and CyberSOCs (10)

#### **Supporting**

17 200

32 500

2 100

99,99%\*

Virtual machines

Terabytes stored

**Customer domains** 

Service guarantee (99,998% in 2020)







#### Flexible Engine Services

#### Compute













































Elastic

Bare Cloud Metal Server Server

**Image** Management Service

Auto Scaling

Cloud Container **Engine** 

**Dedicated** Cloud

**Dedicated** Host

Cloud Server Server Migration Backup Service Service



Reduce Service

Data **Pipeline** Service

Service

Data Warehouse

Data Ingestion

Machine Service

Learning Stream Services Service

Cloud

Cloud Search

Service

ModelArts

Services

#### **Storage**



#### **Management**



#### **Database**







Service







Service



File

Service





Recovery

Service



Recovery



Application

Backup





Service







Log

Tag Management Service

**Security** 

Cloud Trace

Service

(--)Cloud Eve Identity and Access

Management

Resource

**Template** 

Service



Services

(Rel & Doc)



Replication

Service





Service

**Network** 







Balance



Network



Name

Service





Connect





**Endpoint** 



Firewall













Notification



Service



**Application Services** 





Gateway



Workspace

Management Service

Application Firewall

#### **Including advanced services**



#### **ModelArts**

Artificial Intelligence PaaS, single platform to integrate and label data, train models, manage inference and deployment of models, all thru an intuitive interface.



Label data Train model Deploy model

#### Cloud Container Engine (CCE)

a fully integrated CaaS following Kubernetes community releases.

#### **GPU flavors**

with NVIDIA cards enabling high-performance computing, graphics applications or artificial intelligence processing.

Cloud Search Service (CSS) distributed search service, fully compatible with Elasticsearch, providing the ability to search structured and unstructured data.



elasticsearch







11111

#### A flexible pricing structure

#### Computing

- Minute granularity billing
- Discount for monthly use



OS billed on top per hour

- Discount with reserved
  - 1-, 2- or 3-year plan
  - with or without upfront

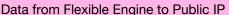
#### 650h 730h

#### Storage

- **Block Storage** 
  - Hourly billing
  - **GB** granularity
- **Object Storage** 
  - Hourly billing
  - GB granularity
  - degressive price >50TB
  - put and get requests



#### **Network**



- by GB by Month
- degressive price >10 000GB
- Inbound traffic from internet: free

Direct connect

VPN aaS: hourly one time charge

by Month

Floating IP: monthly

Load Balancer aaS: hourly

#### **Database**

Database services: hourly



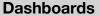
#### **Data analysis**

- MRS: billed on top of VM price
- MLS : per service
- DIS: per partition
- DPS: per activities



#### **Orchestrator**

Included



Included





#### Security

Security services:









Enter a service or function name.

Q

**All Services** 

My Favorites

#### Computing v

Elastic Cloud Server (2)

Elastic, scalable computing servers



Bare Metal Server (0)

Provides dedicated physical servers for tenants



Cloud Server Backup Service (4)

Secure, reliable cloud server backup



Cloud Container Engine (0)

container service that features high availability and elastic scalability



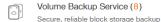
Image Management Service (7)

Self-service image management

#### Storage v











Virtual Private Cloud (3)

Provides securely isolated virtual networks



Elastic Load Balance (2)

Distributes traffic across multiple ECSs



Direct Connect

High-speed, stable network access service



Domain Name Service (0)

Stable, secure, fast domain name resolution



NAT Gateway (0)

High-performance Internet gateway



VPC Endpoint (0)



Contractual Documents ©Orange Business Services 2021 Legal Information









# How to engage us







### Because it has to be easy to start discussing together, we are implementing multiple options

■ Contact

option in the

**OCRE CLOUD CATALOGUE** 



**CRE** landing page



ocre.orange@orange.com



registering for our regular webinars



attending our regular webinars thru Cisco WebEx<sup>TM</sup>

(slot to be proposed)



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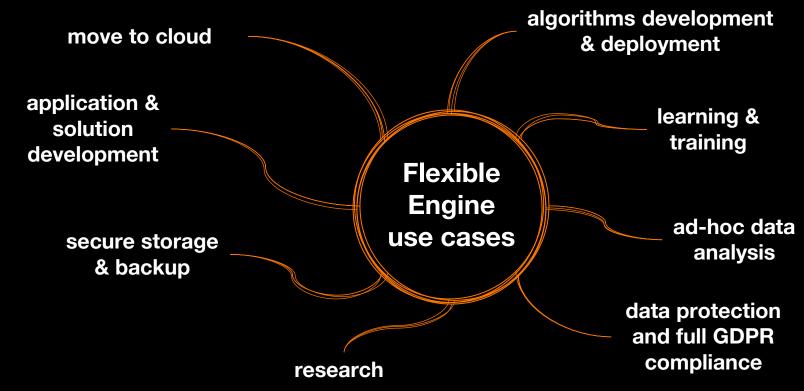
# How we think we can help







#### Supporting multiple use cases









#### With clear benefits

Fullservice platform Cost effective solution

Open source based

**Service** oriented

Up to 3months free trial

full suite of laaS & PaaS in constant evolution

plus OCRE specific conditions

agile and flexible, avoiding vendor lock-in

professional services, support, clinics and webinars

with no financial risks or guarantees







## Feedback & Q&A









Cloud at the heart of our strategy



Flexible Engine, Orange public cloud

Business Services



performance and open-source



secured by Orange CyberDefense









# Annexes







#### **Cloud Services**

HOME | INFRASTRUCTURE | CLOUD SERVICES

sobloo infrastructure relies on Flexible Engine public cloud solution operated by Orange Business Services and based on OpenStack ™ technology.

#### Description



sobloo laaS (Infrastructure as a Service) solution allows you to manage your virtual infrastructure from an online console.

- A smart elastic service with auto-scaling functionalities.
- . The ability to manage one or multiple regions and easily implement your high availability strategy.
- Open and documented APIs will allow you to easily administrate your platforms and gain agility.
- . 100% digital access to your infrastructure: rights management, monitoring, management of your resources and network parameters, ...
- · A pay-per-use model without commitment



















amcor

















Business Services













STRATIO





